



HORSE HILL
DEVELOPMENTS LTD

Health and Safety Executive
Energy Division
London WC1B 3HF

Copy:

3 October 2018

Dear

Re: Inspection of HHDL's Well Examination Scheme, Your Reference: SVC4382034

Thank you for your letter dated 6th September 2018, following your inspection of our Horse Hill-1 site on 23rd August 2018. We appreciate the guidance that you have suggested.

I hereby reply to your inspection findings as below:

- I. We have performed a risk assessment for the BOP configuration. Regarding the results on stripping operations, I can confirm that:
 - We have concluded that 'annular to annular' stripping is the preferred option during the Horse Hill rig-less interventions. This includes (a) installation of an annular preventer in the BOP assembly and (b) a second spool and annular BOP available on site to install above the first annular, should stripping operations be required. We believe annular to annular stripping is more appropriate for tubing connections that are square edged with a flat upset. This procedure will ensure less damage to the annular elements, which could introduce more problems should the element suffer material damage
 - During the rig-less operations following your visit, the above mentioned equipment was mobilised to site, along with a non return / Gray valve and appropriate work string crossovers

In addition we are introducing an API S53 gap analysis format into our Well Planning, Design and Operations standards for all drilling and intervention operations.

- II. A mud-logging unit will be utilised on all future intervention operations to address kick detection during tripping and circulation operations until there is an alternate solution. We are currently working on procuring Ex-rated ultra sonic or infra red depth sensors for the trip tank and circulating tank, which are the two tanks within the system. However, such a system is not currently available to us
- III. The well handover certificate is an appendix in our Well Planning, Design and Operations Standards. As per your advice, we are updating these. We will incorporate any recommendations from the UKOG Well Lifecycle Integrity Guidelines within the new issue. We plan to complete this by 31st December 2018.
- IV. We can confirm that the wellhead voids are checked as part of our current wellhead integrity checks that have been done on Horse Hill-1 and Markwells Wood-1 wells in 2016 to 2018. In the referenced document, I would point you to Section 2.3 – Inspection Findings, Figures 2.3.9 and 2.3.10, which are the test charts for those wellhead voids and the appended work instruction sections 7 and 8.



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I trust you find the above satisfactory. Please do not hesitate to let me know if you require anything further.

Yours sincerely,

Horse Hill Developments Ltd