



Planning Statement

Lower Stumble Exploration Site, London Road,
Balcombe, West Sussex, RH17 6JH

September 2019

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Planning Environment Design

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1 Introduction

1.1 Application Details

1.1.1 This Planning Statement is prepared on behalf of Angus Energy Weald Basin No.3 Ltd for the removal of drilling fluids and an Extended Well Test at Lower Stumble Wood, Hydrocarbon Exploration Site, London Road, Balcombe, Haywards Heath, RH17 6JH.

1.1.2 In the Autumn of 2018 Angus carried out a 7 day well test on the Balcombe 2Z well, but due to leftover drilling fluids in the well sustained oil flows were not achieved. In February 2019 Angus attempted to return to the well to simply pump out the remaining drilling fluids, before then leaving the well suspended in a state ready for an Extended Well Test (EWT). However, the County Council deemed that the existing planning permission which ran for 6 months from the beginning of the Autumn 2018 test had expired due to notification to the council that the original work had 'finished'. The operation was therefore cancelled.

1.1.3 Angus now intends to return to the well to carry out the originally proposed 'pumping operation' followed by an Extended Well Test as detailed in the attached decision tree (Appendix 1).

1.1.4 This proposal is a two-stage activity:

Stage 1: Pumping out previously used drilling fluids to ascertain the presence of dry oil in the well (up to 4 weeks); and

Stage 2: Should oil be seen to be present, an extended well test would be carried out over a period of 3 years.

1.1.5 The intention of the proposed stage 1 operation is to remove this remaining fluid from the wellbore, after which oil may begin to be produced. Assuming that the first stage activity is successful and oil presence is seen, the operator would carry out stage 2, an Extended Well Test (EWT). If not, then the operation would likely cease at this point.

1.1.6 The proposed operations do not involve any hydraulic fracturing and for the avoidance of doubt Angus Energy can confirm that it is not proposing to hydraulically fracture this well in the future.

Purpose of Statement

- 1.1.7 This Statement provides details of the application site as it currently exists, the site's planning history and context, the proposed development, and how the proposals may impact the local environment and community.
- 1.1.8 This Statement assesses the proposed development's compliance with the various planning policies that constitute the Development Plan for the area and with other material planning considerations that are relevant to the determination of the planning application.
- 1.1.9 Furthermore, although WSCC has confirmed that an EIA is not required (discussed further in section 6 of this statement), there is still the potential that the proposed development could generate environmental effects. This statement summarises the accompanying technical reports and identifies any potential environmental impacts and effects that might be experienced and where necessary to outline those mitigation measures that would be put into place to avoid or minimise any predicted, adverse effects.
- 1.1.10 For completeness, this Statement should be read in conjunction with the accompanying technical reports and plans, listed below:

Technical Reports

- Traffic and Transport Technical Note;
- Noise Assessment;
- Air Quality Assessment;
- Hydrology, Flood Risk and Drainage;
- Landscape and Visual Assessment; and
- Ecology
 - Preliminary ecological appraisal;
 - Bat activity report; and
 - Habitat regulation assessment

Plans

- Site location plan;
- Existing site plan;
- Proposed site plan – Pumping Operation;
- Proposed site plan – Well Testing; and
- Proposed Elevation - View from North West.

1.2 The Applicant

1.2.1 Angus Energy was founded in 2009 and is an independent onshore oil and gas development company, with a focus on advancing its portfolio of licensed UK assets. The company currently has interest in three other sites located in the South East of England including: Brockham Oil Field, Lidsey Oil Field and the PEDL143 'A24' Prospect. Angus Energy are an Oil & Gas Authority (OGA) approved UK Onshore Operator.

1.2.2 Angus Energy acquired a 25% interest in the Balcombe site in 2018 and is the current operator for operations at the site.

2 Background

- 2.1.1 The Balcombe field is located within exploration licence PEDL244, approximately 8km south east of Crawley near the village of Balcombe. The conventional oil accumulation lies on the downthrown side of the Borde Hill Fault, with dip closure present both to the east and the west at Upper Jurassic Level. The field is positioned in a prime central location of the Weald Basin, where buried rock intervals are at their thickest, and oil source rocks at their most mature.
- 2.1.2 The discovery well Balcombe-1 was first drilled in 1986 by Conoco, targeting the Great Oolite, Portland Sandstone and Kimmeridge limestones. Approximately 1863ft (569m) of Kimmeridge Clay was encountered in the well, including thick micritic limestone layers. Balcombe-2 and its associated sidetrack Balcombe-2Z completed drilling in September 2013 to a vertical depth of 2,200 ft TVD (670.5m), and horizontally through the Kimmeridge upper limestone to a length of some 1,714 ft (522.4m).
- 2.1.3 Following approval of planning application ref: WSCC/040/17/BA (10 January 2018), in September 2018 Angus carried out a 7 day well test on the Balcombe 2Z horizontal well. While on test, the well achieved a maximum metered flow rate of 1599.6 bbls/day (254 m³/day) with a water cut averaging 6.63%, thus proving the presence of light moveable oil in the Kimmeridge upper limestone and the possibility to achieve commercial production rates.
- 2.1.4 During the flow periods, where oil was being produced to surface, the well eventually died and returns went back to being almost 100% water. Following post-test analysis, Angus Energy believe that the produced water is not formation water but drilling fluid that has remained in the well. The intention of the proposed stage 1 operation is to remove this remaining fluid from the wellbore, after which oil may begin to be produced and the stage 2 Extended Well Test would commence.

3 Planning History

- 3.1.1** The existing hard standing was constructed in 1986 in connection with a planning permission to undertake an exploratory drilling exercise. An exploratory borehole was drilled by Conoco and is referred to as Balcombe 1. This has since been plugged with cement and abandoned. In 1987, planning permission was granted for the retention of the borehole site for forestry storage in connection to wider activities on the Balcombe Estate. The site continued to be used as forestry storage for the Balcombe Estate up until July 2013, when the Balcombe 2Z exploration borehole was drilled under a planning permission that was granted in 2010. Cuadrilla completed the drilling of the Balcombe 2Z borehole in September 2013 and no further activity occurred on site after drilling was completed. Planning permission was then granted in May 2014 to flow test the Balcombe 2Z borehole and undertake pressure monitoring, but this work was never undertaken, and the planning permission expired in May 2017.
- 3.1.2** As discussed previously, the most recent planning permission ref: WSCC/040/17/BA was approved on 10 January 2018.
- 3.1.3** The following table relates to all planning applications associated with the proposed site. This demonstrates that intermittently the land has been associated with the exploration for and appraisal of hydrocarbons for over thirty years.

Date	Reference	Description	Decision
January 2018	WSCC/040/17/BA	Temporary permission for exploration and appraisal comprising the flow testing and monitoring of the existing hydrocarbon lateral borehole along with site security fencing, the provision of an enclosed testing flare and site restoration	Granted
May 2014	WSCC/0015/14/BA	Temporary permission for exploration and appraisal comprising the flow testing and monitoring of the existing hydrocarbon lateral borehole along with site security fencing, the provision of an	Withdrawn

		enclosed testing flare and site restoration.	
July 2013	WSCC/063/13/BA	Amendment of condition 3 of WSCC/027/10/BA to vary the type of flare used during the testing process.	Withdrawn
July 2013	WSCC/061/13/BA	Amendment of condition 2 of WSCC/027/10/BA to allow additional time to complete the drilling and testing programme and restore the site.	Granted
January 2010	WSCC/027/10/BA	To upgrade existing stoned platform and drill an exploratory borehole for oil and gas exploration.	Granted
1987	BA/38/87	Retention of existing borehole site for forestry products storage and improvements to existing access.	Granted
1986	BA/10/86	Construction of hard standing in association with exploratory drilling exercise.	Granted

4 Site Setting and Description

- 4.1.1 The site is located at the Lower Stumble exploration site, situated off London Road (B2036) approximately 800m to the south of the village of Balcombe and approximately 8km south east of Crawley. Vehicular access to the site is provided via an existing track located off London Road.
- 4.1.2 The site extends to some 0.73 hectares (0.58 hectares for the above ground works, with the lateral borehole comprising the remaining 0.15 hectares), including the surface pad, and access road linking to London Road.
- 4.1.3 The site is situated in a predominantly rural area and is bounded by the B2036 to the west. An area of forestry is situated to the north and existing access is to the south and east. Beyond, is the London- Brighton railway line. The site is surrounded by woodland (Lower Stumble Wood and Lower Beanham Wood) both of which have been designated as ancient woodland.
- 4.1.4 The site comprises a crushed stone pad which accommodates the Balcombe 2Z borehole, a storage crate over the wellhead, some 1m³ IBC liquid storage tanks and a ground water monitoring borehole. To prevent unauthorised access to the pad, two-metre high security fencing currently surrounds the site on all sides.
- 4.1.5 There are no public rights of way effecting the proposed development with the closest public footpath approximately 0.5 kilometres northwest of the site.

Site Designations

- 4.1.6 The site is not allocated for any ecological, heritage, or any other specific designation in either the Joint Mineral Local Plan or the made Balcombe Parish Neighbourhood Plan. Within the Mid-Sussex Local Plan Policy Map the site is located within the 'High Weald AONB' and 'Protection and Enhancement of the Countryside'.
- 4.1.7 Having assessed the Environment Agency's Flood Risk Map, the development site is located within Flood Zone 1.

5 Pre-Application Meeting

5.1.1 A Pre-Application meeting was held on the 10th June 2019 between West Sussex County Council and representatives from Heaton and Angus Energy Ltd.

5.1.2 A Pre-Application Planning Advice letter was received on the 2nd July 2019 which set out the following recommendations.

Environmental Impact Assessment (EIA) Regulations

5.1.3 In terms of the EIA Regulations, the Council advised that the applicant submit a Screening Request to determine where the proposal is likely to have significant effects on the environment thus requiring an EIA. See section 6 of this Planning Statement for further information.

Other Matters

- An assessment should review the existing site and surrounds, including landscape character and the impact of the development on the landscape.
- Community engagement is particularly important for hydrocarbon applications, more so for the Lower Stumble Wood, Balcombe site, to assist and to elucidate the local community. It is recommended that some form of community engagement is carried out prior to the submission of any application.

6 Screening Opinion

6.1.1 On the 18th July 2019, Heatons submitted a request for an Environmental Impact Assessment Screening Opinion under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. West Sussex County Council responded to this request on 2nd August 2019 (Appendix 2) stating that *“in the opinion of the Mineral Planning Authority, the development would not require an Environmental Impact Assessment.”*

6.1.2 The following extracts from the Screening Opinion sets out the key issues to be considered in a planning application:

“The ‘key issues to consider’ are identified as the “scale of development, emissions to air, discharges to water, the risk of accident and the arrangements for transporting the fuel.” In this case, the development site is small in scale, as is the physical development and no further drilling is proposed, nor is hydraulic fracturing proposed. The site is well-screened, is brownfield land, and located between a road and the railway corridor, so although it is in the AONB, the potential for impact on the landscape designation is not considered significant. Emissions to air are controlled through the Environmental Permitting process, and the risk of accident control by the HSE. Should oil begin to flow, crude would require exporting from site. Although there would be some increase in vehicle movements on the local highways over the three-year period, it is not considered that this would result in significant environmental impact.

In approving the previous application, it was considered that the development would not result in significant impact on people or the environment. Given the similarities between this proposal and those previously approved, these conclusions are relevant when considering whether EIA is necessary, even when taking into account the increased period of time.

In this case, taking into account the temporary period over which the operations would take place, the small scale of physical development, and the controls in place through the planning and Environmental Permitting regulations, and through HSE, and taking into account the criteria in Schedule 3 of the EIA Regulations, it is considered that the proposal does not have the potential for significant environmental impact within the meaning of the EIA Regulations”.

7 Community Engagement

- 7.1.1** As part of Angus Energy's commitment to working with the communities in which it operates, the first Balcombe Community Liaison Group (CLG) was convened on the 28th August 2019. Present were four members of Angus Energy, members of the Balcombe Parish Council & Mid Sussex District Council, local police, and representatives from West Sussex County Council. The purpose of the meeting was to present Angus Energy's plans to the community before the submission of a planning application. As a result, feedback could be built into the application and into the operational strategy moving forward.
- 7.1.2** A review of the 2018 7-day well test was undertaken, and the technical results explained, as well as a description of the upcoming pumping operation and extended well test planned for the near future. Both positives and negatives from the previous operations were discussed, with particular reference to a few key issues. During the Autumn of 2018 there were concerns about inadequate signage to the site. It was agreed that this time there would be considerably more signs to the site, as well as a banksman responsible for ensuring HGVs and other vehicles were guided into the site. Angus have also taken the time to perform minor landscaping works around the track and entrance to the site to ensure vehicles can access the site safely and with minimal disruption.
- 7.1.3** Furthermore, Angus agreed to share monitoring reports with the community as operations progressed, and to arrange site visits and tours as required. A further CLG will be convened ~4 weeks after the planning application is submitted to allow time for the group to digest the submission. Subsequently, further meetings would be organised for every 2-3 months during operations, or as required, with the group submitting a 'Q & A' sheet in advance.
- 7.1.4** There were also concerns raised about noise, and it was agreed that Angus would make every effort to keep noise to a minimum including the installation of acoustic barriers where necessary. Angus Energy intends to carry out these operations with the utmost level of professionalism and complete transparency across the site. The community will be informed at all stages and updated as the operations progress.

7.1.5 In order to discharge Condition 21 of planning application ref: WSCC/040/17/BA regarding the establishment of a local liaison group, a Community Liaison Group (CLG) Terms of Reference was submitted and approved by the Council. This document has been updated and is attached at Appendix 3 to this statement.

8 Development Proposals

8.1 Introduction

- 8.1.1** The proposed work on the Balcombe 2Z well will take place in a staged approach (see 'Decision Tree' attached at Appendix 1), with planning and regulatory approvals covering the various directions the operation could take depending on results at each stage.
- 8.1.2** The initial stage 1 pumping operation is anticipated to take up to 4 weeks and will use a minimum amount of kit (kit list laid out in the decision tree - Appendix 1). Assuming this is successful Angus would then move on to the EWT (stage 2). Initially, Angus would be looking to carry out an EWT for approximately 3 years in length.
- 8.1.3** The main reasoning for the extended period of 3 years compared to the shorter period of the last application is to ensure that Angus Energy can explore all the potential options set out in the decision tree attached at Appendix 1 and the 3 years is a maximum case scenario.
- 8.1.4** In terms of the kit and equipment for the proposed operations, this will largely be the same set of kit as approved under planning application ref: WSCC/040/17/BA.

8.2 Proposed Approach

- 8.2.1** The testing approach for the well in stage 1 will involve a simplified set of equipment since it is envisaged that when oil is seen the operation will cease and stage 2 would begin. The equipment envisaged would include a linear rod pump (LRP) or equivalent (pump jack), a surge tank, a storage tank for brine and a slops tank for any contaminated brine. There would also be the same pressurised tank on site for fluid export & vapour recovery as per EA regulations. All this equipment would be located in a small bunded area adjacent to the wellhead (note that the bund will comply with best industry practice guidelines i.e. CIRIA C736). The fluids produced from the well would pass through a control valve to the surge tank, which is there to control variations in flow rate. Subsequently, the process flow path would then pass to the brine tank. Any contaminated brine containing traces of oil would pass to the contaminated fluid tank. It is anticipated that the operation would take around 7 days with rig up and rig down time either side of this. As a maximum case scenario, it is

expected that in total stage 1 could take 4 weeks. Ancillary equipment would include a generator and a small welfare unit.

8.2.2 Angus intends to carry out the stage 1 operation with the minimum equipment in order to minimise environmental impacts and reduce any disruption to the local community. This is ultimately just a continuation of the previous operation carried out in Autumn 2018.

8.2.3 Once the well has been cleaned up and dry oil begins to be seen the stage 1 operation will cease and the well suspended as per its current state before stage 2 begins. During both operational stages all fluids will be trucked offsite to a licensed and approved facility.

8.2.4 Assuming the success of stage 1, the remaining well test equipment will be mobilised to site for stage 2. The Extended Well Test would then begin whereby the well would be tested to ascertain whether commercial hydrocarbon rates can be achieved. The test will involve several flowing and shut-in periods to enable full analysis of the reservoir.

8.2.5 It is intended that during the Extended Well Test the only equipment on site is the well test spread and storage tanks. However, should contingency options be required to aid the flow of the well, a Coiled Tubing unit would be mobilised to site as per the decision tree (Appendix 1). This is exactly the same set of equipment that was used during the Autumn 2018 work. It should be noted that the 'maximum case scenario' of required equipment is the same as the equipment used in the Autumn of 2018.

8.3 Sequence of Operations

8.3.1 The well is currently suspended following the demobilisation of equipment after the Autumn 2018 well test, and the pressures on the well are monitored. There is currently no tubing head or annulus pressure. For stage 1, following the rig up of equipment and observation of zero pressure on the well, the well would be opened up and the sucker rod pump and rods would be run to a depth of ~2278 ft MD (694m) (where there is an XN landing nipple), which is around 357 ft (109m) measured depth from the perforations/top of the uncemented slotted liner. The linear rod pump or pump jack/nodding donkey (depending on availability) would be mounted on the existing valves installed on the well. The pumping would commence and continue until brine

was reduced and oil was seen in the borehole; stage 1 operations would cease at that point. On completion of the operation the produced fluids would be disposed at a licensed facility and preparation for stage 2 would begin.

8.3.2 Note that acoustic barriers will be installed if necessary, around the operational area as a precaution to minimise any noise during the work. The work proposed will in general create minimal noise, with a generator being the most significant point source noise emission.

8.3.3 Following the end of stage 1, the well would be shut in at surface with the pump jack remaining in place. The remainder of the well test equipment required for stage 2 would be mobilised and rigged up on site. Following safety checks the stage 2 Extended Well Test would commence with alternating flowing and shut-in periods

8.4 Proposed Equipment Details

8.4.1 The intention is to minimise our plant and equipment footprint. The reasoning for this is to keep a simple on site set up and to minimise disruption to the local community from HGV movements etc. Indicative equipment details are outlined below. An indicative site layout plan is also provided as part of this planning application.

Stage 1 - Pumping remaining drill fluids

8.4.2 Note that there is no new equipment proposed compared to what was used in the Autumn 2018 well test. In fact, it is anticipated that there will be considerably less kit on site given the hope not to have to mobilise the Coiled Tubing unit.

8.4.3 The following equipment would be on site for the stage 1 pumping operation. This is a minimal well test package and tanks. All equipment will be banded as per CIRIA guidelines.

- SurgeTank – Low pressure separator;
- Associated Pipe Work & Manifolding;
- Oil & waste storage tanks;
- LRP–Linear Rod Pump; and
- Vapour Recovery Tank (as per EA Specifications).

Stage 2–Extended Well Test

8.4.4 The following equipment would be on site for the extended well test operation. This is a full well test package and tanks. Extra equipment for contingency options (1), (2) & (3) is also listed.

- Test Separator Unit, MAWP 1440 psig;
- On board data acquisition and reporting system;
- Associated Pipework & Manifolding Package;
- Surface ESD system;
- Choke Manifold;
- Surge Tank - Second stage separator;
- Oil & waste storage tanks;
- LRP –Linear Rod Pump; and
- Vapour Recovery Tank (as per EA specifications).

Contingency (1) –Nitrogen Lift

8.4.5 If Nitrogen lift is required, the kit on top of the above list will be as follows. Note the use of a Coiled Tubing (CT) unit is exactly the same as was used in the Autumn 2018 test.

- Coiled tubing unit incl. injector head and reel;
- Nitrogen Convertor; and
- 2 - 4 Nitrogen tanks.

8.4.6 If Nitrogen is not to be used via Coiled Tubing, the nitrogen will be discharged down the well via lines from commercially available 'racks'.

Contingency (2) - Acid Wash with CT

8.4.7 If an acid wash is required, this will be done with the CT equipment as above, with the following additions:

- HCl Acid Truck (on site only for the day).

Contingency (3) –Inflatable Bridge Plug with CT

- If a bridge plug is required to be set this will be run on the CT equipment as per Contingency (1).

8.5 Bund Design & Construction

8.5.1 For the purposes of the operation, a temporary bund will be constructed in which all equipment will be spotted. The design and materials used for the bund will be the same as constructed for the original well test in Autumn 2018. This consists of an underlying felt liner overlain by an impermeable HDPE (High Density Polyethylene) plastic layer with a second felt liner on the top. The bund walls will be constructed using railway sleepers and timber bog mats will be laid within the bunded area to provide a stable platform on which to spot equipment and to maintain integrity of the barrier during operational conditions. The area and height of the bund will be built to comply with the CIRIA 736 (2014) guidance which requires a bund to be of 110% of the volume of the largest tank or 25% of the total capacity of all tanks whichever is the greater and to take into account a 1 in 100 year rainfall event. Indicative design calculations to demonstrate that the bund will be appropriately sized are set out below. Should the extended well test phase be successful, and if required by the Environment Agency, a permanent liner would be installed under the site during the EWT phase.

The Pollution Inventory Plan provides greater detail into the methodology and certification required to construct a bund.

Volume Calculations			Bund Volume Requirement		
Bund Size	30m x 20m x 0.45m	270m ³	110% of largest volume storage tank	80m ³ x 1.1	88m ³
Bog mats	15 x 20m x 0.1	30m ³	25% of total storage volume	209m ³ x 0.25	52.25m ³
Bund volume	270m ³ - 30m ³	240m ³	Greater volume of calculations above		88m ³
Tanks on site			Storage Requirement		
Storage tanks	Tank 1	80m ³			
	Tank 2	80m ³			
	Tank 3 (Vapour Recovery)	19m ³			
Surge tank		20m ³			
Fluid in pipework & equipment		10m ³			
	Total	209m³	Storage Requirement 88m³		

8.6 Management of Waste & HSE

8.6.1 During both stages of the operation, fluids will be pumped from the well by the

installed sucker rod pump. As stated, during stage 1 the purpose of the operation is to remove the remaining brine from the hole to allow dry oil to flow. As a result, the main fluid produced will be brine and this will be stored in the on-site tanks. During stage 2, the main fluid produced would be oil which would also be stored in the on-site tanks. During all operations tanks will be emptied by an approved waste removal company and trucked to a similarly approved facility. At the end of the operation the tanks will then be professionally cleaned and returned to the contractor. The very same pressurised tank that was used during the initial Autumn 2018 well test will also be installed for vapour recovery in compliance with our obligations as outlined in the wellsite EPR permit under The Environmental Permitting (England & Wales) Regulations 2016.

8.6.2 Angus Energy operates an integrated health, safety and environmental management system which will be in place throughout the operational activity. Implementation is achieved through documentation, competency of staff and contractors, using best available techniques and an active programme of monitoring and review.

8.6.3 Should any emergency situation occur, the well would be instantly shut in at the wellhead. The adoption of normal emergency procedures applicable to oilfield operations ensure compliance with the UK onshore environmental and safety control regime. Site specific emergency response procedures are in place in consultation with the emergency services and tested prior to the commencement of any work.

8.7 Monitoring

8.7.1 During the proposed works there will be a variety of monitoring techniques employed for both stages of operations.

8.8 Working Hours

8.8.1 The hours of operation and vehicle movements will remain the same as that approved under planning application ref: WSCC/040/17/BA.

8.8.2 Mobilisation and equipment set up, demobilisation and restoration and the movement of all Heavy Goods Vehicles (HGVs) to and from the site will be undertaken during standard working hours i.e. 07:30 to 18:30 Monday to Friday; and 08:00 to 13:00 on Saturdays. The stage 1 and stage 2 operations will be undertaken over 24 hours.

8.9 Stage 3: Demobilisation and Site Restoration

8.9.1 Stage 3 involves removing all of the plant and equipment from the site and restoring the land back to its former use in accordance with best practice and the requirements of the extant environmental permit(s). This will happen at the end of the Extended Well Test phase.

8.10 Potential Future Production Stage

8.10.1 Should the borehole flow testing and pressure monitoring works reveal that there are hydrocarbon reserves that could viably be extracted in the future, then after stage 2 has been completed the borehole would be temporarily suspended, whilst a new planning application was prepared and submitted for the production stage. During this period all plant and machinery would be removed from the site and the land would effectively lie dormant pending the outcome of the planning application.

9 Planning Policy

9.1 Introduction

9.1.1 In accordance with s38 (6) of the Compulsory Purchase Order 2004 planning applications must be determined in accordance with the Statutory Development Plan unless material considerations indicate otherwise.

9.1.2 The Development Plan currently comprises:

- West Sussex Joint Minerals Local Plan (July 2018);
- Mid Sussex District Plan (March 2018); and
- Balcombe Neighbourhood Plan (2016)

9.2 Development Plan

West Sussex Joint Minerals Local Plan (JMLP) (July 2018)

9.2.1 The West Sussex Joint Minerals Local Plan (JMLP) covers West Sussex County Council and South Downs National Park Authority, adopted by both authorities in July 2018. The West Sussex Joint Minerals Local Plan (2018) replaces the West Sussex Minerals Local Plan (2003). The strategy covers the period until 2033.

9.2.2 Policies of relevance to this planning application include.

9.2.3 **Policy M7a** (Hydrocarbon development *not involving hydraulic fracturing*) states that proposals for exploration and appraisal for oil and gas, not involving hydraulic fracturing including extensions to existing sites will be permitted provided that:

- I. With regard to development proposals deemed to be major, the site is located outside the South Downs National Park, High Weald AONB or Chichester Harbour AONB unless it has been demonstrated that there are exceptional circumstances and that it is in the public interest, and in accordance with Policy M13;
- II. the site selected represents an acceptable environmental option in comparison to other deliverable alternative sites from which the target reservoir can be accessed, taking into account impacts from on-site activities

and off-site activities including HGV movements;

- III. any unacceptable impacts including (but not limited to) noise, dust, visual intrusion, transport, and lighting, on both the natural, historic and built environment and local community, including air quality and the water environment, can be minimised, and/or mitigated, to an acceptable level;
- IV. restoration and aftercare of the site to a high-quality standard would take place in accordance with Policy M24 whether or not oil or gas is found; and
- V. No unacceptable impacts would arise from the on-site storage or treatment of hazardous substances and/or contaminated fluids above or below ground.

9.2.4 Part c of Policy M7 is in regard to 'Activity beneath or proximate to designated areas'. It states:

"Proposals for exploration, appraisal and production of oil and gas, not involving hydraulic fracturing, will be permitted underneath or in close proximity to designated areas, assets and habitats, which demonstrate that special care will be taken to avoid harming these areas and the special qualities of the South Downs National Park and/or setting and value of the Chichester Harbour AONB, High Weald AONB and other designated areas, assets and habitats".

9.2.5 **Policy M12** (Character) states that proposals for mineral development will be permitted provided that they would not have an unacceptable impact on the character distinctiveness, sense of place of the different areas of the County, the special qualities of the South Downs National Park, and the setting and character of the Chichester Harbour and High Weald AONB and the setting of protected landscapes.

9.2.6 **Policy M13** (Protected Landscape) states that: (a) Proposals for mineral development within protected landscapes (the South Downs National Park, the Chichester Harbour Area of Outstanding Natural Beauty, and the High Weald Area of Outstanding Natural Beauty) will not be permitted unless:

- the site is allocated for that purpose in the adopted plan; or
- the proposal is for a small-scale development to meet local needs that can be accommodated without undermining the objectives of the designation; or

- the proposal is for major mineral development that accords with part (c) of this Policy.

9.2.7 Part (c) of Policy M13 sets out that proposals for major mineral development within protected landscapes will not be permitted unless there are exceptional circumstances and where it is in the public interest as informed by an assessment of:

- I. the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- II. the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for the mineral in some other way;
- III. and any potential detrimental impact on the environment, landscape, and recreational opportunities, and the extent to which identified impacts can be satisfactorily mitigated.

9.2.8 The development management' policies of relevance to the proposal are as follows, which are considered in more detail in section 10 of this statement:

- Policy M15 – Air and Soil;
- Policy M16 - Water resources;
- Policy M17 – Biodiversity and Geodiversity;
- Policy M18 - Public Health and Amenity;
- Policy M19 - Flood Risk Management;
- Policy M20 – Transport;
- Policy M22 – Cumulative Impact;
- Policy M23 - Design and Operation of Minerals Developments;
- Policy M24 – Restoration and Aftercare; and
- Policy M25 – Community Engagement.

Mid Sussex District Plan (MSDP) (2014-2031)

9.2.9 The MSDP was adopted in March 2018 and covers the period between 2014-2031. The Plan replaces the Mid Sussex Plan 2004. The following policies are of relevance for the

determination of the proposal and are considered in greater detail within section 10 of this statement:

- Policy DP12 – Protection and Enhancement of Countryside;
- Policy DP14 – Sustainable Rural Development and the Rural Economy;
- Policy DP16 – High Weald Area of Outstanding Natural Beauty;
- Policy DP21 – Transport;
- Policy DP26 – Character and Design;
- Policy DP29 – Noise, Air and Light Pollution;
- Policy DP37 – Trees, Woodland and Hedgerows;
- Policy DP38 – Biodiversity;
- Policy DP39 – Sustainable Design and Construction;
- Policy DP41 – Flood Risk and Drainage; and
- Policy DP42 – Water Infrastructure and the Water Environment.

Balcombe Neighbourhood Plan (2016)

9.2.10 The Balcombe Neighbourhood Plan was approved ‘made’ in September 2019 and forms part of the Development Plan.

9.2.11 Policy 3 (Design): seeks to avoid any significant detrimental effect on the landscape and natural beauty of the High Weald AONB.

9.3 Other Material Considerations

National Planning Policy Framework (February 2019)

9.3.1 The National Planning Policy Framework (NPPF) (February 2019 – last updated on 19 June 2019 with the removal of remove paragraph 209a) forms a material consideration in determining planning applications.

9.3.2 Section 2 (Achieving sustainable development) states that the purpose of the planning system is to contribute to the achievement of sustainable development. To achieve sustainable development means that the planning system has three overarching objectives: an economic; a social and an environmental.

9.3.3 Paragraph 11 sets out that, so sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development. Plan and decisions should apply a presumption in favour of sustainable development.

For decision taking this means:

- Approving development proposals that accord with an up to date development plan without delay, or;
- Where there are no relevant development plan policies, or the policies which are most important for determining the application are out of date.

9.3.4 Section 4 in regard to ‘decision making’ sets out in paragraph 38 that decision-makers at every level should seek to approve applications for sustainable development where possible.

9.3.5 Section 6 is in regard to ‘building a strong, competitive economy’ whereby paragraph 80 states “planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development”.

9.3.6 Section 14 is in regard to ‘meeting the challenge of climate change, flooding and coastal change’. Paragraph 148 states that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change.

9.3.7 Section 15 is in regard to ‘conserving and enhancing the natural environment’. Paragraph 170 sets out that planning policies and decisions should contribute to and enhance the natural and local environment. Paragraph 172 states that ‘great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- the need for development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;

- the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

9.3.8 Paragraph 203 sets out that it is essential that there is a sufficient supply of minerals, highlighting that minerals can only be worked where they are found, and that best use needs to be made of them to secure their long-term conservation.

9.3.9 **Section 17** is in regard to 'facilitating the sustainable use of minerals'. Paragraph 203 sets out that it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.

9.3.10 Paragraph 205 states that when determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy. In considering proposals for mineral extraction, minerals planning authorities should:

- Ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality; and
- Provide for restoration and aftercare at the earliest opportunity, to be carried out to high environmental standards, through the application of appropriate conditions Bonds or other financial grants guaranteed to underpin planning conditions should only be sought in exceptional circumstances.

9.3.11 Paragraph 209-211 sets out policies in regard to Oil, gas and coal exploration and extraction. Paragraph 209 b states that minerals planning authorities should, when planning for on-shore oil and gas development, clearly distinguish between, and plan positively for, the three phrases of development (exploration, appraisal and production), whilst ensuring appropriate monitoring and site restoration is provided for.

9.3.12 In relation to paragraph 209, on the 6th of March 2019, Mr Justice Dove handed down

his judgment in the case of *Stephenson vs SoS MHCLG* [2019] EWHC 519 (Admin). In accordance with the terms of the Court Order, paragraph 209(a) of the National Planning Policy Framework has been quashed.

9.3.13 Paragraph 209a read as follows:

“Minerals planning authorities should: recognise the benefits of on-shore oil and gas development, including unconventional hydrocarbons, for the security of energy supplies and supporting the transition to a low-carbon economy; and put in place policies to facilitate their exploration and extraction.”

Written Ministerial Statements

9.3.14 Government Ministers and small number of other Members of the two Houses can make a written statement to one or both Houses. This Statement is a material consideration in plan-making and decision-taking, alongside relevant policies of the existing National Planning Policy Framework (2019), in particular those on mineral planning (including conventional and unconventional hydrocarbons).

9.3.15 There are two Written Ministerial Statements that are key considerations in this planning application:

- HCWS202 - 16th September 2015 - (Amber Rudd) (Secretary of State for Energy and Climate Change); and
- HCWS1586 – 23rd May 2019 - (James Brokenshire) (Secretary of State for Ministry of Housing, Communities and Local Government).

9.3.16 HCWS202 – A written ministerial statement was issued on 16th September 2015, which set out that; *“the Government’s view is that there is a national need to explore and develop our shale gas and oil resources in a safe, sustainable and timely way, and the steps it is taking to support this. The statement to Parliament should be taken into account in planning decisions and plan-making”*.

9.3.17 HCWS1586 – A written ministerial statement was issued on 23rd May 2019 which stressed that, despite paragraph 209a being removed, the remainder of the NPPF policies “and, in particular, Chapter 17 on ‘Facilitating the Sustainable Use of Minerals’ remain unchanged and extant”.

9.3.18 The ministerial statement went on to state that “the Written Ministerial Statements of 16th September 2015 on ‘Shale Gas and Oil Policy’ and 17th May 2018 on ‘Planning and Energy Policy’ also remain unchanged and extant.

Planning Practice Guidance (PPG)

9.3.19 The Planning Practice Guidance is a material consideration in the determination of planning applications.

9.3.20 The PPG for Minerals sets out the Government’s approach for mineral extraction in the decision making and planning application process.

9.3.21 Paragraph 12 sets out the relationship between planning and other regulatory regimes noting that “the planning system controls development and the use of land in the public interest” including ensuring development is appropriate for its location and an acceptable use of land.

9.3.22 Crucially, it notes that *“the focus of the planning system should be on whether the development itself is an acceptable use of the land and the impacts of those uses, rather than any control processes, health and safety issues or emissions themselves where these are subject to approval under regimes. Mineral planning authorities should assume that these non-planning regimes will operate effectively.”*

9.3.23 Paragraph 13 sets out the environmental issues’ minerals planning authorities should address including noise, air quality, lighting, visual impact, traffic, risk of contamination to land, geological structure, flood risk, impacts on protected landscapes, surface and in some cases ground water issues, and water abstraction.

9.3.24 Paragraph 17 notes that the cumulative impact of mineral development can be a material consideration in determining planning applications.

9.3.25 Paragraphs 91 to 128 relate specifically to hydrocarbon extraction. Paragraph 93 notes that planning permission is required for each phase of hydrocarbon extraction, while paragraph 94 notes that applications can cover more than one phase and paragraph 118 notes that both vertical and horizontal drilling can be included in one application.

9.3.26 Paragraph 95 explains that the exploratory phase of hydrocarbon extraction:

“seeks to acquire geological data to establish whether hydrocarbons are present. It may involve seismic surveys, exploratory drilling and, in the case of shale gas, hydraulic

fracturing.” Note that no hydraulic fracturing is proposed in this application

9.3.27 Paragraph 100 explains that the appraisal phase

“...can take several forms including additional seismic work, longer-term flow tests, or the drilling of further wells. This may involve additional drilling at another site away from the exploration site or additional wells at the original exploration site...Much will depend on the size and complexity of the hydrocarbon reservoir involved.

9.3.28 Paragraph 124 states that Mineral Planning Authorities should take account of Government energy policy ‘which makes it clear that energy supplies should come from a variety of sources’ including onshore oil and gas. It also refers to the Annual Energy Statement 2013 which notes, among other things, that the UK needs to make the transition to low carbon in order to meet legally-binding carbon emission reduction targets (paragraph 1.2) and that levels of production from the UK continental shelf are declining so the UK will become increasingly reliant on imported energy (paragraph 1.3). The three stated priorities in delivering the UK’s energy policies in the near term are:

- “helping households and businesses take control of their energy bills and keep their costs down;
- unlocking investment in the UK’s energy infrastructure that will support economic growth; and
- playing a leading role in efforts to secure international action to reduce greenhouse gas emissions and tackle climate change.” (paragraph 1.6).

9.3.29 Paragraph 3.69 states:

“With oil and gas remaining key elements of the energy system for years to come (especially for transport and heating), the Government is committed to maximising indigenous resources, onshore and offshore, where it is cost effective and in line with safety and environmental regulations to help ensure security of supply.”

9.3.30 PPG: Air Quality notes that when deciding whether air quality is relevant to a planning application, considerations could include whether the development would (in summary): significantly affect traffic (through congestion, volumes, speed, or traffic composition on local roads); introducing new point sources of air pollution; give rise

to potentially unacceptable impact (such as dust) during construction; or affect biodiversity (paragraph 5).

- 9.3.31** PPG: Noise notes that noise can override other planning concerns (paragraph 2), and that the acoustic environment should be taken account of in making decisions, including consideration of (in summary) whether a significant adverse effect is likely to occur; whether an adverse effect is likely to occur; and whether a good standard of amenity can be achieved (paragraph 3).
- 9.3.32** PPG: Climate Change notes that addressing climate change is one of the core land use planning principles the NPPF expects to underpin decision taking.
- 9.3.33** PPG: Natural Environment notes that planning decisions should be based on up-to-date information about the natural environment and other characteristics of the area, and local planning authorities should have regard to management plans for AONBs (paragraph 4). Paragraph 5 notes:

“Planning permission should be refused for major development in a National Park, the Broads or an Area of Outstanding Natural Beauty except in exceptional circumstances and where it can be demonstrated to be in the public interest. Whether a proposed development in these designated areas should be treated as a major development, to which the policy in paragraph 116 of the Framework applies, will be a matter for the relevant decision taker, taking into account the proposal in question and the local context. The Framework is clear that great weight should be given to conserving landscape and scenic beauty in these designated areas irrespective of whether the policy in paragraph 116 is applicable.”

9.4 Planning Policy Overview

- 9.4.1** The proposed development is located on a site with the pre-existing 2z borehole. The use of this site for hydrocarbon-related development for over 30 years confirms that it is an appropriate site for minerals-related development. The alternative to stimulating the existing 2z borehole to test the target formation would be to either drill a new borehole at the Lower Stumble site or find an alternative site elsewhere within the PEDL 244 licence area. Therefore, using the existing 2z borehole which is already protected by an impermeable membrane represents the most sustainable option for testing the hydrocarbon reserves in the target formation.

- 9.4.2 As the proposed development involves minerals-related operations and is not predicted to generate any significant adverse environmental effects, it represents an appropriate type of development in a countryside area of development restraint.
- 9.4.3 Stage 3 of the proposed development involves restoring the site back to forestry storage, which represents an appropriate use for the land not dissimilar to the existing well pad condition used for hydrocarbon extension. Angus Energy is committed to implementing stage 3 if the stage 1 works fail and the same applies if the EWT works are unsuccessful. If the testing works reveal that it would be viable to extract the hydrocarbon reserves then a new planning permission would be required, which would be subject to its own conditions requiring the site to be restored following completion of the production stage. Subsequently, there is no conflict with Policy M24 of the JMLP.
- 9.4.4 Policy M7a of the JMLP states that planning permission should be refused for major developments in AONBs except in exceptional circumstances and where it can be demonstrated they are in the public interest. Furthermore, consideration of such applications should include an assessment of 1) the need for the development; 2) the cost of, and scope for, developing elsewhere outside the designated area; and 3) any detrimental effect on the environment.
- 9.4.5 In response to point 1), the proposed development is needed to understand whether there are viable hydrocarbon reserves in place that could be extracted in the future. If this is the case, the site has the potential to make a positive contribution to the Government's energy supply and energy security objectives.
- 9.4.6 With regards to point 2), minerals-related developments can only be undertaken where there are known reserves. The site has been associated with hydrocarbon exploration and appraisal for over 30 years so represents the most appropriate site in West Sussex to accommodate the type of development that is being proposed.
- 9.4.7 In relation to point 3), the technical appendices that accompany this planning statement have concluded that as a maximum case the proposed development has the potential to generate minor adverse effects that will be temporary in nature and reversible.
- 9.4.8 Based on the evidence presented above, it can be concluded that the proposed

operations represent an acceptable type of development for the site and therefore does not conflict with Policy M7a of the JMLP or section 15 of the NPPF.

9.4.9 Notwithstanding the above conclusion, having regards to the location, nature, scale and extent of the proposed development and the assessment of planning policy, the subsequent section of this report deals with the following key considerations:

- Need for the development;
- Highway Capacity and road safety;
- Potential Impacts on amenity and public health - noise;
- Potential Impacts on amenity and public health – air quality;
- Potential impacts on the water environment;
- Potential impacts on landscape;
- Potential impacts on ecology.

10 Key Considerations

10.1 Need for the Development

Introduction and Policy Context

- 10.1.1 Need for the development is an important consideration for the proposed development. Having regards to the national and local planning policies it is deemed that need to explore/appraisal remains suitable for the following reasons:
- 10.1.2 Despite paragraph 209a being removed, the remainder of the NPPF policies and, in particular, Chapter 17 on 'Facilitating the Sustainable Use of Minerals' remain unchanged and extant.
- 10.1.3 Specific policy on the planning considerations associated with hydrocarbon development is set out at paragraphs 203-205 and the remainder of 209 of the National Planning Policy Framework. In particular, paragraph 204(a) of the National Planning Policy Framework states that planning policies should "provide for the extraction of mineral resources of local and national importance" with paragraph 205 stating that "[w]hen determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy".
- 10.1.4 Paragraph 203 sets that it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods the country needs. As mentioned within paragraph 203 minerals are a finite natural resource and can only be worked where they are found.
- 10.1.5 Paragraph 144 requires that in determining planning applications, local planning authorities "give great weight to the benefits of mineral extraction, including to the economy", although this must be balanced against the weight given to environmental impacts of a development.
- 10.1.6 Paragraph 124 of PPG: Minerals provides a clear steer that nationally, energy should come from a variety of sources, including oil and gas, giving the following response to the hypothetical question:

"Do mineral planning authorities need to assess demand for, or consider alternatives to oil and gas resources when determining planning applications?"

Mineral planning authorities should take account of Government energy policy, which makes it clear that energy supplies should come from a variety of sources. This includes onshore oil and gas, as set out in the Government's Annual Energy Statement published in October 2013."

- 10.1.7** The Government's most recent Annual Energy Strategy (2014) ("Energy Strategy") confirms that the production of gas and oil from the UK's own reserves has been declining since 1999, and since 2004 the UK has been a net importer of energy. This trend threatens the UK's energy security and one method of improving the situation is by encouraging the safe and sustainable exploration of indigenous onshore viable gas and oil reserves to boost domestic supplies.
- 10.1.8** The Energy Strategy also highlights that the UK oil and gas industry makes a substantial contribution to the UK's economy by supporting around 450,000 jobs throughout the wider economy and supplying the equivalent of more than half of the UK's oil and gas.
- 10.1.9** The proposed development has the potential to support the objectives of boosting indigenous oil and gas reserves and supporting the wider economy, as it will help to determine whether the existing exploration Well 2z borehole contains viable hydrocarbon reserves that could be extracted in the future. If this is proven not to be the case, in accordance with national and local planning policy the borehole will be plugged with cement and the site restored back to its former use as forestry storage.
- 10.1.10** In terms of the Development Plan, Policy M7a of the JMLP supports proposals for oil and gas exploration and appraisal not involving hydraulic fracturing subject to certain criteria, which includes; unacceptable impacts can be minimised; restoration would be to a high quality; and where the site is within the AONB, it accords with Policy M13. These considerations are considered in detail with regards technical and environmental considerations in the remainder of section 10 of this statement. In summary, the detailed technical reports conclude that as a maximum case the proposed development has the potential to generate minor adverse effects that will be temporary in nature and reversible.
- 10.1.11** Criterion (a)(ii) of Policy M7a relates to consideration of alternative sites, requiring that the site represents an acceptable environmental option in comparison to other deliverable alternative sites, deliverable location from which the target reservoir can be reached. For oil and gas, the options are limited to those that can 'tap' into the

identified reserve.

10.1.12 As discussed in section 9 of this statement, the site has been associated with hydrocarbon exploration and appraisal for over 30 years so represents the most appropriate site in West Sussex to accommodate the type of development that is being proposed. The application site is within PEDL 244, so that is the ‘search area’ for the purposes of this application. By using this site, the operator can make use of existing, site-specific geological data, and utilise the borehole drilled in 2013 and the associated infrastructure on site, including the membrane and access road.

10.1.13 In terms of the need for the 3 year period for the EWT, the main reasoning for the extended period compared to the shorter period of the last application is to ensure that Angus Energy can explore all the potential options set out in the decision tree attached at Appendix 1 and the 3 years is a maximum case scenario.

10.1.14 Based on the above, it is concluded that there is a need for continued exploration and appraisal at the site to establish whether there are hydrocarbon resources present which can be utilised. The need for development is supported by the NPPF, PPG and policy M7a of the JMLP.

10.2 Highways Capacity and Road Safety

Policy Context and Consideration of Previous Planning Application

10.2.1 With regards to transport, Policy M20 of the JMLP sets out planning policy regarding highway capacity and road safety.

10.2.2 Policy M20 part c criteria (ii) sets out that where the need for road transport is needed: “vehicle movements associated with the development will not have an unacceptable impact on the capacity of the highway network”. It should be noted that, West Sussex County Council Highways did not raise any objections for the previous scheme (ref: WSCC/040/17/BA), subject to a condition requiring a Transport Management Plan. Within the response it was considered that increase in vehicle movements is not sufficient to materially impact on the operation of the highway network safety.

10.2.3 Vehicle movements as part of this application are largely the same as the previous application and therefore, will not materially impact on the capacity or safety of the highway network. In terms of phase 1 vehicle movements, these are anticipated to be

less than that approved under planning application ref: WSCC/040/17/BA as they will not include the full testing kit, only a minimal spread until the phase 1 operations are complete. However, as a maximum case scenario, the movements have been assessed in the accompanying Transport Technical Note (discussed below) as the same as approved under the previous application.

- 10.2.4** After Phase 1 is complete the remainder of the testing kit will be brought on site to start Phase 2. These movements will be exactly the same as the work approved under the previous application (but again will in fact be less as half the kit is already on site).
- 10.2.5** Once Phase 2 is underway, movements will be minimal and limited to tankers hopefully exporting produced crude (1-2 tankers a day depending on flow rates).
- 10.2.6** Part c, criteria (iii) of Policy M20 seeks to ensure there is safe and adequate means of access to the highway network and vehicle movements associated with the development will not have an unacceptable impact on the safety of road users. The access of the site will remain the same as the previous approval, off London Road to the east. As part of the statutory consultee process of the previous application highways officers noted that the site access was adequate and that development would result in a limited increase over existing HGV traffic, therefore unlikely to have a material impact on the operation of the highway. Therefore, it was considered that the proposed development adheres to the safety of access and highways safety mentioned in policy M20.
- 10.2.7** As set out in the Community Engagement section of this statement, during the Autumn of 2018 there were concerns about inadequate signage to the site. It was agreed that this time there would be considerably more signs to the site, as well as a banksman responsible for ensuring HGVs and other vehicles were guided into the site. Angus have also taken the time to perform minor landscaping works around the track and entrance to the site to ensure vehicles can access the site safely and with minimal disruption.

Technical Report – Traffic and Transport Summary

- 10.2.8** A technical note was produced by RSK consultants Ltd – dated 16th August 2019, which sets out the effects that the proposed development is likely to have on traffic flows within the local area. A summary of the report is as follows:

- 10.2.9** This Technical Report provides a summary of the likely increase in traffic flows associated with the proposed development. Utilising data provided by Angus it is considered that the proposed operations will have a negligible effect on the local road network and no greater than that previously approved for flow testing operations.
- 10.2.10** The local highway network has sufficient capacity to accommodate the level of temporary traffic during the operational period.
- 10.2.11** The proposed mitigation measures, comprising the implementation of a Traffic Management Plan (Appendix 1 to the Technical Report), should be sufficient to overcome any concerns raised over increased HGV and non-HGV movements generated during the proposed operations.
- 10.2.12** On the basis of the findings of the Technical Report, the proposed development does not conflict with the relevant policies in the development plan or those policy documents that constitute material planning considerations.

10.3 Potential Impact on Amenity - Noise

Development Plan Context and Consideration of Previous Planning Application

- 10.3.1** Policy M18 (Public Health and Amenity) of the JMLP states that proposals for minerals development will be permitted provided that lighting, noise, dust, odours, vibration and other emissions, including those arising from traffic, are controlled to the extent that there will be no unacceptable impact on public health and amenity.
- 10.3.2** With regards to noise pollution, policy DP29 of the MSDP states that development will only be permitted where:
- It is designed, located and controlled to minimise the impact of noise on health and quality of life, neighbouring properties and the surrounding area; and
 - If it is likely to generate significant levels of noise it incorporates appropriate noise attenuation measures.
- 10.3.3** In terms of planning application ref: WSCC/040/17/BA with regards noise, the Council considered that there is a potential for the flare and plant on site to result in noise disturbance. However, it is considered that this can be adequately controlled by conditions requiring monitoring, and remediation if levels are exceeded.

Technical Report – Noise Management Plan Summary

- 10.3.4** RSK Environmental Ltd were commissioned to undertake a Noise Assessment of the potential noise impacts associated with the proposed development. A summary of the report is as follows:
- 10.3.5** The first assessment undertaken by RSK Environment Ltd (Doc ref: 'Balcombe Noise Management Plan (01)') back in August 2018 quantified the potential noise impact associated with the existing noise environment during the initial site exploration and well testing. The entire site was established suitable for the proposed development providing that the required level mitigation is employed during the full extent of the proposed works.
- 10.3.6** In terms of predicted noise levels, due to the distance between the site and the closest residential receptors and the nature of the site noise (i.e. broadband), it is unlikely that higher frequencies would contribute significantly to the overall noise level and the tones unlikely to be present at receptors. The noise will neither be intermittent (being continuous for the time it is on) irregular, nor impulsive. Therefore, no acoustic corrections as per conditions 13 of planning application ref: WSCC/040/17/BA have been applied to specific noise levels of the site operations.
- 10.3.7** An assessment for the proposed operation at the site has been conducted for each of those at the most exposed facades of the residential receptors for the site operations. The assessed residential receptors are as follows:
- Kemp Farm (R1);
 - Upper Pilstye Cottage (R2);
 - Pilstye Farm Cottage (R3);
 - Norfolk Cottage (R4); and
 - Peartree Cottage (R5).
- 10.3.8** Although the calculated plant level (LAeq) at each receptor is below the 'first aim' criteria set in NPPF except during night time, they are above the measured background level (LA90) at some receptors. As a result, the site activities may be audible at the properties façades but are unlikely to be dominant in the existing noise environment. The above assessment indicates that noise from the site operations with respect to

residential receptors is a *low impact*.

10.3.9 At R1 (Kemp Farm) the predicted noise level is + 1dB above the noise criteria during the night time period but is *unlikely to have a significant affect*. However, it should be noted that the noise predictions are considered to be a maximum case (based on maximum case assumptions) and in practice noise levels are *expected to be lower*. However, if complaints are received the continuous monitoring should be undertaken at this receptor. The monitoring will follow the noise monitoring procedures with Section 19 of the accompanying Noise Assessment report. Where exceedances of the criteria are measured in practice additional noise control measures will be identified by the project team.

10.3.10 Given the above, it is considered that the operations part of this application are capable of being adequately controlled by conditions requiring monitoring, and remediation if levels are exceeded as was the case with the previous planning application.

10.3.11 Therefore, based on the findings of the accompanying Noise Assessment report, it can be concluded that the proposed development does not conflict with the relevant policies in the development plan and those policy documents that constitute material considerations.

10.4 Potential Impact on Amenity - Air Quality

Development Plan Context and Consideration of Previous Planning Application

10.4.1 Policy M15 (Air and Soil) of the JMLP highlights that proposals for mineral development will be permitted provided that there are no unacceptable impacts on the intrinsic quality of, and where appropriate the quantity of, air and soil.

10.4.2 Policy M18 (Public Health and Amenity) of the JMLP states that proposals for minerals development will be permitted provided that lighting, noise, dust, odours, vibration and other emissions, including those arising from traffic, are controlled to the extent that there will be no unacceptable impact on public health and amenity.

10.4.3 In terms of air pollution, Policy DP29 of the MSDP states that development will only be permitted where:

- It does not cause unacceptable levels of air pollution;

- Development on land adjacent to an existing use which generates air pollution or odour would not cause any adverse effects on the proposed development or can be mitigated to reduce exposure to poor air quality to recognised and acceptable levels; and
- Development proposals (where appropriate) are consistent with Air Quality Management Plans.

10.4.4 In terms of planning application ref: WSCC/040/17/BA with regards air quality, the Council considered that the development has the potential to result in impacts on air quality through the flare, and an increase in vehicles travelling to and from the site. However, emissions from the flare are controlled by the Environmental Permit which applies to the operations. The potential impact upon amenity and air quality as a result of increased vehicle numbers is not considered to be significant, as numbers are relatively low, on B- and A-roads, and for a temporary period.

Technical Report – Air Quality Assessment Summary

10.4.5 RSK Environmental Ltd were commissioned to undertake an Air Quality Assessment of the potential impacts associated with the proposed development. A summary of the report is as follows:

10.4.6 The proposed development will not generate a significant amount of traffic once operational, therefore using EPUK-IAQM guidance, the impact of operational phase traffic on local air quality have been considered to be *negligible*.

10.4.7 The main potential air quality impact once the proposed development is operational is considered to be emissions from the proposed flare and generator engines. An assessment of operational impacts has been undertaken using AERMOD, an advanced atmospheric dispersion model developed for regulatory purposes, with the use of meteorological data measured between 2014 and 2018 at the Gatwick airport weather station. Concentrations of key air pollutants (NO_x, NO₂, PM₁₀, PM_{2.5} and CO) have been predicted at discrete receptor locations. Receptors Included in the Dispersion Modelling Assessment are set out below.

Residential Receptors	Ecological Receptors
R1 Kemps Farm 1	E1 Rowhill Copse LNR
R2 Kemps Farm 2	E2 Ardingly Reservoir LNR
R3 Brook Cottage	E3 Rowhill and Station Pastures LWS

R4 Holt's Cottages (24 Haywards Heath Road)	E4 Balcombe Marsh LWS
R5 Glebe's Farm	E5 Balcombe Estate Rocks LWS
R6 Haywards Heath Road	E6 Ardingly Reservoir and Loder Valley Nature Reserve LWS
R7 Bowders Farm	E7 Balcombe Lake and Associated Woodlands LWS
R8 Bowder's Cottage	E8 Ashdown Forest SAC
R9 Norfolk Cottages	
R10 Upper Pilstye Cottages	
R11 Pilstye Farm	

- 10.4.8 The highest predicted impacts at the modelled off-site discrete receptor locations in any of the five meteorological years have been reported and compared to the relevant AQS objectives. There were *no predicted exceedances* of any of the AQS objectives for human or ecological at the modelled discrete receptor locations in any of the modelled meteorological years.
- 10.4.9 In order to assess the potential impact of increases in pollutant concentrations attributable to the proposed development on existing sensitive receptors, the results have been interpreted using the 2017 EPUK-IAQM guidance. The proposed development was found to have *negligible impact* on all pollutant concentrations assessed.
- 10.4.10 The proposed development was also assessed as having a minimal impact at nearby sites designated for their ecological importance (see table above), with regards to nitrogen and acid deposition, and ambient annual mean NO_x concentrations when the flow testing and flaring operational period is taken into account.
- 10.4.11 The assessment has concluded that the air quality impact of the proposed development is considered as *not significant*. As this assessment has determined that the operational phase impacts on local air quality are not significant, additional mitigation measures have not been recommended and the residual impacts are considered to be *acceptable*.
- 10.4.12 Therefore, based on the findings of the accompanying Air Quality Assessment report, it can be concluded that the proposed development does not conflict with the relevant policies in the development plan and those policy documents that constitute material considerations.

10.5 Potential impact on the Water Environment (Hydrogeology, Hydrology and Flood Risk)

Development Plan Context and Consideration of Previous Planning Application

10.5.1 Criteria (a)(iii) and (a)(v) of Policy M7a of the JMLP seek to avoid any unacceptable impacts on the water environment and from the on-site storage or treatment of hazardous substances and/or contaminated fluids above or below ground.

10.5.2 Policy M16 of the JMLP states that proposals for mineral development will be permitted provided where they would not cause unacceptable risk to quality and quantity of water resources; and not cause changes to groundwater and surface water levels which would result in unacceptable impacts on:

- adjoining land;
- the quality of groundwater resources or potential groundwater resources; and
- the potential yield of groundwater resources, river flows or natural habitats such as wetlands or heaths.....”.

10.5.3 Policy M19 (Flood Risk Management) of the JMLP indicates that “....Proposals for minerals development will be permitted provided that:

- mitigation measures are provided to an appropriate standard so that there would not be an increased risk of flooding on the site or elsewhere for the life of the development including any restoration or aftercare...;
- ...appropriate measures are used to manage surface water run-off, including, where appropriate, the use of sustainable drainage systems; and
- they would not have any unacceptable impact on the integrity of sea, tidal or fluvial flood defences, or impede access for future maintenance and improvements of such defences...”

10.5.4 Policy DP42 of the MSDP states that new development proposals must accord with the objectives of the Water Framework Directive and accord with the findings of the Gatwick Sub Region Water Cycle Study with respect to water quality, water supply and wastewater treatment.

10.5.5 In terms of planning application ref: WSCC/040/17/BA with regards the water

environment, the Environment Agency and Health and Safety Executive did not raise concerns in relation to the proposal and the risk to surface water would be minimised by carrying out activities on an impermeable membrane with a sealed drainage system. Conditions were added to the permission requiring the submission of a scheme to protect the water environment, as well as surface and foul water drainage schemes.

- 10.5.6 With regards to groundwater, it was assumed that the well is constructed and operated to the appropriate standards. Mapping and surveys ensure that there is no risk of the present well intersecting with the well drilled in the 1980s. It is proposed as a contingency option to use dilute hydrochloric acid to clean the well, which is a standard procedure with many boreholes, including those for drinking water. The hydrochloric acid would react with material in the borehole to become non-hazardous salty water. It was therefore concluded that the development did not pose a risk to the water environment, either at the surface or groundwater and that the proposal accorded with criteria (a)(iii) and (a)(v) of the then emerging Policy M7a.

Technical Report – Hydrology, Flood Risk and Drainage

- 10.5.7 A Hydrology, Flood Risk and Drainage Assessment has been conducted by RSK. A summary of the report is as follows:

Flood Risk

- 10.5.8 Given the location of the site within Flood Zone 1 and the absence of significant external overland flow routes through the site, no further mitigation measures to control runoff from outside the site are required. The site remains outside of any active fluvial flood zones and no modifications are proposed to extend the site into them.
- 10.5.9 The proposed reactivation is therefore expected to have *negligible* effects on and from fluvial flooding from the surrounding watercourses in the short, medium, and long term.
- 10.5.10 Due to the underlying sandstone geology, groundwater flooding is not considered to pose any risk to site. The proposed reactivation is therefore expected to have *negligible* effects on groundwater in the short, medium, and long term.
- 10.5.11 Since the site is not in proximity to any other artificial water features (sewers or reservoirs) and no new extensions are proposed to the sites systems, site risk is not

expected to change as a result of the sites reactivation.

Drainage

10.5.12 Any internally generated surface runoff is attenuated by the onsite system. This will ensure that any surface water generated by and used in the drilling operations will be contained onsite and removed as necessary. Since the process does not result in any uncontrolled runoff the effects on any external features outside the sites bund is considered *negligible*.

10.5.13 The remaining area of the site compound (the non-concrete pad) will continue to infiltrate into the underlying soils supported by the enclosing ACO French drain and oil interceptor systems. Under non-operational conditions this drain discharges via a trickle flow to the watercourse. During the operational phase, the butterfly valve will be shut, and any excess water tinkered offsite after collation via the “sump pump”. This setup will ensure that there is a *negligible* impact on the surrounding hydrology during the operational phase. The trickle discharge to the watercourse during non-operation is maintained by the perimeter drain, also ensuring a *negligible* impact on the receiving watercourse in the long term.

Conclusions

10.5.14 The FRA complies with the NPPF and Planning Practice Guidance and demonstrates that the flood risk from all sources has been considered in the proposed development.

10.5.15 The existing surface and water quality control features ensure that any effects on flood risk, hydrology and drainage are considered to be *minor to negligible*.

10.5.16 Flood risk is not enhanced because any runoff is contained onsite and no increase in impermeable area is proposed so no modifications to the system are required.

10.5.17 The single surface water outfall from the site will be shut down during operations and all surface drainage will be removed by alternative means. Any effects from operations or any potential incidents on site will also be minor, and controllable due to the proposed mitigation measures and control features onsite.

10.5.18 Therefore, based on the findings of the accompanying Hydrology, Flood Risk and Drainage report, it can be concluded that the proposed development does not conflict with the relevant policies in the development plan and those policy documents that

constitute material considerations.

10.6 Potential Impacts on Landscape

Development Plan Context and Consideration of Previous Planning Application

10.6.1 Policy M12 (Character) of the JMLP states that proposals for minerals development will be permitted provided that they would not have an unacceptable impact on the character, distinctiveness, sense of place of the different parts of the County including the setting of the High Weald AONB.

10.6.2 Policy M13 (Protected Landscape) of the draft JMLP highlights that proposals for minerals development within protected landscapes will not be permitted unless the proposal is for major mineral development that accords with part (c) of the Policy.

10.6.3 Part (c) of the Policy indicates that “.....development will not be permitted unless there are exceptional circumstances and where it is in the public interest as informed by an assessment of:

- I. The need of the development, including in terms of any national considerations, and the impacts of permitting it, or refusing it, upon the local economy;
- II. The cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for the mineral in some other way; and
- III. Any potential detrimental impact on the environment, landscape, and recreational opportunities, and the extent to which identified impacts can be satisfactorily mitigated.....”

10.6.4 Policy DP12 of the MSDP (Protection and Enhancement of Countryside) states that: The countryside will be protected in recognition of its intrinsic character and beauty. Development will be permitted in the countryside, defined as the area outside of built-up area boundaries on the Policies Map, provided it maintains or where possible enhances the quality of the rural and landscape character of the District, and:

- it is necessary for the purposes of agriculture; or
- it is supported by a specific policy reference either elsewhere in the Plan, a Development Plan Document or relevant Neighbourhood Plan.

10.6.5 Policy DP16 of the MSDP (High Weald Area of Outstanding Natural Beauty) states that:

10.6.6 Development within the High Weald Area of Outstanding Natural Beauty (AONB), as shown on the Policies Maps, will only be permitted where it conserves or enhances natural beauty and has regard to the High Weald AONB Management Plan, in particular;

- the identified landscape features or components of natural beauty and to their setting;
- the traditional interaction of people with nature, and appropriate land management;
- character and local distinctiveness, settlement pattern, sense of place and setting of the AONB; and
- the conservation of wildlife and cultural heritage.

10.6.7 The policy also states that small scale proposals which support the economy and social well-being of the AONB that are compatible with the conservation and enhancement of natural beauty will be supported.

10.6.8 In terms of planning application ref: WSCC/040/17/BA with regards impact on landscape, the Council considered that the application site is located within the High Weald Area of Outstanding Natural Beauty (AONB), so great weight must be given to conserving landscape and scenic beauty. The most visible elements of the development would be the workover rig at 32 metres in height, and the enclosed flare at 13.7 metres in height. However, these elements would only be in place for four weeks and one week respectively. The other development on site would be at a relatively low level and screened by mature vegetation. This and the temporary nature of the development has led WSCC's Landscape Officer to conclude that the development is unlikely to result in significant impacts on landscape or the natural beauty of the area. It is therefore concluded that the proposal accords with Policy M13 of the JMLP and is acceptable in terms of its potential visual impact and impact on the landscape.

Technical Report – Landscape and Visual Impact Assessment (LVIA)

10.6.9 A Landscape and Visual Impact Assessment (LVIA) was conducted by RSK which

comprises an appraisal of the existing landscape and visual baseline and identifies potential landscape and visual effects of the proposed operations.

10.6.10 With regards to landscape effects, it has been considered that the direct effect on the landscape character and AONB would be *locally Minor adverse* reducing within the wider area to *Negligible*.

10.6.11 The main summary of comments regarding landscape effects are as follows:

- Landscape sensitivity is considered medium as a result of combining the high landscape value of the High Weald AONB and LCA with the low susceptibility to change due to the proposed development utilising an existing drill rig pad;
- It is considered that the proposed development will alter a very small geographical area that is secluded and surrounded by woodland cover within the context of a large-scale landscape character area and is therefore considered to be localised; and
- The duration of operation will be for approximately 3 years and therefore temporary and reversible once operations are completed.

10.6.12 With regards to landscape visual effects it was considered that no effects have been identified greater than *Minor adverse* and therefore is deemed that overall visual effects as a result of the proposed development would *not be prominent*.

10.6.13 The main summary of comments regarding landscape visual effects are as follows:

- There are relatively few visual receptors within the study area which have the potential to experience visual effects of the proposed development given the secluded, wooded and enclosed nature of the location;
- The addition of the proposed development to an existing drill rig pad that was previously used in 2018; and
- The tall 40m crane component partially visible over the woodland or intervening vegetation would result in a barely perceptible change in views.

10.6.14 Based on the temporary nature of the predicted landscape and visual effects, although longer than considered under the previous application, it can be concluded that there is no conflict with the relevant policies in the development plan or those policy documents that constitute material planning considerations.

10.7 Potential Impacts on Ecology

Development Plan Context and Consideration of Previous Planning Application

- 10.7.1 Policy M17 (Biodiversity and Geodiversity) of the draft JMLP states that proposals for minerals development will be permitted provided that there is no significant harm to wildlife species and habitats, or significant harm is effectively mitigated where it cannot be avoided, or (as a last resort) there is suitable compensation where there is still significant residual harm.
- 10.7.2 Policy DP37 (Trees, Woodland and Hedgerows) of the MSDP supports the protection and enhancement of trees, woodland and hedgerows, and encourage new planting. In particular, ancient woodland and aged or veteran trees will be protected.
- 10.7.3 Policy DP38 (Biodiversity) of the MSDP states that Biodiversity will be protected and enhanced by ensuring development:
- Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so that there is a net gain in biodiversity, including through creating new designated sites and locally relevant habitats, and incorporating biodiversity features within developments;
 - Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate measures should be taken to avoid and reduce disturbance to sensitive habitats and species. Unavoidable damage to biodiversity must be offset through ecological enhancements and mitigation measures (or compensation measures in exceptional circumstances);
 - Minimises habitat and species fragmentation and maximises opportunities to enhance and restore ecological corridors to connect natural habitats and increase coherence and resilience;
 - Promotes the restoration, management and expansion of priority habitats in the District; and
 - Avoids damage to, protects and enhances the special characteristics of internationally designated Special Protection Areas, Special Areas of Conservation; nationally designated Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty; and locally designated Sites of Nature

Conservation Importance, Local Nature Reserves and Ancient Woodland or to other areas identified as being of nature conservation or geological interest, including wildlife corridors, aged or veteran trees, Biodiversity Opportunity Areas, and Nature Improvement Areas.

10.7.4 In terms of planning application ref: WSCC/040/17/BA with regards ecology, the Council considered that the proposed development was adjacent to ancient woodland, and there are a number of Sites of Special Scientific Interest in the local area, though relatively distant from the site, each more than 2,000 metres away. A key concern related to the potential impact on bats. However, WSCC's Ecology officers raised no objection, subject to conditions to control lighting on the site, and bat monitoring. It was considered that the potential impact of the development on habitats and species would be minimal, subject to controls on emissions to air and the water environment which would contain the operation within the site. It was therefore considered that the proposal was acceptable in terms of its potential impact on ecology.

Technical Considerations – Ecology

10.7.5 RSK were commissioned to undertake ecological assessments and the following reports are submitted in support of the planning application:

- Preliminary ecological appraisal;
- Bat activity report; and
- Habitat regulation assessment.

10.7.6 The main findings and recommendations of the above reports are summarised as follows:

10.7.7 The survey area comprises hard-standing, ruderal vegetation, scrub, trees, a hedgerow and woodland (both plantation and ancient). The site was previously surveyed by RSK in 2017.

10.7.8 Works will be restricted to an area of hard-standing and an existing access track and adjacent habitat will not be directly affected.

10.7.9 Although there are areas of ancient woodland adjacent to the survey area, habitats and plant species within the works footprint were common and widespread and are

replaceable.

10.7.10 There will be no direct effects on nearby designated and non-designated sites, but indirect effects (such as run-off, light spill and effects to air quality) need to be considered and previous mitigation plans updated.

10.7.11 Ashdown Forest Special Area of Conservation (SAC) is within 10 km of the site and a habitat regulations assessment (HRA) screening assessment is accompanying this report to help the competent authority decide whether an appropriate assessment is needed.

10.7.12 The only protected species which may be affected by the works are reptiles, nesting birds and foraging and commuting bats. Further actions and mitigation for these species is provided below.

Birds

10.7.13 Although no active bird nests were observed during the survey, areas of scrub and trees provide suitable habitat for common nesting bird species. The hardstanding works area provides no suitable nesting opportunities.

10.7.14 Vegetation clearance is unlikely to be required as part of the proposal however, if any vegetation clearance is required, it should be conducted outside the breeding bird season (March to August inclusive). If this is not possible then a watching brief by an ecologist would be required to ensure that no nesting birds are present, no more than 48 hours prior to vegetation being cleared. If nests were found to be present during this time, work would have to stop until the nestlings had fledged. All active birds' nests, regardless of species, are protected by law. A nest is deemed to be active even if it is in the process of being built and does not yet contain eggs or young. If vegetation clearance is undertaken outside of the nesting season, then nesting birds do not have to be considered.

Bats

Roosting – Trees

10.7.15 There are a number of mature trees along the edge of the woodland to the north, east and south of the works footprint. However, none of these will be felled as part of the proposed development and they have not therefore been considered any further. All

of the remaining trees have 'negligible potential' for roosting bats as they are too immature to have suitable features.

10.7.16 Under current proposals, no trees will be directly affected. Mature trees along the edges of adjacent woodland are likely to provide roosting opportunities for bats, however these are over 5m from the works area. If proposals change and these trees are affected, further surveys will be required to ascertain whether bats are roosting in these trees.

Foraging and commuting

10.7.17 As a whole, the survey area is considered to have high value for foraging and commuting bats, however, as the works will be restricted to the area of hard-standing there will be no direct effects on habitat suitable for foraging and commuting bats. Although the works area on its own is considered to have low value for foraging and commuting bats, the site will be well lit by artificial lighting therefore, there is potential for indirect effects on adjacent habitat. In previous instances, discussions with the county ecologist agreed a survey scope proportionate to the works and potential effects, involving three surveys visits undertaken seasonally across the bat active period (one in spring, one in summer and one in autumn). The habitats present do not appear to have changed to a sufficient degree that its suitability would have changed. If no changes to the original scope of works and lighting strategy are proposed, a repeat of the previous survey effort should be sufficient to inform and update a lighting plan, but this would need to be agreed with the local authority.

Common reptiles

10.7.18 There are records of the four common reptiles within 1 km of the site and scrub provides some potential for foraging and hibernation. However, the site is isolated from any large patches of rough grassland and does not provide extensive areas of suitable habitat which could support more than a few individuals.

Conclusion

10.7.19 It is considered that the potential impact of the development on habitats and species would be minimal, subject to controls on emissions to air and the water environment which would contain the operation within the site. The mitigation outlined above and in the supporting reports will reduce the amount of light reaching adjacent habitats

and protect nocturnal species using the surrounding area. It is therefore concluded that the works will have a minimal effect on protected sites and species.

10.8 Other Considerations

Pollution Prevention

10.8.1 In order to protect the water environment, a pollution prevention statement was submitted to discharge condition 7 of planning application ref: WSCC/040/17/BA. This document has been updated and is attached at Appendix 4 to this statement.

Foul Water Drainage

10.8.2 In order to protect the environment and people from the impacts of foul water, a foul water drainage statement was submitted to discharge condition 9 of planning application ref: WSCC/040/17/BA. This has been updated and is set out as follows:

10.8.3 Angus shall hire portaloos and welfare cabins from an approved supplier for the duration of the programme of work. The portaloos and welfare cabins are designed to be durable and robust as well as being easy to clean and maintain. The portaloos and welfare cabins shall be plumbed into the wellsite's mains water and generator system and commissioned onsite by a competent person. The portaloos shall be linked together to create a seamless integrated facility for both males and females.

10.8.4 The portaloos and welfare cabins shall be fitted with high-quality sinks & taps, with hot and cold running water, full-flushing toilets and lighting for the working hours onsite. Maintaining good levels of housekeeping onsite is a strict Angus Site Rule. The portaloos and welfare cabins shall be visited, inspected and cleaned on a daily basis to maintain good levels of cleanliness and hygiene.

10.8.5 The domestic sewage waste from toilets, sinks, basins, washing machine, tumble dryer and shower unit shall be stored in self-contained tanks and these shall be emptied and disposed of using a registered and approved waste contractor. The vacuum tanker shall be called upon on an as-and-when required basis to ensure the portaloos and welfare cabins are kept in good working order for the requirement of the project. The waste contractor's operational team are fully trained professionals, who conform to industry codes of best practice.

10.8.6 The waste contractor shall transport and dispose the waste to a licensed sewage

treatment facility. Every transfer of waste between Angus and the waste contractor shall be covered by a Waste Transfer Note (WTN) as specified under the Waste (England and Wales) Regulations 2001 and subsequent amendments in 2012 and 2014. Angus shall make these WTN available to any internal or external interested party and these records shall be kept and maintained by Angus for at least two years.

- 10.8.7** Angus shall ensure that the facilities required for the programme of work are sufficient and suitable, adequately ventilated and lit and kept in a clean and orderly condition. Angus shall fully comply with the legal obligations as outlined under the Workplace (Health, Safety and Welfare) Regulation 1992 and associated primary and secondary legislation.
- 10.8.8** Utilising temporary portaloos and welfare cabins onsite is considered the most appropriate and suitable method due to the duration of the programme of work. The portaloos and welfare cabins shall be shown clearly on wellsite layout drawings. The portaloos and welfare cabins shall be situated in pedestrian areas onsite and outside the working area.
- 10.8.9** The proposed scheme shall be implemented in full and maintained throughout the duration of the project.

11 Conclusion

- 11.1.1 This statement has described the application site, provided a brief overview of the proposed development and using the evidence presented in the accompanying technical reports, assessed how it performs against the relevant policies in the development plan and those policy documents that constitute material planning considerations.
- 11.1.2 The NPPF gives 'great weight' to the benefits of mineral extraction, including to the economy and highlights that minerals can only be worked where they are found. PPG: Minerals notes that oil and gas will continue to form part of the national energy supply and gives a clear steer from Government that there is a continuing need for indigenous oil and gas. Policy M7a of the JMLP supports exploration/appraisal on sites that are, among other things, the least sensitive, deliverable location. The site has been associated with hydrocarbon exploration and appraisal for over 30 years so represents the most appropriate site in West Sussex to accommodate the type of development that is being proposed. The application site is within PEDL 244, so that is the 'search area' for the purposes of this application. By using this site, the operator can make use of existing, site-specific geological data, and utilise the borehole drilled in 2013 and the associated infrastructure on site, including the membrane and access road. It is, therefore, concluded that there is an identified need for local oil and gas production, and that there is an identified need for development on this particular site, to establish whether the hydrocarbons identified in drilling in 2013 are exploitable.
- 11.1.3 In approving planning application ref: WSCC/040/17/BA, it was considered that the development would not result in significant impact on people or the environment. Given the similarities between this proposal and that previously approved, although the timescales for this proposal are longer, these conclusions are relevant when considering this application.
- 11.1.4 Through the issue of a screening opinion, which set out that the development would not require an Environmental Impact Assessment, WSCC has confirmed that the proposed development is unlikely to generate any significant environmental effects.
- 11.1.5 In terms of the environmental topics discussed above in section 10 of this statement and set out in the accompanying reports, it can be concluded that as a maximum case

there is the potential for some minor, direct and indirect adverse effects to be experienced at sensitive receptors. However, any minor, adverse effects will be experienced for a temporary period and will be reversible. For the majority of the environmental topics that have been considered in this report, predicted environmental effects will be negligible.

- 11.1.6** On balance, it can be concluded that the proposed temporary development is acceptable when it is considered against the development plan and any relevant material considerations. Accordingly, it is recommended that WSCC grant temporary planning permission, subject to the imposition of any conditions deemed necessary.
- 11.1.7** In overall conclusion, it is considered that the proposed temporary development is environmentally acceptable, and the proposed development has the potential to support the objectives of boosting indigenous oil and gas reserves and supporting the wider economy as set out in the NPPF and PPG. Where adverse impacts do arise, they are not significant and appropriate methods of working and other mitigation measures can be promoted that are capable of further reducing the effects of any such impact.
- 11.1.8** All mitigation can be formalised as appropriate through the imposition of planning conditions and other development control mechanisms. The potential environmental and local amenity impacts are therefore considered acceptable and the proposal accords with Development Plan policy. Accordingly, it is recommended that WSCC grant temporary planning permission, subject to the imposition of any conditions deemed necessary.

Appendix 1 – Decision Tree

Stage 1 – Pumping remaining drill fluids

Step 1.

Use Linear Rod Pump to pump ~200 – 300 bbls of fluid out of the well into tanks. This removes excess drilling fluid remaining in the well from previous operations. ~3-5 day operation that would cease immediately as and when dry oil flow is reached (Minimum/half well test kit – see page2)

Oil seen following removal of fluids

No oil seen post fluid removal

END OF OPERATIONS

All excess drilling fluids recovered to surface, followed by formation water and not oil. Operations to cease

Stage 2 – Extended Well Test

Step 2.

EWT - Extended Well Test to Begin

- Full well test package on site with Linear Rod Pump on the well to lift fluids to surface
- Test period to run for 18 – 24 months (OGA permissions depending)
- Test period to include several flow periods and shut in periods to assess commerciality of reservoir
- Fluids stored on site and trucked off as required

Oil rates not sustained or drop off very quickly (days)

(1)

Coiled Tubing Unit used to Lift Well

- Coiled Tubing (CT) unit mobilised to lift fluids in well using Nitrogen (as per Autumn 2018 well test)
- ~2-4 Nitrogen tanks on site for this purpose

OR

Nitrogen Racks used to lift well

- Instead of CT, Nitrogen is used in small 'racks' and discharged into the well to lift fluids

Sustained flow achieved from N2 lift, test continued

Oil rates not sustained or drop off very quickly (days)

(2)

HCl Acid wash using CT

- Acid wash as per utilised in Autumn 2018 test to clean the well and formation and attempt to increase flow

Well Test undertaken to assess commerciality of well

Sustained flows achieved

High water cut seen in returns

(3)

Inflatable Bridge Plug on CT

- Formation water ingress identified in lateral section & inflatable bridge plug run to isolate the water bearing section

Sustained flows achieved

END OF OPERATIONS

18 – 24 months well test completed. All equipment removed from site and well suspended

N.B. The contingency operations (1), (2) & (3) above may be required to be used more than once depending on their success and the response of the well

Associated Equipment List

Stage 1 – Pumping remaining drill fluids

Note that there is no new equipment proposed compared to what was used in the Autumn 2018 well test. In fact, it is anticipated that in general there will be considerably less kit on site

STEP 1 - The following equipment would be on site for the stage 1 pumping operation. This is a minimal well test package and tanks. All equipment will be banded as per CIRIA guidelines.

- Surge Tank – Low pressure separator
- Associated Pipe Work & Manifolding
- Oil & waste storage tanks
- LRP – Linear Rod Pump
- Vapour Recovery Tank (as per EA Specifications)

Stage 2 – Extended Well Test

STEP 2 - The following equipment would be on site for the extended well test operation. This is a full well test package and tanks. Extra equipment for contingency options (1), (2) & (3) is also listed.

- Test Separator Unit, MAWP 1440 psig
- Onboard data acquisition and reporting system
- Associated Pipework & Manifolding Package
- Surface ESD system
- Choke Manifold
- Surge Tank – Second stage separator
- Oil & waste storage tanks
- LRP – Linear Rod Pump
- Vapour Recovery Tank (as per EA specifications)

Note the above is a full standard 'Well test package' as used in Autumn 2018. The equipment supplier will be the same as before

Contingency (1) – Nitrogen Lift

If Nitrogen lift is required the kit on top of the above list will be as follows. Note the use of a CT unit is exactly the same as was used in the Autumn 2018 test.

- Coiled tubing unit incl. injector head and reel
- Nitrogen Converter
- 2 – 4 Nitrogen tanks

If Nitrogen is not to be used via Coiled Tubing, the nitrogen will be discharged down the well via lines from commercially available 'racks'.

Contingency (2) – Acid Wash with CT

If an acid wash is required, this will be done with the CT equipment as above, with the following additions:

- HCl Acid Truck (on site only for the day)

Contingency (3) – Inflatable Bridge Plug with CT

If a bridge plug is required to be set this will be run on the CT equipment as per Contingency (1)

Appendix 2 – Screening Opinion

SCREENING OPINION

THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017

Screening Opinion reference: BA/19a
Applicant: Angus Energy
Agent: Heatons
Date Received: 18 July 2017
Site: Lower Stumble Exploration Site, London Road, Balcombe RH17 6JH
Proposal: Removal of drilling fluids and extended well test.

This proposal is a two-stage activity:

- 1) Pumping out previously used drilling fluids to ascertain any oil flow;
- 2) Should oil be seen to flow, an extended well test would be carried out over a period of 3 years

The intention of the proposed operation is to remove this remaining fluid from the wellbore, after which oil may begin to be produced. Assuming that the first stage activity is successful and oil flow is seen, the operator would carry out an Extended Well Test (EWT).

In terms of equipment and plant to be used, the removal of fluids would include a linear rod pump, a surge tank, storage tanks, vapour recovery tanks and various associated pipework. Ancillary equipment would include a welfare unit and a security office. Acoustic barriers will be installed around the operational area.

The EWT operation is said to use similar equipment and plant to that allowed under temporary planning permission WSCC/040/17/BA including an enclosed flare (previous flare was 13.7m in height), coiled tubing unit, generators, tanks for oil and waste storage, a separator unit and security and welfare facilities. A crane (40m in height) is also confirmed to be on-site for up to 10 days. However, a workover rig would not be required.

Classification of the Proposed Development

The proposal does not comprise Schedule 1 development, as defined in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 ('the EIA Regulations').

The application site is located within a 'sensitive area', as defined in regulation 2(1) of the EIA Regulations, namely the High Weald Area of Outstanding Natural Beauty. Accordingly it is considered to fall within Schedule 2 of the EIA Regulations.

In addition, the development falls within Part 2(e) of Schedule 2 to the EIA Regulations as it relates to a surface industrial installation for the extraction of

petroleum and natural gas. The site measures 0.73 hectares in area and so exceeds the 0.5 hectare threshold set out in column 2 to Schedule 2.

Accordingly, consideration needs to be given, with reference to Schedule 3 to the EIA Regulations, as to whether the development would have the potential to result in 'significant environmental effects' which require an EIA.

Characteristics of Development	
Development Area	Site area – 0.73 hectares including the pad, access road and lateral borehole (already drilled).
Nature / Scale / Design of Whole Development	<p>The development would be temporary, for a period of approximately 3 years.</p> <p>The Screening Request notes that the works would comprise two stages, namely:</p> <ul style="list-style-type: none"> - Pumping out previously used drilling fluids to ascertain any oil flow; and (should oil be seen to flow), - An extended well test <p>The Screening Request states that vehicle movements associated with the development would be no more than which were approved under permission WSCC/040/17/BA. However, with an extended time-scale, daily and maximum HGV numbers could be experienced over a longer period. The existing site access from London Road would be used for all operations, with lorries routed to the north via Balcombe and the A23.</p>

	Likely/Unlikely – briefly describe	Is this likely to result in a significant effect?
1. Will the development involve actions that will cause physical changes in the locality (topography, land use, changes in waterbodies etc.)?	Likely – changed use of site from dormant to active hydrocarbon site, for a temporary period.	No. Although proposed for 3 years, the use would still be temporary. In addition, the site is relatively small and physical changes relatively minor. Drilling of site has already taken place and no further activity of that nature is proposed. Unlikely to result in significant effects.

	Likely/Unlikely – briefly describe	Is this likely to result in a significant effect?
<p>2. Will the development use natural resources such as land, soil, water, biodiversity, materials, or energy, especially resources that are non-renewable, in short supply or have low capacity to regenerate?</p>	<p>Unlikely. No greenfield land would be used; significant resources (water, soil, land, biodiversity, materials and energy) would not be used in the development. Some non-renewable fossil fuels would be used by vehicles travelling to/from the site, and generators used, and some fossil fuels may be extracted for testing and excess gas would be flared.</p>	<p>No significant resource use anticipated, as development is for a temporary period, and the scale of fossil fuel use would not be so great as to be considered to result in a 'significant effect'.</p>
<p>3. Will the development involve the use, storage, production of substances or materials that could be harmful to people or the environment?</p>	<p>Likely. Operations would result in returned water from the borehole, mud and cement from plugging and abandonment of the borehole, gas flared during operations, and sanitary waste from site employees.</p>	<p>No significant effects anticipated, given complementary Environmental Permitting regime and Health & Safety Executive (HSE) requirements. Pad is bunded with impermeable membrane; liquid and solid waste would be contained on site before being taken off to appropriate facilities; gas emissions and any naturally-occurring radioactive materials (NORMs) are managed through Environmental Permitting process.</p>
<p>4. Will the development produce significant volumes of wastes during construction, operation or decommissioning?</p>	<p>Unlikely. Limited waste likely to result from site set-up. Operational wastes not significant in volume.</p>	<p>Significant volumes of waste not anticipated, and would be controlled through the Environmental Permitting process.</p>
<p>5. Will the development give rise to significant noise, vibration, light, dust, odours?</p> <ul style="list-style-type: none"> - during construction - during operation 	<p>Unlikely. Operations not generally associated with significant noise or other emissions, and primarily undertaken during day.</p>	<p>No significant impacts anticipated, taking into account appropriate mitigation (such as noise monitoring and acoustic housing of generators, and shrouded lighting) that could be secured by condition.</p>

	Likely/Unlikely – briefly describe	Is this likely to result in a significant effect?
6. Does the proposal have the potential to release pollutants to air, land, or water?	Likely if not appropriately controlled.	No significant effects anticipated given limited physical works proposed (no drilling and no hydraulic fracturing), and controls through planning and Environmental Permitting processes, as well as requirements of HSE regarding well design, construction and integrity.
7. Are there areas on or around the location that are already subject to pollution or environmental damage – e.g. where existing environmental standards are exceeded, which could be affected by the project?	Unlikely. Although application site has previously been used for hydrocarbon exploration, there is no indication that environmental standards have been exceeded.	No significant effects anticipated. Development not expected to exceed environmental standards. Site is controlled through planning, Environmental Permitting processes, and HSE requirements.
8. Is there a high risk of major accidents and/or disasters, including those caused by climate change, during construction or operation of the development that could have effects on people or the environment?	Unlikely. Operations do not pose significant risk in terms of major accident or disaster, particularly given planning, permitting and HSE controls.	No significant effects anticipated.
9. Will the project result in social changes e.g. demography, traditional lifestyles, employment?	Unlikely. No changes anticipated.	No significant effects anticipated.
10. Will the development pose significant risks to human health, for example due to water contamination or air pollution?	Unlikely. Operations would be temporary, albeit over 3 years. Controls would be in place to ensure sensitive water bodies are not affected. Air emissions would be controlled through the Environmental Permitting process.	No significant effects anticipated, given the limited physical works proposed (no drilling and no hydraulic fracturing) and controls through planning and Environmental Permitting, and HSE requirements.
11. Are there areas on or around the location that are protected under international, national or local legislation for their ecological, landscape, cultural or other value that could be affected by the project?	Site is within High Weald Area of Outstanding Natural Beauty, and adjacent to Ancient Woodland.	No significant effects anticipated, given temporary nature of use, and relatively small physical scale of development. Previous works at the site have not been shown to affect such designations.

	Likely/Unlikely – briefly describe	Is this likely to result in a significant effect?
12. Are there any other areas around the location that are important for their ecology e.g. wetlands, riparian areas, river mouths, mountains, forests, coastal zones, the marine environment, nature reserves and parks that could be affected by the project?	No sites statutorily designated for ecological reasons within 2km of site. Ashdown Forest Site of Special Scientific Interest, Special Protection Area, and Special Area of Conservation located 10.5km to east. Several Sites of Nature Conservation Importance in vicinity, at closest 0.6km to north.	No significant effects anticipated as a result of proposal given distance to such sites, temporary nature of proposal, and ability of planning/ permitting/HSE regimes to ensure measures are in place to contain emissions.
13. Are there any areas on or around the location that are used by protected or sensitive species of fauna or flora that could be affected by the project?	Likely. Application site abuts ancient woodland. Historic ecological appraisals have indicated that the pad has limited ecological value, but the surrounding woodland is high quality for bat commuting and foraging.	No significant effects considered likely given temporary nature of activity and nature of site (hard-sealed site enclosed with fencing). If potential impacts are identified, conditions could be imposed to ensure that they would not be significant.
14. Are there any inland, coastal, marine or underground waters on or around the location that could be affected by the project?	Site is within 1 kilometre of Ardingly Reservoir. Other small streams in locality. Not within or near groundwater source protection zone.	No significant effects anticipated. Site is impermeably sealed and bunded; potential impacts on surface and groundwater controlled through planning and Environmental Permitting processes.
15. Are there any areas or features of high landscape or scenic value on or around the location that could be affected by the project?	Site is within High Weald AONB.	No significant effects anticipated. The largest piece of equipment, the crane at 40m in height, would only be onsite for a maximum of 10 days and although the enclosed flare would onsite, the development site is enclosed with mature trees that help to mitigate any impact.
16. Is the project in a location where it is likely to be highly visible to many people?	Site is located between London Road (the B2036) and the London-Brighton railway corridor.	Significant effects unlikely given temporary nature of the development and transient views. The development site is enclosed with mature trees that help to mitigate any impact.

	Likely/Unlikely – briefly describe	Is this likely to result in a significant effect?
17. Are there routes on/around the location that are used by the public for access to recreation or other facilities that could be affected by the project?	The nearest PROW is some 300 metres north of the site, running from London Road under the railway corridor.	No significant impacts anticipated, given distance to PROW and limited physical works proposed.
18. Are there any routes on or around location that are susceptible to congestion or cause environmental problems, that could be affected by the project?	Unlikely. No Air Quality Management Areas affected; HGV movements not so significant as likely to cause congestion.	Some periods of intensive HGV movements, but short lived, and even with increased movements proposed, no significant impacts on congestion or the environment expected to result.
19. Are there any features of historic or cultural importance on or around the location that could be affected by the project?	Unlikely. No such buildings/ features within close proximity to site.	No significant impacts anticipated.
20. Will there be any loss of Greenfield land?	No greenfield land affected.	No impacts anticipated.
21. Are there existing land uses around the location that could be affected by the project?	Unlikely. Forest /agricultural land to north and south, B2036 to west, railway corridor to east so unlikely to be affected.	No significant impacts anticipated.
22. Are there areas on or around the location that are densely populated or built-up, that could be affected by the project?	Unlikely. Balcombe village some 0.8km north.	No significant effects anticipated. Some impact from HGVs accessing the site. However, even given the extended time period, no significant impacts on the environment is expected.
23. Are there areas on or around the location that are occupied by sensitive land uses e.g. hospitals, schools, community facilities that could be affected by the project?	Unlikely. No sensitive uses identified in vicinity of site, though lorries would pass primary school on route to A23.	No significant effects anticipated given the limited physical works proposed and temporary nature of development. Although over an extended period, HGV movements would not pose congestion issues. Significant impacts are not expected.
24. Are there any areas in or near the application site that contain high quality or scarce resources that could be affected by the development, e.g. groundwater resources, forestry, agriculture, tourism, minerals?	Site abuts Ancient Woodland and agricultural land.	No significant effects considered likely, given ability of Environmental Permitting regime to control emissions.

	Likely/Unlikely – briefly describe	Is this likely to result in a significant effect?
25. Is the location susceptible to earthquakes, subsidence, landslides, erosion, flooding, or adverse climatic conditions that could cause the project to present environmental problems?	Unlikely. No such features present.	No significant effects anticipated.
26. Are there plans for future land uses on or around the site that could be affected by the project?	Balcombe Parish Neighbourhood Plan (September 2016) identifies three new residential allocations, one of which would be near the train station on London Road, on the lorry route to be used by the operation.	Significant detrimental impact on forthcoming residential development unlikely given limited physical works proposed and temporary nature of development.
27. Is there a potential for transboundary impacts?	Unlikely. Site is not near any boundaries.	No significant effects identified.
28. Will any effects be unusual in the area or particularly complex?	Unlikely. No complex effects anticipated.	No significant effects identified, given controls in place through planning and Environmental Permitting regimes, as well as controls through the Oil and Gas Authority and HSE.

Conclusion

This Screening Opinion relates to a proposal for a temporary, albeit 3 year, permission for a two-stage activity at an existing hydrocarbon site near Balcombe. The proposal includes pumping out previously used drilling fluids to ascertain any oil flow, then (should oil be seen to flow) an extended well test.

The site has previously been used for hydrocarbon exploration, the most recent application (temporary planning permission WSCC/040/17/BA) allowed for a 7-day well test following a borehole being drilled in 2013 under planning permission WSCC/027/10/BA.

The site is within the High Weald Area of Outstanding Natural Beauty, defined in Schedule 2 to the EIA Regulations as a 'sensitive area'. It is adjacent to an ancient woodland. It is not subject to any other ecological, landscape, historic or other constraints, and is not within an area identified as being at risk of flooding, or in a groundwater source protection zone.

Because the operations fall within Schedule 2 to the EIA Regulations, the site is within a defined 'sensitive area' (High Weald AONB), and it exceeds the threshold set out in column 2 to Schedule 2, consideration must be given to the need for EIA.

Guidance for determining whether a proposal is EIA development is provided in National Planning Practice Guidance: Environmental Impact Assessment (revised 28 July 2017) to aid local planning authorities to determine whether a project is likely to have significant environmental effects. This includes 'Annex: indicative screening thresholds' which states are *"indicative only and are intended to help determine whether significant effects are likely"*.

For part 2(e) – surface installation for the extraction of oil/gas the indicative criteria and threshold are the “*development of a site of 10 hectares or more or where production is expected to be more than 100,000 tonnes of petroleum per year.*” Neither of these factors apply in this case, because the site is not in production.

The ‘key issues to consider’ are identified as the “*scale of development, emissions to air, discharges to water, the risk of accident and the arrangements for transporting the fuel.*” In this case, the development site is small in scale, as is the physical development and no further drilling is proposed, nor is hydraulic fracturing proposed. The site is well-screened, is brownfield land, and located between a road and the railway corridor, so although it is in the AONB, the potential for impact on the landscape designation is not considered significant. Emissions to air are controlled through the Environmental Permitting process, and the risk of accident control by the HSE. Should oil begin to flow, crude would require exporting from site. Although there would be some increase in vehicle movements on the local highways over the three year period, it is not considered that this would result in significant environmental impact.

In approving previous applications, it was considered that the development would not result in significant impact on people or the environment. Given the similarities between this proposal and those previously approved, these conclusion are relevant when considering whether EIA is necessary, even when taking into account the increased period of time.

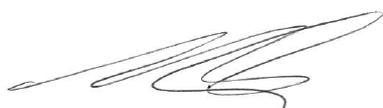
In this case, taking into account the temporary period over which the operations would take place, the small scale of physical development, and the controls in place through the planning and Environmental Permitting regulations, and through HSE, and taking into account the criterial in Schedule 3 of the EIA Regulations, it is considered that the proposal does not have the potential for significant environmental impact within the meaning of the EIA Regulations.

Screening Opinion

In the opinion of the Mineral Planning Authority, the development **would not require an Environmental Impact Assessment.**

Draft Reviewed by:

Signed:

A handwritten signature in black ink, appearing to read "Michael Elkington".

Michael Elkington
Head of Planning Services

Date: 2 August 2019

A handwritten signature in black ink, appearing to read "Chris Bartlett".

Chris Bartlett
Principal Planner

Date: 2 August 2019

Appendix 3 – Community Liaison Group Terms of Reference

Balcombe-2Z 7-Day Flow Test

Community Liaison Group (CLG) Terms of Reference

1 Objective

- 1.1.1 West Sussex County Council ("WSCC") and the Licence Operator (Angus Energy Weald Basin No.3 limited, "Angus Energy" or the "Operator") shall convene a Community Liaison Group ("CLG") to provide a forum for communication between the Operator and interested local parties, including local residents, regarding the flow testing and monitoring operations to take place at the Lower Stumble, Balcombe exploration site.

2 Remit

- 2.1.1 The CLG will provide a forum for two-way dialogue between the Operator and representatives of the local community regarding the testing operations at the site. Meetings will provide CLG members with an opportunity to raise matters with the Operator. In turn, the community representatives will be able to feedback the Operator's responses to the wider community in addition to any direct communication that the Operator may send out.
- 2.1.2 The CLG will seek to provide the following:
- An understanding to the Operator of the views of the local communities in a structured way;
 - An opportunity to further develop the local community's understanding of the operations;
 - A mechanism for the Operator to address comments or concerns relevant to the testing operations raised by the CLG;
 - A mechanism for community representatives to feedback a summary of the CLG's discussions and conclusions to the local community.

- 2.1.3 The CLG will have no decision-making function, its purpose is to facilitate the flow of information between the Operator and the local community and to allow questions and issues to be addressed. CLG members are encouraged to discuss any matters raised at the meetings with other members of the local community and bring their views to the meeting.

3 Membership and recruitment

- 3.1.1 Membership of the CLG for community representatives is voluntary and places will be allocated from the following organisations as per the existing CLG that was convened previously in the Autumn of 2018:

Organisation

County Councillor for Worth Forest (Chair);

Ward Councillors for Ardingley and Balcombe;

Balcombe Parish Council;

Representatives of the local community; and

Licence Operator (Angus Energy).

4 Other attendees

- 4.1.1 The Operator may, with the approval of the Chair, provide additional attendees with technical expertise relevant to the CLG agenda. WSCC will be invited to nominate an officer of the development control team to attend. Industry regulators such as the Environment Agency and the Health and Safety Executive may be invited by the Chair to attend. A representative from Sussex Police may be invited by the Chair to attend the CLG meetings. Lexington Communications, consultants to the Operator will provide secretariat support to the CLG, including arranging the scheduling of meetings.

5 Arrangements for the Chairing of the CLG

- 5.1.1 The role of Chair will be filled by the sitting County Councillor for Worth Forest (to be appointed). In the event that the Chair is unable to attend a meeting of the CLG his/her place to be taken by one of the sitting Ward Councillors for Ardingley and Balcombe or the representative of Balcombe Parish Council.

6 The Role of the Chair

6.1.1 The role of the Chair shall be to:

- chair the meeting impartially and without favour to any member or invited representative;
- ensure that the meeting runs to the allotted two hours per meeting in accordance with Section 11;
- to ensure that each member of the committee is provided an equal opportunity to address the meeting;
- to ensure that all members of the CLG and members of the Operator or other Bodies attending the CLG are afforded normal standards of respectful behaviour in accordance with Section 9
- Agreeing an agenda with all Members for circulation in accordance with Section 11.

7 Recruitment of community representatives

7.1.1 WSCC will be invited to nominate up to four representatives based on application by people who are residing within the Balcombe Parish. Criteria for selection shall include:

- Proximity to the site
- A reasonable gender and age mix
- Representing a range of local opinion

8 Waiting list

8.1.1 Should membership of the CLG become oversubscribed, the contact details of interested parties will be held on a waiting list held by WSCC until space becomes available.

9 Repeated non-attendance and standards of conduct

- 9.1.1 In the event of a member failing to attend two consecutive meetings, their place will be offered to a person on the waiting list or advertised as appropriate. Exceptional circumstances will be given consideration at the Chair's discretion. All participants in the CLG are entitled to normal standards of respectful behaviour from all other CLG members. Any serious or repeated breaches of basic standards of behaviour will result in the termination of CLG membership.

10 Time keeping

- 10.1.1 In order to facilitate the involvement of members of the community with family and other commitments, the duration of each meeting shall be limited to a maximum of two hours.

11 Organisation

- 11.1.1 Meetings will be held on a regular basis (approximately every 4-8 weeks depending on current site operations) with at least one meeting prior to commencement of operations. Meetings will cease approximately 4-8 weeks after the completion of operations.
- 11.1.2 An agenda will be circulated five working days before each meeting and Group members should submit any additional items for discussion to the secretariat at least two working days before the meeting.
- 11.1.3 Minutes shall be kept as a record of the meeting by Lexington Communications. Meeting minutes will be circulated to CLG members within five working days and will be checked for accuracy by members at the next meeting before being approved.
- 11.1.4 The venue for the meetings will be selected by WSCC at a venue reasonably close to Balcombe with due regard to convenience, safety and security of all members attending. The licence Operator will be responsible for the costs of administering the meetings.
- 11.1.5 The meetings shall be closed to members only and those parties listed in section 4. The meetings shall not be open to the media but all documentation in relation to CLG

meetings, including meeting minutes, will be made available online (location to be agreed).

12 Terms of Reference

- 12.1.1 Any changes to these terms of reference must be agreed in writing by WSCC and the Operator.

Appendix 4 – Pollution Prevention



Pollution Prevention Statement

Balcombe 2Z (LR/30-5Z)

Document : 0

Revision No.

Revision Date : 24th September 2019

Controlled : Yes

1 Introduction

- 1.1.1 The Angus Energy Ltd (Angus) management team alongside a number of consultants have proactively inspected the Balcombe wellsite and the existing containment infrastructure. The results of the inspection were reported to the Angus Board of Directors. The overall aim of the well test project is to conduct operations safely, on time, on specification, on budget and to minimise any impact on the environment.
- 1.1.2 Angus are committed to continuous improvement of environmental performance and management and the prevention of pollution from activities we undertake. Angus will comply with all applicable legal and other relevant requirements that relate to our environmental aspects, industry guidelines and, as far as practicable, accepted best practice in environmental management.
- 1.1.3 Angus recognises the need to take due diligent care of all environmental aspects and impacts of its operations, both in the general interest of the environment and for continuous improvement.
- 1.1.4 Angus Board of Directors have made an informed decision to install new containment infrastructure prior to the well test operation adhering to relevant primary and secondary legislation and best industry practice.

2 Construction of the Engineered Site to Prevent Pollution

- 2.1.1 A topographic view of the indicative well test spread is shown in Appendix A. The square grid highlights the area (approximately 60m x 40m) where the containment infrastructure shall be installed.
- 2.1.2 The method of installation shall include the contractor tidying the existing wellsite and releveling to a flat surface. The protective geotextile 300gms shall be laid on top of the stone surface area within the bund. Next a High Density Polyethylene (HDPE) geomembrane liner shall be installed to the protective geotextile. The HDPE geomembrane liner shall be welded and sealed at the seams. The welding of the membrane shall be undertaken by a competent person (i.e. CSWIP Certificate Holder, CSWIP certification schemes are UKAS accredited to ISO/IEC 17024, the international standard for personnel certification). All of the site welds shall be tested using air or spark testing, no heat or flame is produced during testing. Twin Fusion welds (hot

wedge) will be tested by sealing the ends of the air channel then inducing air pressure into the channel via either a testing needle or stopper. Once 2 bar of pressure has been applied and the pressure has been removed the pressure must not decrease by more than 10% in five minutes. Extrusion welds will be tested using spark testing methods. Further details of the installation of the HDPE geomembrane liner system can be found within Appendix B.

- 2.1.3 Sleepers shall be installed around the edge of the perimeter bund. The HDPE geomembrane liner shall then be attached to the sleepers using fixing battens brackets. The four sides of the perimeter bund shall be elevated so that any surface water within the bunded area will be directed into the well cellar. To protect the HDPE geomembrane liner another layer of the geotextile 300gms shall be installed on top of the HDPE geomembrane liner. Lastly, load bearing 70mm thick bog mats (5m x 1m) shall be installed on top of the geotextile for added protection.
- 2.1.4 Load bearing access and egress ramps shall be installed around the perimeter of the bund for work vehicles.
- 2.1.5 The surface water that accumulates within the well cellar shall be disposed of off-site using a suction tanker and transferred to a licensed waste treatment facility.
- 2.1.6 Groundwater is also protected as a result of the specification within the Basis of Design (BOD) at the Planning & Design phase and through implementing the programme of work at the drilling phase. Thus, a combination of steel casing, cement sheaths and other mechanical isolation devices are in-situ as part of the well construction.
- 2.1.7 Any hydrocarbons produced water and spent hydrochloric acid would be stored in separate containers and shall be located within the area of the impermeable membrane.
- 2.1.8 No surface water from the wellsite would be permitted to enter peripheral surface watercourse or discharged directly into local sewers. Furthermore, Angus shall monitor groundwater prior and during the well testing operation and post operations.
- 2.1.9 A well cellar integrity test shall be performed prior to the deployment of the well test spread.
- 2.1.10 Water shall be used as the fluid medium following Angus standard operating procedures.

- 2.1.11 Records of the well cellar integrity test shall be retained within the well file and made available to any internal or external interested party.
- 2.1.12 Installing these measures would seal the well testing area and would prevent any accidental spillage and rainwater from entering the underlying soils, groundwater and local watercourses.
- 2.1.13 The risk of any adverse impact from the well test programme on groundwater and local watercourses is considered highly unlikely.

3 CONTROL AND MITIGATION MEASURES

- 3.1.1 Pollution control would be afforded by the impermeable membrane bunds, which would prevent liquids from penetrating into the soils and groundwater beneath the site or flowing from the site onto adjoining land and watercourses. In addition, spill kits designed for all materials and substances used on site will be held on site to deal with any emergencies that could arise from the well testing operations.
- 3.1.2 Angus also has a site specific Pollution Prevention Plan (audited by the Environment Agency) for use in the unlikely event of a major spillage. A specialist environmental clean-up company is also available on call, should they be required as part of Angus crisis management procedures. Any site staff would receive training and be made aware of their role, responsibilities and accountabilities. The RSK Report on the Drainage Strategy accompanying this planning application also proposes environmental site management and drainage arrangements which would ensure that no potentially significant environmental effects would be likely to arise from the proposed development.

4 COMPLIANCE WITH ONSHORE OIL & GAS SECTOR GUIDANCE

- 4.1.1 Angus shall comply with the latest Environment Agency (EA) publication entitled "Onshore Oil & Gas Sector Guidance" (updated 19 August 2019).
- 4.1.2 Angus shall design and construct the bund as outlined within Section 2 above in compliance with Best Available Technique (BAT) for site containment system. Thus:

- All storage vessels are contained within the bund;
- The bund design shall be either 100% of the largest vessels or 25% of the aggregate capacity of the vessels that it contains, whichever is greater;
- The bund shall be capable of withstanding the hydrostatic head of liquid when full;
- The bund is constructed of a material which is impermeable to crude oil and water;
- A fire risk assessment shall be undertaken for the project in order to support the fire protection plan as required under BSOR 1995, Regulation 7;
- The welded seams shall go through Non-Destructive Testing (NDT) to ensure integrity as part of the site commissioning;
- The welded seams are resistant to crude oil and water and shall be capable of maintaining a seal with thermal expansion and contraction of the bund;
- To protect the HDPE geomembrane liner a protective geotextile and load bearing bog mats shall be assembled on top of the HDPE geomembrane liner so that plant, equipment, pipework, cables or instrumentation do not penetrate the bund walls or floor;
- The modelled lifespan of the impermeable membrane shall comfortably exceed the anticipated life of the project;
- The bunded area shall be manned 24/7 during the course of the well test operation;
- The interceptor valve related to the wellsite drainage system shall be shut during the well test;
- The stock tanks are continuously monitored by Operatives and readings shall be taken using the level indicator and drip readings;
- Radio communication shall be used between well test Operatives and air horns shall be strategically positioned around the bunded area to alert the workforce in the event of an emergency;

- The design of the constructed area shall be elevated at the perimeter to the height of the sleepers so that any accumulated liquid can flow in a downwards direction into the well cellar;
- Angus shall closely follow Best Practice Guidelines publication CIRIA C736 entitled "Containment System for the Prevention of Pollution".

5 SUMMARY STATEMENTS

5.1 Details of the Inspection of the Existing Containment Measures

5.1.1 The inspection of the existing containment infrastructure is now complete. Angus shall install a new containment system prior to the well test operation. All membrane delivered to the wellsite will be accompanied by a Roll Test Data Report showing the results of various tests carried out by the manufactures. Samples of the lining materials shall be taken and sent for independent testing.

5.1.2 As the installation progresses the Supervisor will record all materials placed, roll numbers, panel numbers, seams welded, testing and all records will be recorded onto contractor's installation logs. All of the site welds shall be tested using air or spark testing. No heat or flame is produced during testing. Twin Fusion welds (hot wedge) will be tested by sealing the ends of the air channel then inducing air pressure into the channel via either a testing needle or stopper. Once 2 bar of pressure has been applied and the pressure has been removed the pressure must not decrease by more than 10% in five minutes. Extrusion welds will be tested using spark testing methods.

5.2 Details of any remediation or replacement of the containment measures

5.2.1 If any defects or non-conformities arise associated with the installation of the new containment system, the work programme shall not commence until the issues are fully resolved. Since Angus are using an approved competent contractor to undertake the scope of works the risk level would be highly unlikely.

5.3 Details of containment construction and quality assurance

5.3.1 As stated above, the containment construction shall be based upon BAT and BPG publications such as the EA Onshore Oil and Gas Section Guidance and CIRIA C376. The

highest standard of Quality Assurance (QA) and Quality Control (QC) shall be applied through the lifecycle of the containment infrastructure. The Angus Construction Quality Assurance File (COAF) shall consist of: built design methodology, material records, installation logs and the Competent Person's validation certificate.

5.3.2 Angus promotes an open and transparent dialogue with the onshore regulators. The COAF shall be made available to internal or external interested parties.

5.4 **Details of future inspection and maintenance**

5.4.1 The load bearing bog mats that are used to distribute the load of the well test spread and help protect the HDPE geomembrane liner shall be visually inspected daily for any signs of cracking, movement, bending or shear stress for the duration of the project. The Angus Integrated Management System follows the best practice model Plan-Do-Check-Act (PDCA) and in the event of any defects or NCs a remediation proposal shall be agreed to ensure the containment structure retains its integrity throughout the duration of the project.

6 **CONCLUSION**

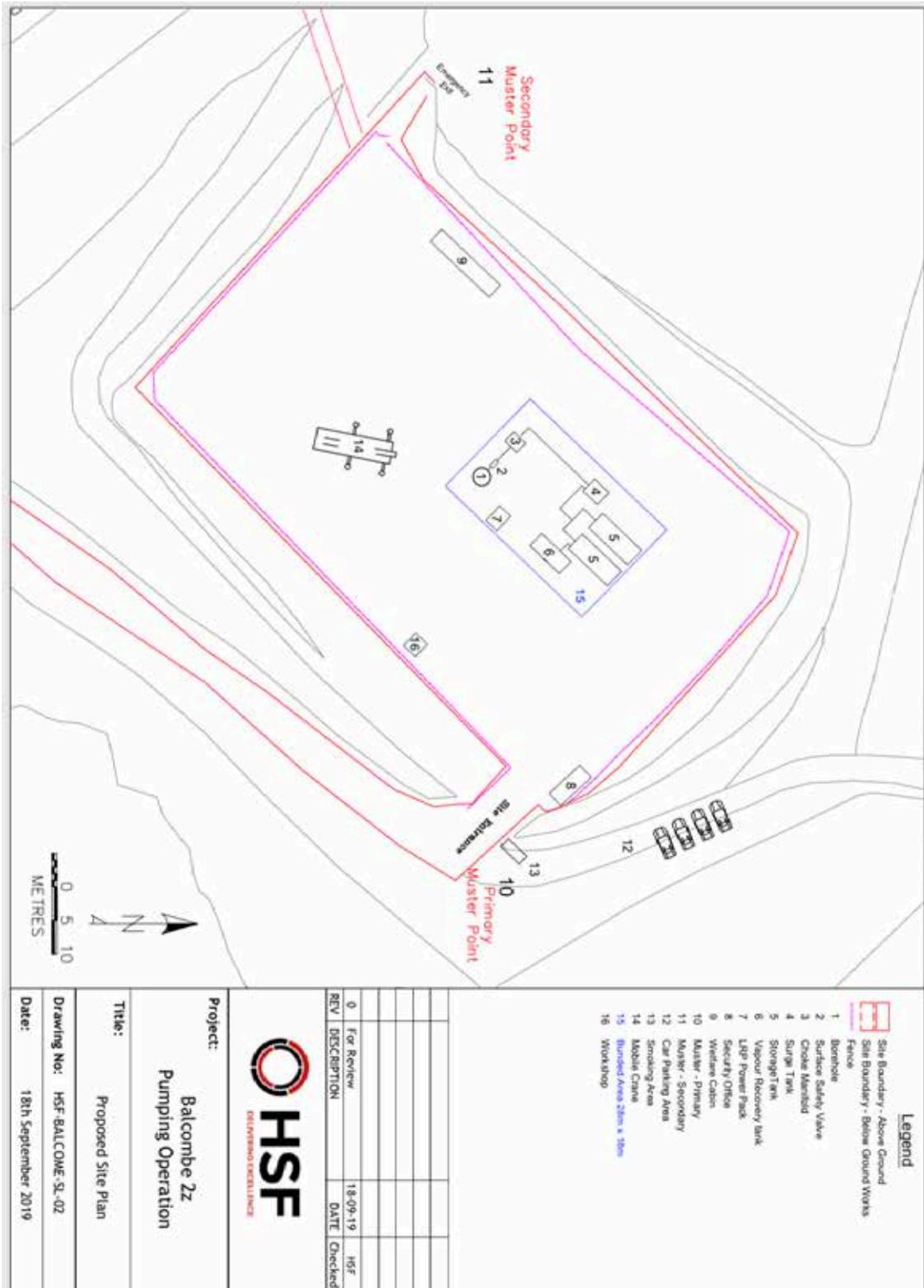
6.1.1 Angus shall proactively engage with the relevant onshore regulators throughout the duration of the project. Angus shall design the bund based upon primary and secondary legislation and following BPG. This Pollution Prevention Statement shall be implemented in full and maintained throughout the course of the well test project.

6.1.2 Angus joint partner CUAD have obtained a Mining Waste Permit EPR/AB3307XD, Radioactive Substances Permit EPR/PB3439DP and the Operator of the project under the Borehole Sites and Operations Regulation (BSOR) 1995, shall maintain records to demonstrate compliance. CUAD has recently applied for an Oil Storage Permit EPRA/AB3307XD/V005 and the application is currently going through the consultation process via the EA. Through the combination of this Pollution Prevention Statement and the control and mitigation measures contained within EA permits the residual pollution risk from the well test programme on groundwater and local watercourses is considered very low.

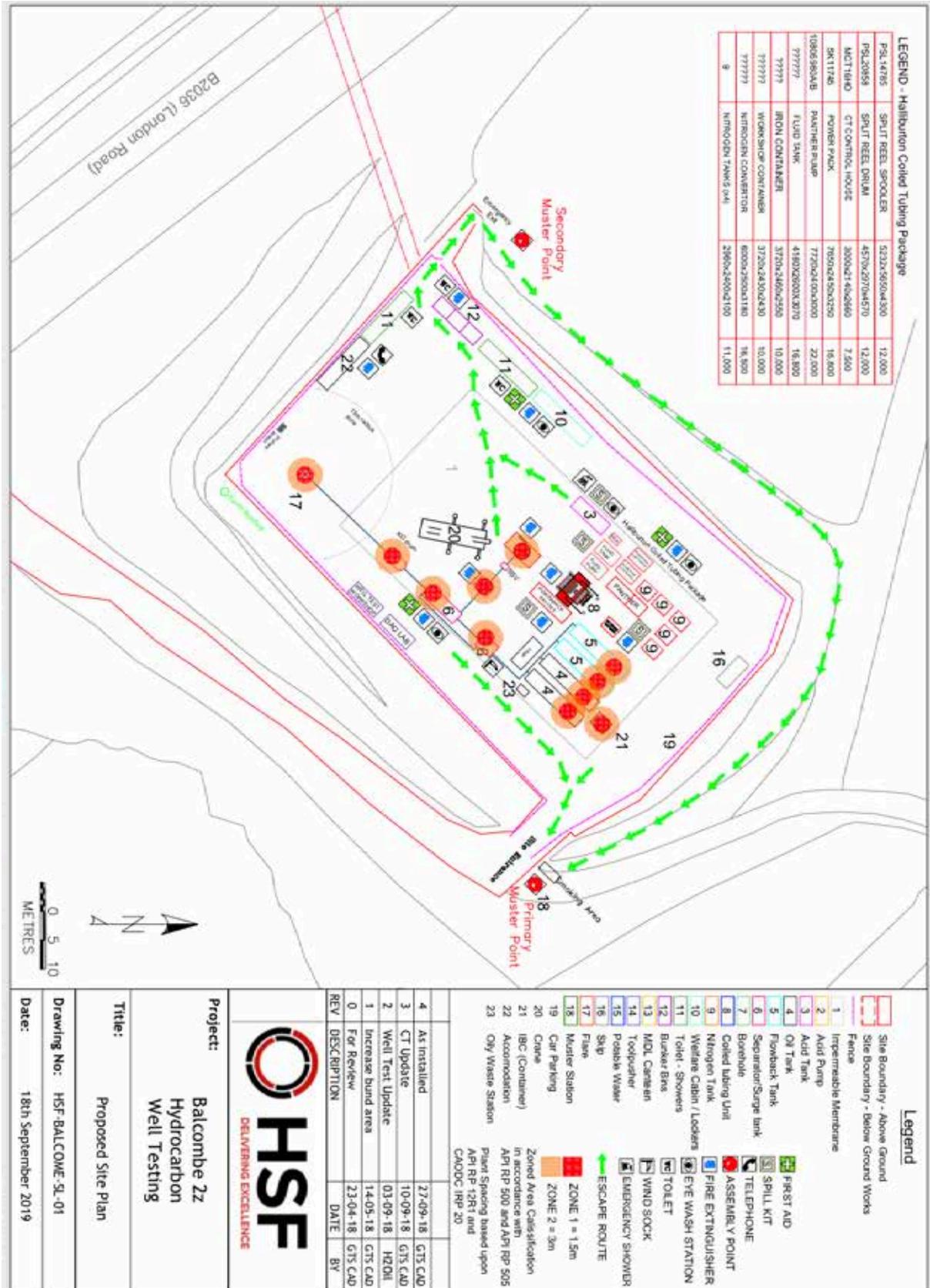
- 6.1.3 The design and construction of the engineered site is consistent with the methodology applied when Balcombe 2Z was drilled back in 2013. The onshore regulators approved the original design of the containment infrastructure.
- 6.1.4 It is worth highlighting the fact that the well test phase's overall pollution risk level would be considered less than that of the drilling phase. The well test spread is an enclosed system and all of the plant and equipment shall be positioned within the bunded area as shown within Appendix A.
- 6.1.5 Angus shall contact the Minerals Planning Authority at the earliest opportunity if there are any changes to this Pollution Prevention Statement. Angus shall only proceed when they have received approval in advance and in writing.
- 6.1.6 It is considered that the above information provides sufficient detail and reassurance that the new site containment infrastructure is appropriate and sufficient, due to the duration of the well test project and the low residual risk.

7 APPENDICES

Appendix A - Proposed Wellsite Layout Diagram: Stage 1



Appendix B - Proposed Wellsite Layout Diagram: Stage 2



Appendix C - Proposed HDPE Installation Methodology

This method statement details our proposed method and work sequence for the installation of lining membranes. The method statement will be explained to site personnel and any other person within the work area prior to commencing work and will be enforced by the Site Supervisor and signature on the back page.

a) MATERIAL, DELIVERY, UNLOADING AND STORAGE

The membrane and Geotextile rolls will be delivered direct from the manufacturer on a curtain sided lorry, the membrane will be complete with two lifting strops per roll to aid unloading and transporting. The Geotextile rolls can be manually rolled on to folk lift tangs.

b) METHOD OF WORKING

PLANT AND EQUIPMENT TO BE USED IN THE INSTALLATION OF MEMBRANES

Petrol generator with 240 volt outlets, fitted with RCDs

Hot wedge fusion welder 240 volt

Extrusion welders. 240 volt

Hot air guns. 240 volt

Hand held sanders. 240 volts

Heavy duty rubber coated cables.

Hand Tools

c) LINER PLACEMENT

The rolls of Geotextile will be positioned so that they can be unrolled manually across the working area, once the desired length of panel is reached then it is cut from the roll, the roll is re-positioned, and the method repeated until the area is covered. The rolls of membrane are attached to the roll out frame which in turn is attached to the telehandler, the roll is then held above ground level so that the roll can spin, the free end of the membrane is manually

pulled from the roll across the working area, once the desired length is reached the membrane is cut from the roll, the roll is re-positioned and the method is repeated until the whole area is covered.

d) LINER PREPARATION PRIOR TO WELDING

The membrane will be placed with the correct seam overlaps. Prior to forming the joints the overlap will be checked to ensure the weld area is clean, dry, and free from imperfections. When extrusion-welding methods are to be employed the seam will firstly be heat bonded and then the surface oxidation will be removed from each side of the joint by sanding.

e) WELDING METHODS

Welding of the membrane will be by certified welding technicians or by trainee technicians under the supervision of a Standard Level CSWIP certificate holder. Two methods of welding will be used: Hot Wedge for the main seams and Extrusion Welding for tie-in details, smaller areas, patching, repairs and more intricate details.

Prior to commencing welding with a machine a test weld will be completed using off cuts of membrane. Tabs will be taken from this weld and tested to destruction using field clamps in both the peel and shear modes. Failure must occur in the parent material and not enter the seam. This start up testing ensures that the welding equipment is set at the correct parameters and the welds being produced are at least as strong as the parent material.

While the installation progresses the installation supervisor will record all materials placed, roll numbers, panel numbers, seams welded, testing. All records will be recorded onto contractor's installation logs.

f) MEMBRANE & SITE TESTING

All membrane delivered to site will be accompanied by a Roll Test Data Report showing the results of various tests carried out by the manufacturer. Samples of the lining materials will be taken and sent for independent testing.

g) NON-DESTRUCTIVE TESTING OF WELDED SEAMS

All site welds will be tested using air or spark testing, no heat or flame is produced during testing.

Twin Fusion welds (hot wedge) will be tested by sealing the ends of the air channel then inducing air pressure into the channel via either a testing needle or stopper. Once 2 bar of pressure has been applied and the pressure has been removed the pressure must not



decrease by more than 10% in five minutes. Extrusion welds will be tested using spark testing methods.

h) ADVERSE WEATHER CONDITIONS

No material installation or seam welding will take place while adverse weather conditions exist. This means rain, strong winds, snow. It is also noted that installation and welding cannot take place if standing water or sloppy formation are present.

i) SAFETY CONSIDERATIONS

Site specific safety induction should be completed by the Main Contractor prior to commencing works.

All emergency procedures to be followed:

Any Transport and Traffic management system set up must be adhered to. All site rules to be complied with by all personnel;

Only certified personnel who hold full and current insurance shall operate mechanical plant;

Only certified personnel will carry out welding procedures; No smoking on site only in designated areas;

Correct PPE must be worn at all times in line with site rules; inclusive of but not limited to Hard Hat, Safety Boots, gloves, Hi Vis Vests/Coats and safety glasses; All specific PPE will be provided by the contractors to its personnel as and when required.