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Our Ref: B21114-JNP-XX-XX-L1-G-001/PT Chkd: DRS

Quarters Developments Ltd.,
Coutances Park,
Coutances Way,
Ilkley,
LS29 7HQ

For the attention of Will Yates

08th July 2022

Dear Will

Re: 15 Lower Lark Hill, Cleckheaton – Comments on Environmental Health Response

Further to receipt of the latest comments from the Environmental Health Officer (reference WK/202202473) in relation to the above-named project we have reviewed the comments provided and provide our response below.

It is our understanding that one of the concerns raised is the presence of off-site mine shafts and the potential for these to be a pollution pathway and that that *"no evidence has been submitted that proves that the mine shaft have been capped or treated".* We would note that within the accepted Phase 1 Report undertaken by RB Geotechnical Ltd a Coal Authority Mining Report is included as appendix D which explicitly states that one mine shaft exists within 20m of the site (around 20m north-east of the site), and that it was "located and capped by developers in 1987" (at the bottom of page 4).

The historical maps included in the report show another shaft approximately 50m north-east of the site, but this is not included in the Coal Authority Mining Report because these only include shafts within 20m of the site, so it doesn't specify whether it was capped. However, given its proximity to the shaft that is known to have been capped within 20m of the site, and the fact that both shafts were historically constructed within the same more recent residential development to the north-east of the site, RB Geotechnical have concluded that the second shaft would also have been capped in the same way as the shaft within 20m of the site.

The Phase 1 Report also states in Section 9.2.2 that two historical mine shafts were mapped from approximately 50m to the North- East of the site. They have since been backfilled and have been constructed upon with houses and a road. These mine shafts, although considered a potential off-site source of contamination, are not thought to pose much risk to the actual site (in terms of contamination)".

The conclusions section of the Phase 1 report (Section 10) then goes on to state that "Although historic mine shafts are mapped from approximately 20m from the site, they have been noted as being capped and have been constructed over. These mine shafts are not thought to pose any real risk of contamination to the site. Therefore, no off-site sources of contamination have been identified".

The referenced Phase I Desk Study has been noted within the EHO response as accepted, therefore we did not laterally feel the need to re-state this and we are surprised that this is now been raised as a potential source of

contamination that requires assessment within a Phase II. The idea of a phased approach to a contaminated land risk assessment is to undertake a Phase I, refine the source-pathway-receptor model and if risks remain then investigate these through a Phase II intrusive investigation. The Phase I confirmed the mineshafts offered no real risk of contamination to the site and this was signed off.

Given the above and our previous comments on the low organic content of the made ground and the fact that it has been in place in excess of 35 years, we feel that our recommendation for the inclusion of CS2 gas protection measures is more than adequate to mitigate any potential risk.

Regarding the comment on the Remediation Strategy that the number of samples for the imported material is missing from the report – Section 5.2.1 of our Remediation Strategy states that "in line with the requirements of the NHBC guidance, as the number of plots scheduled for development in this area is between one and five, each imported material used must have a minimum of three tests with a nominal sampling frequency of one test per plot." Assuming any imported soils to be used on the site will be either manufactured soils, or from a greenfield site, the sampling strategy outlined in Section 5.2.1 of our report is the same as the guidance given in the YALPAG document – i.e., a minimum of 3 samples, or between 1 sample per 50m3 and 1 per 250m3; the estimated volume of imported soil required for the site is 270m3 (Section 2.3.2), which suggests that 3 samples, as specified in our report, would be sufficient for the volume of soil being imported.

However, for clarity we can confirm that the remedial verification works will be undertaken in accordance with the YALPAG guidance.

Based on the above we would recommend this is issued to the EHO and you ask that the conditions 7 and 8 are discharged.

Yours Sincerely

Philip Taylor
BSc (Hons) MA CGeol FGS
Associate