Response to IDNR Comment letter of January 7, 2026

A.1 Reporting

The DNR acknowledges the statistical analysis of the data. However, the two times the standard deviation does not follow the statistical methodology requirements set forth in Special Condition 9 of the Beneficial Use Determination (BUD) (Doc #95772). Please submit the proposed statistical methodology on or before February 15, 2026

Statistical Analysis Review

Klingner & Associates, P.C. (Klingner) performed the Shapiro-Wilk test for normality on the existing data sets for the groundwater data collected to date. Data sets with fewer than 3 detections above laboratory reporting limits were not analyzed for normality. When QN is excluded as a background well, the data for the following constituents is normally distributed with a logarithmic transformation: aluminum, COD, chloride, cobalt, iron, magnesium, nickel, ammonia, sulphate, and TSS. For the constituents which are not normally distributed by definition under Shapiro-Wilk, most yielded a W-statistic of at least 0.75, suggesting only minor departures from normality. The exceptions being copper, manganese, molybdenum, and zinc. Copper and zinc each have greater than 50% non-detects. Manganese and molybdenum each have a few significant outliers in the data sets.

We proposed to evaluate the groundwater data using a parametric one-way f-test analysis of variance to determine if there are statistically significant differences in mean concentrations between upgradient and downgradient wells. QN will be excluded as a background well for the analysis. The parametric one-way f-test is reasonably robust to small departures from normality which is believed to be appropriate for the majority of the data for the site.