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5 May 2021

BY EMAIL
board@coalminesinquiry.qld.gov.au

Ms Renae Kirk
Special Counsel

Queensland Coal Mining Board of Inquiry
Re: Question for Dr Bharath Belle - Fan Pressures Diagram

Dear Ms Kirk

We refer to your letter dated 15 April 2021 requesting answers from Dr Bharath Belle to two questions in relation to fan pressure (**Questions**). The below response is provided directly by Anglo, although Dr Belle has been consulted as part of the preparation of the response.

We are instructed as follows, in relation to the Questions:

(a) The Questions appear to be based on an incorrect assumption, likely based on its appearance in the report of Mr Self at SAN.001.001.0036, that the No. 9 Shaft "*is equipped with two fans in forcing configuration which causes the airflow quantity to be forced into the airway down No. 9 Shaft.*" This is not the case. Rather, the No. 9 Shaft is fitted with bulk air cooling (**BAC**) infrastructure to provide cool air to the longwall face. The 'driver' of the air through the No. 9 Shaft is the main exhaust fan system and the pressure it creates through the mine ventilation network.

(b) Although No. 9 Shaft is fitted with a fan, it is an exhaust fan which is used to provide additional dilution ventilation, to manage gas and diesel particulate matter during the longwall installation phase. Once the longwall is in the production phase, and the fresh air ventilation is flowing into, rather than out of, No. 9 Shaft, that exhaust fan is not in use.

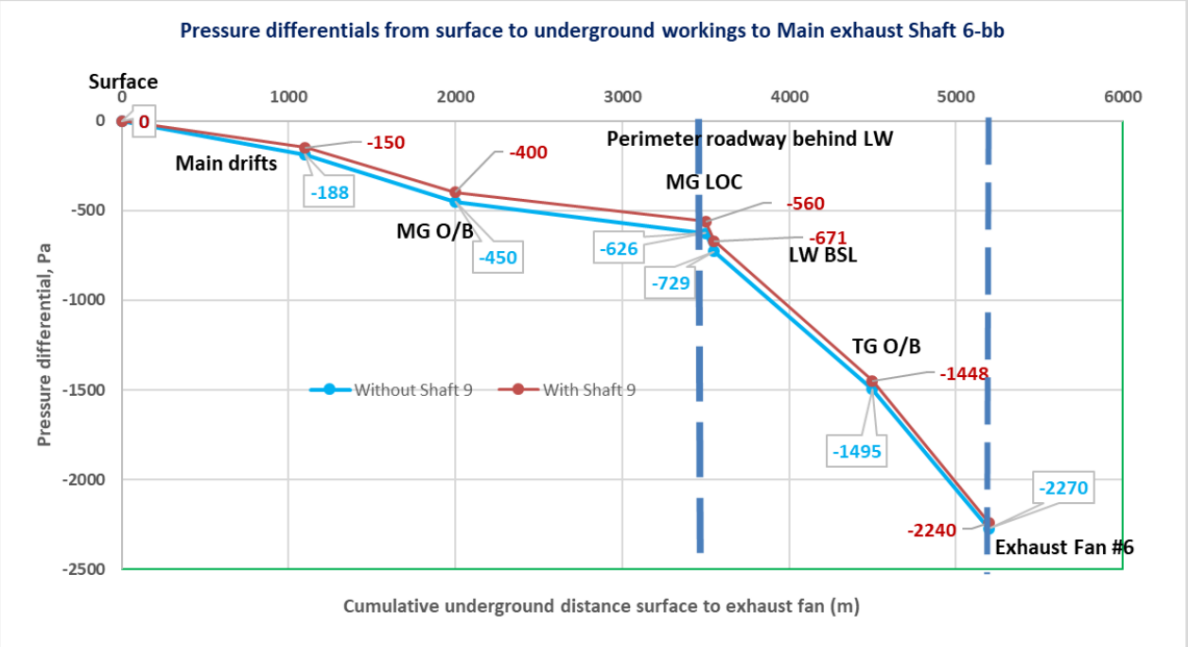
(c) Further, although the pressure readout for the No. 6 Shaft sensor may be positive, exhaust fan pressure should generally be treated as negative (in this case, approximately -2,000 Pascals).

(d) The diagram provided in Question 2 is not correct, for the following reasons:

(i) The internal BAC fans are incapable of producing the airflow or pressure used in the diagram;

(ii) The No. 9 Shaft is not capped (and, in fact, if it were, there would be no airflow through the shaft and correspondingly no static pressure measurement); and

(iii) The No. 9 Shaft is a relatively minor part of the ventilation system which has a negligible effect on the main exhaust fan at No. 6 Shaft. This can be seen from the following graph, which plots the typical pressure drop between the surface and the No. 6 Shaft exhaust fan both with and without the contribution of the No. 9 Shaft.



We hope the above information will be of assistance to the Board.

Should you require any further assistance in relation to the above please contact Meredith Bennett on [redacted].

Yours faithfully

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