APPENDIX 5-E SCIENCE BASED ENVIRONMENTAL BENCHMARK (SBEB) DEVELOPMENT PLAN AND SUBMISSION SUMMARY

Blackwater Gold Project Development Plan for Dissolved Aluminum Science Based Environmental Benchmark

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Project No. A599-1

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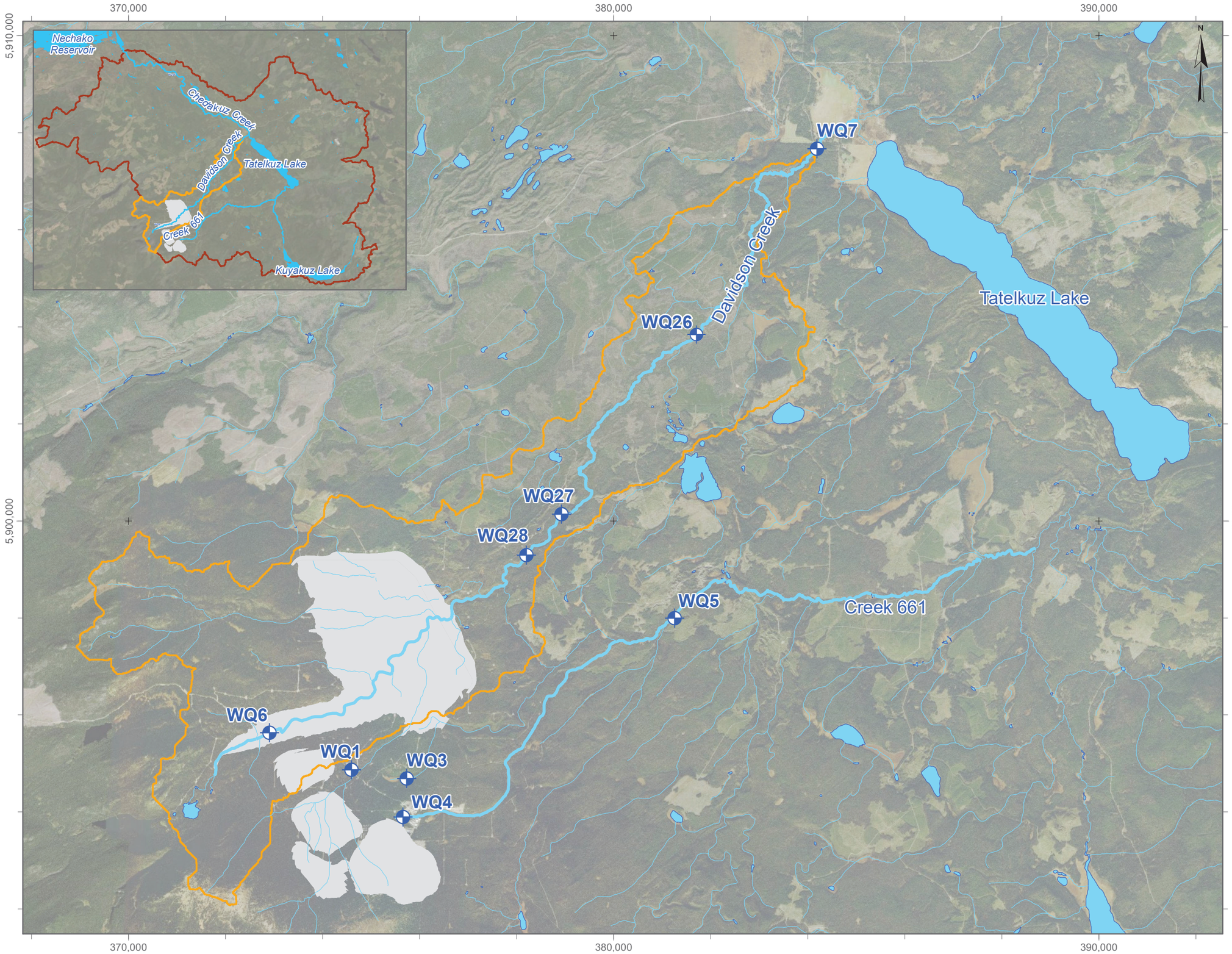
1. Overview

This document presents the development plan for a dissolved aluminum (D-Al) Science Based Environmental Benchmark (SBEB) applicable to aquatic environments for the Blackwater Gold (BW) Project (the Project), owned by BW Gold Ltd. (a subsidiary of Artemis Gold Inc.). Condition 26 of Schedule B of the Environmental Assessment (EA) Certificate (#M19-01) for the Project states that water quality in Davidson Creek and Creek 661 must meet British Columbia (BC) water quality guidelines (WQGs) or approved SBEBs over the course of the proposed mine life. Baseline surface water quality monitoring in the Project area identified concentrations of D-Al routinely above short-term and long-term BC WQGs in Davidson Creek and Creek 661, thus warranting the development of an SBEB for this element.

The Project is a proposed open pit gold mine located on the Nechako Plateau in central BC, approximately 110 km southwest of Vanderhoof and 160 km southwest of the city of Prince George. The mine footprint will mainly occur within two catchments: the headwaters of the Davidson Creek and, to lesser extent, Creek 661 (Figure 1-1).

Creek 661 flows from the north-east side of Mount Davidson into Chedakuz Creek, which flows into Tatelkuz Lake (Figure 1-1). Davidson Creek originates in the summit area of Mount Davidson and reports to Chedakuz Creek downstream of Tatelkuz Lake and upstream of the Turtle Creek confluence (Figure 1-1). From the Davidson Creek confluence, Chedakuz Creek flows north-west and into the Nechako Reservoir, which was created in 1952 through the construction of the Kenney Dam on the Nechako River.

The mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation (STN) and Tsilhqot'in Nation (TN). Other components of the Project, including the existing Kluskus and Kluskus-Ootsa FSRs and proposed transmission line, cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation and Yekooche First Nation (EAO 2019). There are 11 populated reserves in the vicinity of the Project area. The closest reserve to the mine site is LDN Tatelkus Lake #28, located approximately 15 km to the northeast of the mine site. Current use of land and resources for traditional purposes by Indigenous peoples include fishing, hunting, trapping, gathering, and the use of habitations, trails, as well as cultural and spiritual sites (ERM 2020a).



LEGEND

- SWQ Monitoring Location
- Mine Infrastructure Footprint (Aug-08-2020)
- Davidson Creek Catchment
- Chekadusz Creek Catchment

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:75,000

0 2 4 Km

DATE SAVED:	Mar 15, 2021
DRAWN BY:	AL
REVIEWED:	MG
VERSION:	1

CLIENT:

ARTEMIS GOLD INC

LORAX ENVIRONMENTAL

PROJECT:

Blackwater Gold Project

TITLE:

Water quality monitoring stations for Davidson Creek and Creek 661

PROJECT #: A599 *FIGURE:* 1-1

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This development plan has been generated in support of the proposed D-Al SBEB as part of BW Gold Ltd.'s Joint Application for *Mines Act* and *Environmental Management Act* permits (the Joint Application). The checklist associated with the development plan can be found in Appendix A. This plan is organized as follows:

- Section 2 of this plan presents the site characterization and general background information on the environmental fate of D-Al in aquatic environments;
- Section 3 presents the predicted water concentrations for D-Al in selected nodes located within the Project area;
- Section 4 presents the problem formulation and conceptual model for the Project; and
- Section 5, 6 and 7 describe the proposed approach to calculate D-Al SBEBs using the background concentration procedure, including a discussion of uncertainty considerations.

2. Site Characterization and Regulatory Framework

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2. Site Characterization and Regulatory Framework

A description of current conditions for Davidson Creek and Creek 661 is provided in the following sections.

2.1 Davidson Creek

Davidson Creek flows northeast and joins Chedakuz Creek downstream of Tatelkuz Lake, which flows generally northwest, and discharges into the Nechako Reservoir. Davidson Creek is a third order stream with an approximate drainage area of 77 km^2. Aquatic life is identified as the primary water use for Davidson Creek. Other water uses include wildlife, drinking water (limited to recreational/traditional use [*e.g.,* occasional fishing, hunting, trapping, or gathering]), and agricultural use, the latter of which is limited to the lowest reach of Davidson Creek near its confluence with Chedakuz Creek. Forestry has also occurred throughout the catchment.

Fish habitat quality is ranked as high for most of Davidson Creek (AMEC 2013a). The upper reaches of Davidson Creek are dominated by fast-flowing runs, with low suitability for spawning and rearing of juvenile fish. The middle section of the creek is generally characterized by riffle and fewer pools compared to those present in the lower sections and isolated spawning areas. The lower sections of the creek show a riffle-pool morphology, with flows and suitable substrate that provide high-quality fish habitat. The presence of large woody debris also provides high-quality rearing habitat for juvenile fish in the lower reaches. Twelve fish species have been observed within the Project area, with rainbow trout (*Oncorhynchus mykiss*) and kokanee salmon (*Oncorhynchus nerka*) as the most relevant species for Davidson Creek (AMEC 2015). No endangered, threatened, or vulnerable fish species were identified.

Periphyton and benthic invertebrate communities in Davidson Creek are typical of the region and corresponding reference locations. Periphyton density and distribution show interannual and spatial variation, with relatively lower values observed in lower Davidson Creek compared to upper stations during baseline monitoring (AMEC 2015). Most communities are dominated by diatoms and cyanobacteria with the presence of some green algae (chlorophytes) in mid reaches of Davidson Creek (AMEC 2015). Benthic invertebrate community metrics similarly exhibit interannual and spatial variation, but generally contain typical, representative taxa (*e.g.*, ephemeroptera, plecoptera, trichoptera (EPT taxa), chironomidae) (AMEC 2015). Benthic communities are affected by differences in altitude, stream width, the amount of periphyton, and substrate between

monitoring stations located between the upper reaches of Davidson Creek compared to lower sections of the creek.

Davidson Creek sediments were dominated by large particle sizes composed mainly of gravel and sand with small percentage of silt and clay. Metal concentrations in samples collected within the Project area showed similar metal concentrations to those observed in the region. Exceedances of applicable sediment guidelines represent natural signatures and included arsenic, cadmium, manganese, nickel and zinc within the Davidson Creek watershed (AMEC 2013b).

With respect to water quantity and quality, surface flows in the study area are influenced by the regional climate characterized by brief, warm summers and long cold winters. Peak stream flows occur in May, with low flows observed in February and March (annual hydrograph at hydrometric station H4B (water quality station WQ26) shown in Figure 2-1). Late summer and fall flows are defined by intermittent rain events.

Several baseline surface water quality monitoring stations have been established in Davidson Creek, including WQ1, WQ6, and WQ10 in the upper reaches, and WQ28, WQ27, WQ26, and WQ7 in the mid- and lower-reaches. Water quality is generally characterized by circum-neutral to slightly alkaline pH, and very soft to moderately soft water hardness. Concentrations of major ions and trace elements are typically low, although dissolved organic carbon (DOC) and total metal concentrations respond to the annual hydrograph showing increases in conjunction with higher flows and total suspended solids (TSS) during freshet (ERM 2020b).

Dissolved Al concentrations are notably elevated for several months of the year. Mean D-Al concentrations for all Davidson Creek stations downstream of the proposed Project footprint (WQ28, WQ27, WQ26 and WQ7) exceed the long-term BC WQG, and corresponding 95th percentiles for all stations exceed the short-term BC WQG (Table 2-1; Appendix B). Other stations established upgradient of WQ28 on Davidson Creek (*e.g.*, WQ1, WQ6, and WQ10) will be engulfed by Project components and are therefore omitted from this analysis.

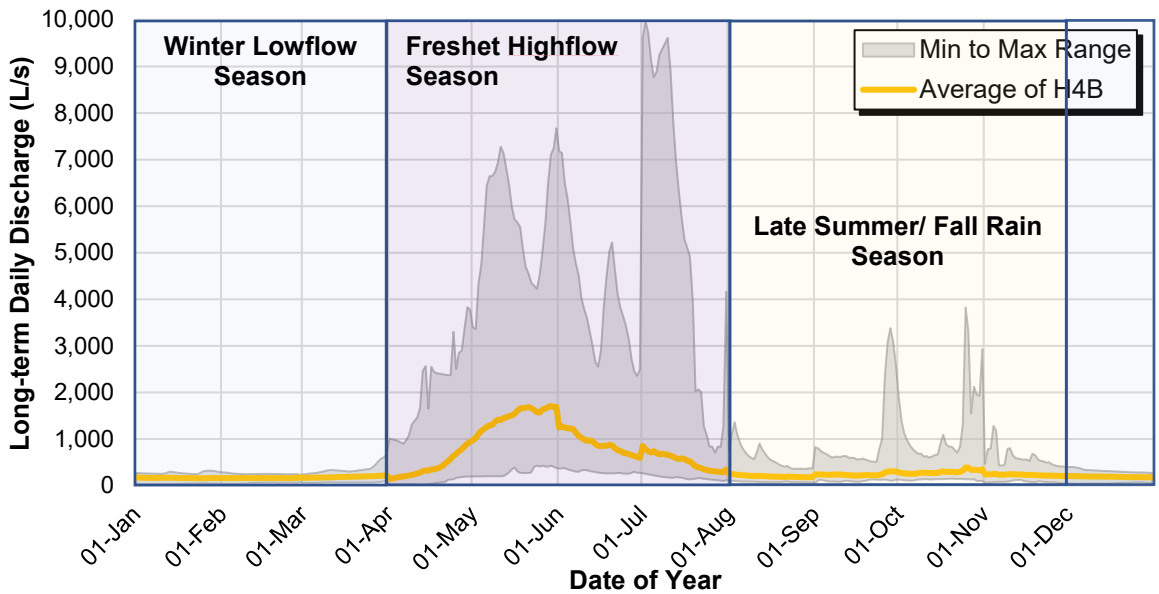

Figure 2-1: Davidson Creek mean, minimum, and maximum annual flows for water quality station WQ26 (hydrology station H4B) during winter low flow (blue shading), freshet high flow (purple), and late summer flow (yellow shading). Source: Knight Piesold (2021)

Table 2-1:
Davidson Creek descriptive statistics for dissolved aluminum concentration and pH at stations located downstream of the proposed Project footprint.

Station	Number of Samples	D-Al (mg/L)				pH (pH units)		D-Al BC WQG (mg/L)	
		Min	Mean	95th P	Max	Min	Max	Short-term	Long-term
WQ28	62	0.011	**0.086**	**0.24**	**0.28**	7.0	8.0	0.05	0.10
WQ27	74	0.002	**0.074**	**0.20**	**0.29**	7.1	8.1	0.05	0.10
WQ26	85	0.005	**0.066**	**0.19**	**0.24**	7.1	8.1	0.05	0.10
WQ7	123	<0.002	**0.055**	**0.17**	**0.33**	6.9	8.1	0.05	0.10
All stations	344	<0.002	**0.067**	**0.20**	**0.33**	6.9	8.1	0.05	0.10

Notes:
BC WQG = British Columbia water quality guidelines for aquatic life. Guideline is pH-dependent below pH of 6.5.
D-Al = Dissolved aluminum
95th P = 95th percentile statistic
Bold values exceed the long-term BC WQG; shaded values exceed the short-term BC WQG

Statistics for pH at the same stations are shown for context in Table 2-1 owing to the pH dependence of the BC WQG for D-Al for ambient pH values below 6.5. Recorded pH values remained above 6.5 at all stations on Davidson Creek within the monitoring record. On average, D-Al concentrations tend to be higher at stations located in the upper sections

of the catchment (*e.g.*, WQ28 and WQ27) compared to those located in lower sections (WQ26 and WQ7).

The seasonal signature for D-Al concentrations at all stations resembles the annual hydrograph, with annual maxima and minima occurring during spring (or early summer) and winter low-flow periods, respectively (Figure 2-2). Such observations relate to the fact the "dissolved" Al inventory is predicted to be present as colloidal $Al(OH)_3$, and hence concentrations of filterable Al will be predicted to increase in response to increased flow and associated turbidity. Secondary concentration peaks occur during late summer through to early winter, attributed to fall precipitation events.

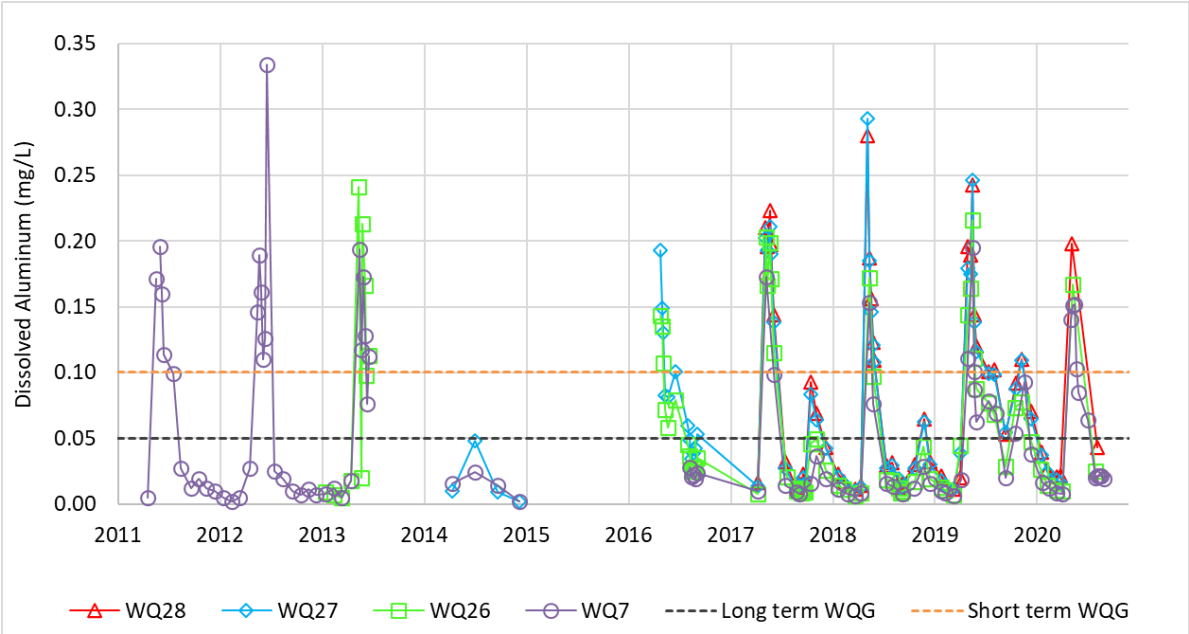

Figure 2-2: Davidson Creek dissolved aluminum concentrations at stations WQ28, WQ27, WQ26, and WQ7 from 2011 to 2020. British Columbia long-term and short-term water quality guidelines (WQG) for aquatic life shown as dashed black and orange lines, respectively.

2.2 Creek 661

Creek 661 is a third-order tributary that flows in a north-easterly direction toward Tatelkuz Lake. The creek discharges to Chedakuz Creek upstream of Tatelkuz Lake. Creek 661 is a third order stream with an approximate drainage area of 67 km^2. Aquatic life is identified as the primary water use for Creek 661. Other water uses in the creek include wildlife and drinking water (in the case of occasional fishing, hunting, trapping, or gathering). Forestry has also occurred throughout the catchment.

Stream morphology and habitat in Creek 661 are reasonably similar to conditions in Davidson Creek. Lower sections of Creek 661 are characterized by riffle-pools representing good quality fish habitat, including spawning gravels for rainbow trout and kokanee. However, baseline monitoring surveys recorded limited overwintering habitat (AMEC 2013a). Similar to Davidson Creek, the most abundant fish species present in the creek recorded in baseline surveys were rainbow trout and kokanee.

Periphyton and benthic invertebrate communities in Creek 661 are typical of the region and corresponding reference locations. The highest mean periphyton densities and biomass measured in the Project area baseline surveys occurred in Creek 661, specifically in the upper sections (AMEC 2013a). The benthic invertebrate communities were similar to those in Davidson Creek, with generally moderate productivity. Creek 661 sediments were dominated by large particle sizes composed mainly of gravel and sand with small percentage of silt and clay. Metal concentrations in samples collected within the Project area showed similar metal concentrations to those observed in the region. Exceedances of applicable sediment guidelines are considered a natural occurrence and were observed for arsenic, cadmium, iron, manganese, mercury silver and zinc (AMEC 2013b).

Baseline surface water quality monitoring stations established in Creek 661 include WQ4 and WQ3 in the upper reaches, and WQ5 mid-reach. For the purpose of this analysis, it is assumed WQ4 will be engulfed by Project components, while WQ3 and WQ5 will represent the receiving environment. Similar to Davidson Creek, surface water quality in Creek 661 is characterized by circum-neutral to slightly alkaline pH, and soft water (ERM 2020b). Concentrations of major ions and most trace elements are low, while concentrations of TSS, DOC and certain total metals increase in conjunction with spring freshet.

Dissolved aluminum concentrations are elevated in several months of the year. The mean D-Al concentrations for stations WQ3 and WQ5 in Creek 661 exceed the long-term BC WQG, and corresponding 95th percentiles for both stations exceed the short-term BC WQG (Table 2-2; Appendix B). The pH for both stations has remained above 6.5 over the monitoring period (Table 2-2).

Table 2-2:
Creek 661 - Descriptive statistics for dissolved aluminum concentration and pH for stations located downstream of the proposed Project footprint.

Station	Number of Samples	D-Al (mg/L)				pH (pH units)		D-Al BC WQG (mg/L)	
		Min	Mean	95th P	Max	Min	Max	Long-term	Short-term
WQ3	57	0.003	**0.055**	**0.15**	**0.20**	7.0	7.9	0.05	0.1
WQ5	57	0.019	**0.12**	**0.25**	**0.38**	6.8	7.8	0.05	0.1
All Creek 661	114	0.003	**0.088**	**0.22**	**0.38**	6.8	7.9	0.05	0.1

Notes:
BC WQG = British Columbia water quality guidelines for aquatic life. Guideline is pH-dependent below pH of 6.5.
D-Al = Dissolved aluminum
95th P = 95th percentile statistic
Bold values exceed the long-term BC WQG; shaded values exceed the short-term BC WQG

As observed for Davidson Creek stations, the seasonal signatures of D-Al at WQ3 and WQ5 closely mirror the annual hydrograph, with annual maxima and minima occurring during spring (or early summer) and winter low-flow periods, respectively (Figure 2-3). Dissolved Al concentrations routinely occur above the BC short-term guideline in May and June, and above the BC long-term guideline during the late summer/fall period at WQ5 and less frequently at WQ3.

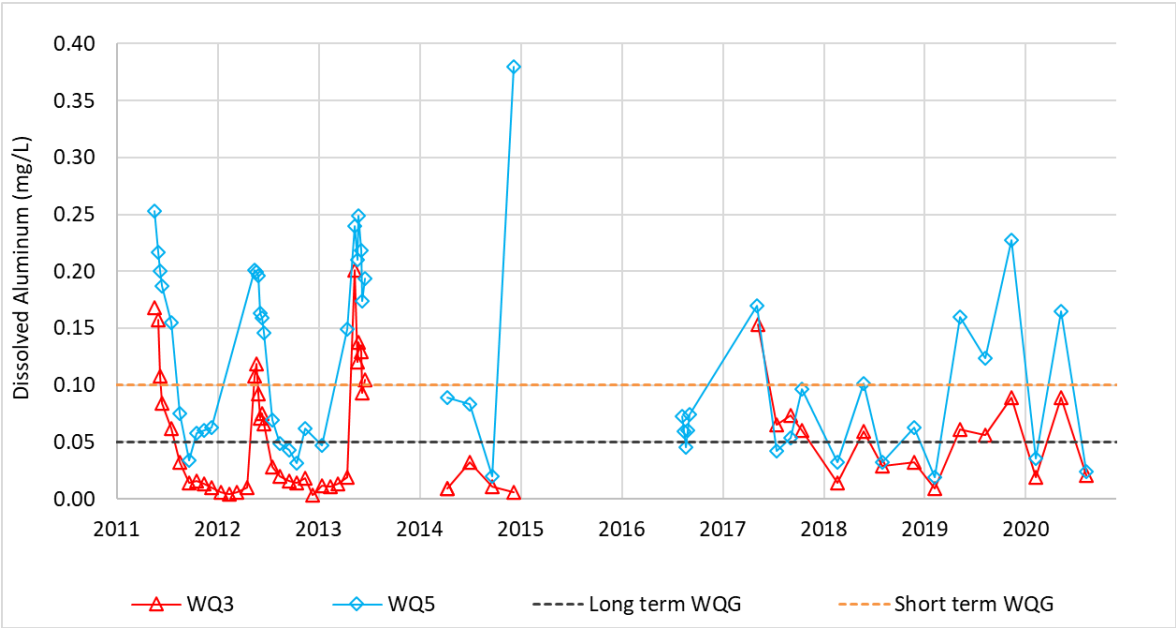

Figure 2 3: Creek 661 - Dissolved aluminum concentrations at stations WQ3 and WQ5 from 2011 to 2020. British Columbia long-term and short-term water quality guidelines (WQG) for aquatic life shown as dashed black and orange lines, respectively.

2.3 Regulatory framework

The BC WQG for Al applies to the dissolved metal fraction (Ministry of Environment and Climate Change Strategy Province of British Columbia [BC ENV] 2001). The long-term and short-term guidelines for D-Al are 50 µg/L and 100 µg/L, respectively, for water bodies with pH values greater than or equal to 6.5 (BC ENV 2001). At pH values less than 6.5, both guidelines are lower and pH dependent. Additional WQGs for Al applicable to the Project include drinking/aesthetics (9.5 mg D-Al/L; BC ENV 2020), and wildlife/livestock/irrigation (5 mg T-Al/L) (BC ENV 2001).

2.4 Aluminum in Aquatic Environments

Aluminum is highly abundant in the Earth's crust, resulting in high soil enrichment in the form of aluminosilicate minerals and hydroxides that subsequently enter aquatic systems through weathering processes. In circumneutral aquatic environments, the solubility of D-Al is largely controlled by the formation of colloidal $Al(OH)_3$. D-Al also readily forms complexes with elements such as chloride, fluoride, sulphate, nitrate, phosphate, and negatively charged compounds such as organic acids and clays, thus decreasing its toxicity (ATSDR 2008). Dissolved organic carbon is also known to be an important toxicity modifying factor due to its influence on the complexation of Al, this allows waters with high organic content to be suitable for fish even at high Al concentration and low pH (BC ENV 2001).

In low-pH waters (<6), the solubility of Al increases, thus increasing its potential toxicity (Canadian Council of Resource and Environment Ministers [CCREM] 1987). It has also been demonstrated that hardness can act as a modifying factor in moderately alkaline water (Gundersen *et al.* 1994). However, the influence of hardness on Al toxicity at pH values > 6.5 is uncertain. Aluminum does not biomagnify through the food chain, and tissue accumulation greatly depends on the presence of complexation agents (BC ENV 2001). However, accumulation of Al in biota tissues is considered generally low (ATSDR 2008).

Relative to other elements of concern commonly associated with metal mining in BC, the toxicity of aluminum to aquatic receptors at circum-neutral pH is relatively low. For the purpose of this plan, a review of Al chronic toxicity to aquatic organisms was conducted based on available toxicological literature under conditions at pH ≥ 6.5, as the receiving environment for the Project is characterized by circumneutral pH. Differentiation of T-Al or D-Al exposures in reported studies was included when available.

An effect concentration of 520 µg/L for a 44-day growth endpoint for rainbow trout fingerlings exposed to D-Al was reported by Freeman and Everhart (1971). Aluminum appears to have no effect on egg fertilization, but mortality was observed during egg

maturation at T-Al concentrations of 5,200 µg/L (Freeman and Everhart 1971). For invertebrates, mortality occurred in second and third instar chironomid *Tanytarsus dissimilis* larvae after 55 days of exposure to an Al concentration of 800 µg/L (pH 6.8; [Lamb and Bailey, 1981]). However, other authors reported no effect in several chironomids species exposed to Al concentrations ranging from 200 to 20,000 µg/L even at pH values lower than 6.5 where Al is expected to be in free form and thus, more toxic (CCREM 1987). *Daphnia magna* showed mortality and reproductive impairment after three weeks of exposure at Al concentrations of 1,400 µg/L and 320 µg/L, respectively (pH 7.7) (CCREM 1987). Schofield and Trojnar (1980, as referenced in CCREM 1987) reported reproductive impairment in *D. magna* at Al concentrations of 680 µg/L (pH 6.5-7.5).

While primary producers generally represent one of the most sensitive taxa to Al at circumneutral pH, toxicity of this element to aquatic plants and algae is highly variable, and generally due to the development of tolerance in exposed plants (CCREM 1987). A reduction in root growth was reported for *Myriophyllum spicatum L*. at an Al concentration of 2,500 µg/Land a circumneutral pH (Stanley 1974). For *Selenastrum capricornutum,* biomass reduction was reported at T-Al concentrations of 570 and 460 µg/L and pH of 7.6 and 8.2, respectively. The algae also showed reduced growth after 14 days of exposure to 990 µg/L at pH 7. A 96-hour growth inhibition was reported for *Scenedesmus quadricauda* exposed to 1,500 µg/L (pH 7.5-7.8) (CCREM 1987). Decreased photosynthetic activity in algae at Al concentrations of 380 µg/L were reversed by addition of organic ligands (CCREM 1987). Growth inhibition was reported in *Chlorella vulgaris* and *Cyclotella meneghiniana* after exposure to Al concentrations of 4,000 µg/L (at pH 7) and 810 µg/L (at pH 8), respectively (BC ENV 2001).

3. Water Quality Model and Predictions

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3. Water Quality Model and Predictions

Aluminum concentrations resulting from the proposed Project were predicted using a site-wide water quality model developed in support of the Application. The water quality model incorporates a life of mine (LOM) water balance model (WB), describing anticipated conditions at the Project over a 125-year period, developed by Knight Piesold (Appendix 5-B of the Joint Application). Coupled to this WBM and encoded within a GoldSim modelling framework, Lorax developed a site-wide water quality model (WQM) for the Project (Appendix 5-D of the Joint Application). Outputs from the Water Balance/Water Quality Model (WB/WQM) provide quantitative estimates of changes to water quality conditions resulting from proposed activities at the property.

Consistent with the LOM WBM, the assumed timing and duration of the Project phases in the site-wide WQM are as follows:

- Baseline (Year -17 to Year -3);
- Construction (Year -2 and -1);
- Operations (Year 1 to Year 23);
- Closure (Year 24 and extending until Project waters discharge naturally via the Closure Spillway of the TSF to Davidson Creek and the Pit Lake has reached its target elevation); and
- Post-Closure, which is the period extending from end of Closure, into perpetuity.

Water quality predictions were generated for several mine site and receiving environment modelling nodes within the Project area (Appendix C). Receiving environment node locations were selected to be consistent with baseline monitoring locations where possible, including WQ28, WQ27, WQ26, and WQ7 in Davidson Creek, WQ5 in Creek 661, and WQ8, WQ9, and WQ13 in Chedakuz Creek. Additional nodes were added to the base of Creek 661 ("WQCk661" node), and at two far-field locates in Chedakuz Creek ("Chedakuz Midway" and "Chedakuz Outlet") to ensure adequate spatial coverage of model predictions. Further detail on the WB/WQM architecture and inputs is presented in Section 5.4 and Appendix 5-D of the Joint Application.

Results from the water quality model predict that during Project construction and operations, Project activities are not expected to measurably increase D-Al concentrations in the receiving environment, such that mitigations to specifically address D-Al are required. However, occasional exceedances of applicable water quality guidelines are anticipated due to natural variability (*e.g.*, Figure 5-1 and Figure 5-2). There is also

potential for exceedances of the BC WQG from January 1 to March 31 (during which no SBEB is proposed) in the event of a late-winter warming period or early spring freshet. Further detail on WB/WQM predictions for D-Al, and other parameters, is presented in Appendix 5-D of the Application.

4. Problem Formulation and Conceptual Model

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4. Problem Formulation and Conceptual Model

4.1 Problem Formulation

The first steps of deriving an SBEB (BC ENV 2016) include the completion of a problem formulation and conceptual model. The purpose of the problem formulation is to identify:

1) Applicable Parameters of Potential Concern (POPCs) in the baseline dataset;
2) Receptors of concern, defined as organisms that may be affected by POPC exposure; and
3) Exposure pathways which evaluate the operable transfer mechanisms of POPCs from sources to organisms.

These three components were integrated into a conceptual model that identifies operable pathways of POPC exposure through relevant environmental media to receptors. This forms the basis to evaluate potential effects to people and/or organisms within the Project area. The following problem formulation is intended to define the scope and applicability of the derived SBEBs for the Project.

4.1.1 Study Area

For the purpose of the problem formulation exercise, the study areas are focused on two drainage systems: Davidson Creek and Creek 661. The study areas are the same as those delineated for the aquatic baseline program and are consistent with the LSA described in the Environmental Certificate Application (AMEC 2015).

Aquatic life represents the primary sensitive water use in these creeks. The creeks are also currently used for a mixture of recreational-related and subsisting (*e.g.*, fishing, hunting) purposes. Creeks can be accessed by First Nations, general public and/or wildlife. The local topography of the area bounding the creeks consists of forested, mountainous terrain with the ground surface covered by natural vegetation.

On-site mine components and Project infrastructure such as stockpiles, sediment ponds, tailing storage facilities, water management structures, and mine camp are excluded from this assessment as they are considered inaccessible to the general public and expected to have low probability of interactions with wildlife due to unsuitable habitat conditions (*e.g.*, noise, traffic and high presence of mine-workers). Therefore, the problem formulation exercise mainly focuses on the two receiving aquatic environments, Davidson Creek and Creek 661.

4.1.2 Parameters of Potential Concern

Parameters of potential concern were identified by comparing baseline measured concentrations in water at stations in Davidson Creek and Creek 661 to applicable BC WQGs. If measured concentrations of a substance exceeded the regulatory criteria, then the substance was identified as a POPC and carried forward for further consideration of an SBEBs.

Background concentrations of D-Al are naturally elevated in the Project area, specifically in Davidson Creek and Creek 661 (see Section 2.1 and 2.2). Dissolved Al concentrations at monitoring stations located in Davidson Creek and Creek 661 routinely show values above the BC WQGs for several months of the year (Appendix B). These exceedances are driven by background sources, rather than mine-related effects. D-Al was the only identified POPC for the Project and for which a site-specific benchmark (*i.e.,* SBEB) is proposed based on background values. Although other parameters sporadically exceeded WQGs in the baseline dataset, SBEB derivation using the background concentration procedure is not justified. The focus of the problem formulation is therefore applicable to background sources of D-Al that may be transported into the aquatic and/or terrestrial environments.

4.1.3 Receptors of Concern

The objective of the receptor screening process is to identify taxa present within the Project area with operable exposure pathways and/or routes by which exposure to D-Al may occur. The Project is not expected to contribute a measurable D-Al load to Davidson Creek or Creek 661. Therefore, the problem formulation focuses on D-Al exposure due to background sources, including releases from weathering and erosion, runoff and atmospheric deposition (*e.g.,* dust). Four main groups (aquatic, wildlife, terrestrial plants and humans) are expected to occur within the study area and are thus identified as receptors of potential concern. A description of these receptors is provided in the following sections.

4.1.3.1 Aquatic Receptors

According to Canada's *Species at Risk Act* (SARA) and the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), there are no threatened (or endangered) fish, plankton, semi-aquatic plants, and/or aquatic invertebrate species present in Davidson Creek and Creek 661, based on sampling completed to date (AMEC 2015). For amphibians, one provincial species at risk was identified (western toad [*Anaxyrus boreas]*) which can potentially occur in the Project area (AMEC 2015). Amphibians spend early life stages in the aquatic environment before transitioning into terrestrial adult forms. Therefore, it is assumed that early life stages in aquatic environments are the most relevant

and sensitive forms to evaluate the potential toxicity of D-Al. It is not possible to directly assess the risk for each individual species; therefore, the ecosystem is divided into four major components considered to be representative of the entire ecosystem: aquatic primary producers, invertebrates, fish and amphibians. Ecosystem components and aquatic receptors of concern selected for this problem formulation are shown in Table 4-1.

Table 4-1:
Aquatic Receptors for the Blackwater Gold Project

Ecosystem Component	Receptor
Aquatic Primary Producers	Periphyton (*e.g.*, diatoms and cyanobacteria); semi-aquatic plants (*e.g.,* shore sedge)
Aquatic invertebrates	Benthic invertebrate communities (*e.g.*, crustaceans, insects)
Fish	Primarily represented by rainbow trout (*Oncorhynchus mykiss)* and kokanee (*Oncorhynchus nerka*) and relevant small-bodied fish populations (*e.g.,* burbot [*Lota lota*])
Amphibians	Western toad (*Anaxyrus boreas*)

4.1.3.2 Terrestrial Plants Receptors

Two biogeoclimatic zones occur within the proposed Project, the Englemann Spruce – Subalpine Fir Zone and the Sub-Boreal Spruce Zone. Ecosystem components in the Project include riparian, old growth forest, and sparsely vegetated areas. The area is also characterized by the presence of wetlands, such as wet bogs, fen wetlands, marsh wetlands, swamp wetlands, shallow waters, and ponds. Five plant species at risk were documented within the Project area: whitebark pine (*Pinus albicaulis*), meesia moss (*Meesia longiseta*), sickleleaf tomentypnum moss (*Tomentypnum falcifolium*), small-flowered lousewort (*Pedicularis parviflora* subsp. *parviflora*) and swollen beaked sedge (*Carex rostrata*).

4.1.3.3 Wildlife Receptors

SARA-listed species in the Project area included: yellow rail (*Coturnicops noveboracensis*), long-billed curlew (*Numenius americanus*), short-eared owl (*Asio flammeus*), olive-sided flycatcher (*Contopus cooperi*), rusty blackbird (*Euphagus carolinus*), and caribou (*Rangifer tarandus*). A functioning ecosystem involves interaction of multiple species, and each species responds differently to POPC exposure. It is not possible to directly assess the risk for each individual species; therefore, the ecosystem is divided into three major components considered to be representative of the entire ecosystem: soil biota, avian and mammalian. Ecosystem components and wildlife receptors of concern selected for this problem formulation are shown in Table 4-2.

Table 4-2:
Wildlife Receptors for the Blackwater Gold Project

Ecosystem Component	Receptor
Soil Biota	Soil invertebrates (*e.g.*, earthworms)
Mammalian	Caribou, moose (*Alces alces*), grizzly bear (*Ursus arctos horribilis*), relevant small mammals (*e.g.,* shrews, otters)
Avian	Water birds (*e.g.*, herons, loons), forest and grassland birds (*e.g.*, owls), bats

4.1.3.4 Human Receptors

This section focuses on potential risks to the general public (both Indigenous and non-Indigenous people) and does not include workers' health and safety which is covered by regulatory standards under the Health, Safety and Reclamation Code for Mines in BC (British Columbia Ministry of Energy, Mines and Low Carbon Innovation [BC EMLI] 2021). In regards to the land uses, there are 11 populated reserves in the vicinity of the Project area with LDN Tatelkus Lake IR #28 identified as the closest reserve to the Project (~15 km northeast of the Site). Designated recreational and culturally significant sites are in the vicinity of the Project area (*e.g.*, Top Lake South, situated approximately 8 km northwest of the mine site at Top Lake; Messue Horse Trail/Kluskus Bypass [~ 20 km form the Project]). It could be assumed then that Davidson Creek and Creek 661 areas have the potential to be used by the general public of all ages for recreational/subsistence activities. Indigenous and non-Indigenous people are assumed to be present transiently (*i.e.*, short periods of time) in the area for recreational or subsistence/recreational (*e.g.*, hunting, fishing, plant collection) purposes which may also include the transient use of surface water as a drinking water source. Therefore, temporary site users were retained as receptors including, adults and children of all ages.

4.1.4 Exposure Pathways Analysis

The pathway screening process is aimed to identify potential routes by which receptors and people could be exposed to relevant POPCs. A POPC is considered to represent a potential risk only if it could reach receptors through an exposure pathway at a concentration that could potentially lead to adverse effects. If there is no pathway for a POPC to reach a receptor, then there cannot be a risk, regardless of the concentration. Figure 4-1 presents a conceptual site model for the identified receptors that shows operable exposure pathways. The exposure pathways that apply to identified receptors are discussed below.

4.1.4.1 Soil and Sediments Pathways

Although it is plausible that fugitive dust generated during weathering and erosion of rocks may be deposited onto surface waters, this is expected to be a negligible source of D-Al loading to surface water compared to other potential sources, such as runoff. Inhalation exposure is not considered an operable pathway for D-Al. Thus, atmospheric exposure by deposition or inhalation is considered a minor/inoperable pathway with a lower likelihood of contributing to adverse effects of D-Al to any of the identified receptors of concern.

In sediments and soils, Al is expected to be mainly complexed with organic matter (*e.g.*, humic and fulvic acids) or other complexing agents (*e.g.*, phosphate, silica) that are known to decrease the concentrations of D-Al available for uptake. In addition, conditions that favor the presence of labile aluminum forms (*e.g.*, pH < 6.5) are not expected to occur in receiving aquatic environments. Therefore, the potential for enhanced uptake of D-Al present in soil and sediments is expected to be negligible. Soils and sediments are thus considered a minor/inoperable pathway with a lower likelihood of contributing to adverse effects caused by D-Al exposure.

4.1.4.2 Aquatic Pathways

Exposure pathways for aquatic receptors are routes by which identified receptors could potentially be exposed to D-Al in various environmental media. Exposure pathways that could be applied to the identified aquatic receptors in Section 4.1.3 include the following:

- Uptake/Contact: Direct contact with D-Al in water or sediments by freshwater biota;
- Ingestion (applicable to invertebrate, fish and amphibians); and
- Incorporation/comsumption of dietary items, accidental ingestion of sediments.

Exposure pathways for identified aquatic receptors are shown on the conceptual model for the Project in Figure 4-1. There is no possibility for aquatic biota to be in direct contact with groundwater; thus, this is not an operable pathway for these receptors. However, aquatic receptors may be exposed to groundwater indirectly through contact with surface water. This is captured by the operable exposure pathway for uptake. As previously discussed, sediments are not considered an operable pathway of exposure for D-Al, and thus effects due to direct exposure or incidental ingestion of this medium by invertebrates, fish and amphibians is not a concern. In addition, uptake of D-Al by semi-aquatic plants from sediments is not an operable pathway.

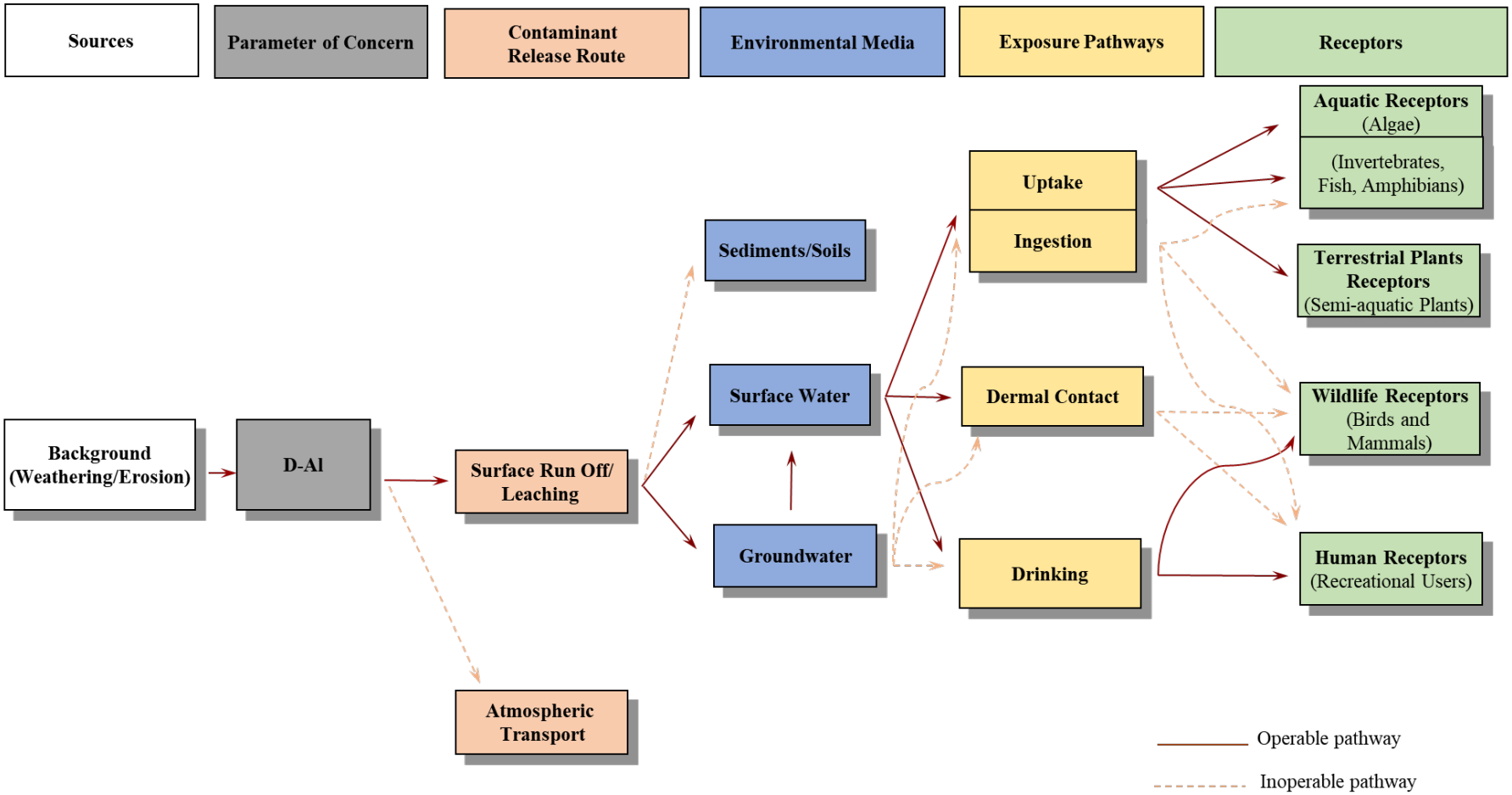

Figure 4-1: Conceptual Model for the Blackwater Gold Project for Dissolved Aluminum.

Given that aquatic biota reside directly in the water column, it is assumed that trans-dermal/biological membranes also form part of the uptake process. Transference of POPCs up the aquatic food can also be a source of POPCs for higher trophic levels. However, in the case of Al, this element does not biomagnify through the food chain and accumulation in tissues does not seem to play a significant role in aquatic systems, particularly for fish (ATDSR 2008). Therefore, it is assumed that dietary uptake is negligible with a lower likelihood of contributing to adverse effects to aquatic receptors. Based on this, the only operable pathway for Al for aquatic receptors is uptake from surface water.

4.1.4.3 Terrestrial Plants Pathways

For terrestrial plants, the potential for exposure to D-Al is not expected to occur by terrestrial routes because dissolved forms of Al are not expected to be significantly present in soils or sediments. Therefore, this is considered an inoperable pathway (Figure 4-1). The exception is riparian areas (or wetlands), where plant species maybe in direct contact with surface water. This is captured by the semi-aquatic plants category within aquatic biota receptors (discussed in Section 4.1.3.1). No operable exposure pathways were identified for terrestrial plants.

4.1.4.4 Wildlife Pathways

Exposure pathways for wildlife receptors are shown on the conceptual model in Figure 4-1. Exposure pathways applicable to identified wildlife receptors in Section 4.1.3.3 include the following:

- Ingestion: Incidental soil or sediment ingestion by wildlife; dietary items (both aquatic [*e.g.*, semi-aquatic plants, fish] and terrestrial [*e.g.*, insects]) consumption;
- Drinking: Incorporation/consumption of water; and
- Dermal: Exposure through skin surfaces (*e.g.,* fur).

Aluminum is not expected to biomagnify through the food chain and absorption in the gut is considered low. Thus, dietary uptake is considered negligible with a lower likelihood of contributing to adverse effects to wildlife receptors (ATSDR 2008). Direct exposure of wildlife receptors to groundwater is not expected although wildlife receptors may be exposed to groundwater indirectly through contact with surface water. This is captured by the operable exposure pathway for drinking water. As previously discussed, sediments and soils are not an operable pathway of exposure for D-Al, and thus effects on soil invertebrates and/or incidental ingestion of these media by wildlife are not a concern. Considering that wildlife's skin is covered with fur or feathers, dermal absorption of POPCs is assumed negligible compared to other exposure pathways (*e.g.*, drinking water).

Based on this, the operational pathway for the wildlife receptors identified in Section 4.1.3.3 is drinking surface water sources.

4.1.4.5 Human Pathways

Exposure pathways for human receptors are shown on the conceptual model in Figure 4-1. Exposure pathways applicable to human receptors include the following:

- Ingestion: Incidental ingestion of soil; ingestion of country foods (both aquatic [*e.g.*, fish] and terrestrial [*e.g.*, crops, moose]);
- Drinking: Incorporation/consumption of water; and
- Dermal: Exposure through the skin surface.

Aluminum is not expected to biomagnify through the food chain, and accumulation particularly in fish tissues is considered low. Crops irrigated with high-aluminum water generally accumulate this element in their roots, with low concentrations generally recorded in leaf tissues (ATSDR 2008). In addition, only a small percentage of Al incorporated through diet is expected to be absorbed in the gut (ATSDR 2008). Although limited information is available regarding the accumulation of Al in different environmental compartments, dietary uptake is considered negligible, with a lower likelihood of contributing to adverse effects in human receptors.

As previously discussed, sediments and soils are not considered an operable pathway of exposure for D-Al, and thus effects due to incidental ingestion of these media by humans is not a concern. There are no groundwater wells for public use in the Project areas as source of drinking water; therefore, direct exposure to human receptors via groundwater is not expected to occur. However, human receptors may be exposed to groundwater indirectly through contact with surface water. This is captured by the operable exposure pathway for drinking water. Dermal absorption of POPCs is assumed negligible compared to other exposure pathways (*i.e.,* drinking water). Based on this, the operational pathway for human receptors is drinking/intake of surface water sources.

5. Proposed Approach for SBEB Derivations

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5. Proposed Approach for SBEB Derivations

A meeting with representatives of the BC ENV was held April 21, 2021 to discuss the requirements for the proposed D-Al SBEB for the Project. ENV advised BW Gold that the background concentration procedure was appropriate for the development of the D-Al SBEB in receiving aquatic environments. Two deliverables were identified to support the application for the proposed D-Al SBEB:

1) The present Development Plan; and
2) A Submission Summary report (presented under separate cover).

5.1 Approach

Dissolved Al concentrations at monitoring stations located in Davidson Creek and Creek 661 routinely show values above the BC WQGs for several months of the year. Therefore, D-Al SBEBs for these systems are warranted as described in the BC ENV (2016) framework for the derivation and use of SBEBs applicable to mines. An SBEB is defined as a site-specific benchmark expected to protect aquatic systems where an existing or proposed permitted activity may potentially result in effects to water quality (BC ENV 2016).

The most appropriate approach for the development of a D-Al SBEB for Davidson Creek and Creek 661 is the background concentration procedure, as background concentrations of D-Al are naturally elevated and generally exceed applicable WQGs for this element (BC ENV 2013b, 2016). In this approach, the upper limits of background concentration are determined using the 95th percentile of existing data (BC ENV 2013b). The calculation may also account for seasonality in parameter concentration. Given the BC WQG for Al applies to the dissolved (rather than total) metal fraction, the SBEBs proposed for both Davidson Creek and Creek 661 are derived using baseline D-Al concentrations.

Appendix 3 of BC ENV (2013b) indicates that as long as there is no change from background concentrations (defined as the 95th percentile of appropriate data), it can be reasonably inferred that no harmful effects to receptors should take place. “No change” is defined as a difference of not greater than 20% going from upstream to downstream from a discharge or series of discharges (BC ENV 2013b). In the case of Davidson Creek and Creek 661, since the source of D-Al is from background rather than Project-related discharges, the derived SBEB is equal to the 95th percentile D-Al concentration plus 20%.

For the purposes of Davidson Creek and Creek 661, different D-Al SBEBs are proposed for different times of the year to account for seasonal concentration patterns and WQG exceedances reflected in the baseline dataset:

1. Spring and summer high flow season: April 1 to July 31
2. Fall and early winter intermediate flow season: August 1 to December 31

Outside of these dates (*i.e.*, January 1 to March 31), baseline concentrations fall below BC WQGs, and therefore no SBEB is proposed (*i.e.*, BC WQGs are assumed to apply).

5.1.1 Quality Assurance/Quality Control

Data used to calculate the D-Al SBEB were tabulated to facilitate visual examination of the results and identification of extreme or unusual data points. Compiled water quality data were checked for unit conversions, formulae and transcription errors between created excel sheets and all original data files.

All surface water quality data collected as part of the baseline program (including for D-Al) were subjected to a field and data quality assurance/quality control (QA/QC) system. The field program included the collection of field blanks, travel blanks, and field duplicates, the results of which were evaluated using data quality objectives presented in the BC Field Sampling Manual (BC ENV 2013a).

Overall, field and travel blanks indicate that field sampling procedures were successful at avoiding sample contamination. Field duplicates did not indicate any systematic issues with sampling or analytical methods. Further details on the baseline surface water quality QA/QC program are presented in Appendix 2-H (2011 to 2020 Baseline Water Quality Report; ERM, 2021) of the Joint Application.

5.2 Davidson Creek

The SBEB calculation approach described above yields the following D-Al SBEBs for Davidson Creek:

1. 0.26 mg/L from April 1 to July 31,
2. 0.11 mg/L from August 1 to December 31.

These values were calculated using the combined baseline data for WQ28, WQ27, WQ26 and WQ7 for each of the defined seasonal periods. Given that the EA certificate requires that WQGs or SBEBs are met in the Davidson Creek receiving environment (rather than at a compliance point), the datasets for all Davidson Creek stations were combined to derive applicable SBEBs. Corresponding station-specific calculations are shown in Table 5-1 for comparison purposes.

Table 5-1:
Davidson Creek - Dissolved aluminum (D-Al) 95th percentile concentrations plus 20%

Data period	Dissolved aluminum (mg/L)				
	D-Al SBEB*	WQ28	WQ27	WQ26	WQ7
April 1 – July 31	0.26	0.29	0.28	0.26	0.23
August 1 – December 31	0.11	0.12	0.11	0.086	0.068

*Values represent the proposed Science-Based Environmental Benchmarks (SBEB), calculated from combined WQ28, WQ27, WQ26 and WQ7 datasets.

In general, the proposed SBEB values for Davidson Creek reflect the upper limit of seasonal baseline D-Al concentrations for each of the stations (Figure 5-1). The values fall well below relevant drinking water criteria (*e.g.*, Maximum Allowable Concentration of 9.5 mg/L for drinking water sources). It is noted that select datapoints within the WQ28, WQ27 and WQ7 baseline datasets exceed the proposed SBEB during the spring/summer high flow season, reflecting natural variability.

5.3 Creek 661

The SBEB calculation approach described in Section 5 would yield the following proposed D-Al SBEBs for Creek 661:

1. 0.27 mg/L from April 1 to July 31,
2. 0.15 mg/L from August 1 to December 31.

The values were derived using the combined baseline monitoring data for WQ3 and WQ5 for each seasonal window. Both SBEBs fall below relevant drinking water criteria (*e.g.*, BC Maximum Allowable Concentration of 9.5 mg/L for drinking water sources). Corresponding station-specific calculations are shown in Table 5-2 for comparison. Three datapoints within the WQ5 baseline dataset exceed the proposed SBEB during the fall/early winter season, which reflect natural variability in D-Al concentrations (Figure 5-2).

Table 5-2:
Creek 661 dissolved aluminum (D-Al) 95th percentile concentrations plus 20%

Data period	Dissolved aluminum (mg/L)		
	D-Al SBEB*	WQ3	WQ5
April 1 – July 31	0.27	0.20	0.30
August 1 – December 31	0.15	0.09	0.26

*Values represent the proposed Science-Based Environmental Benchmarks (SBEB), calculated from combined WQ3 and WQ5 datasets.

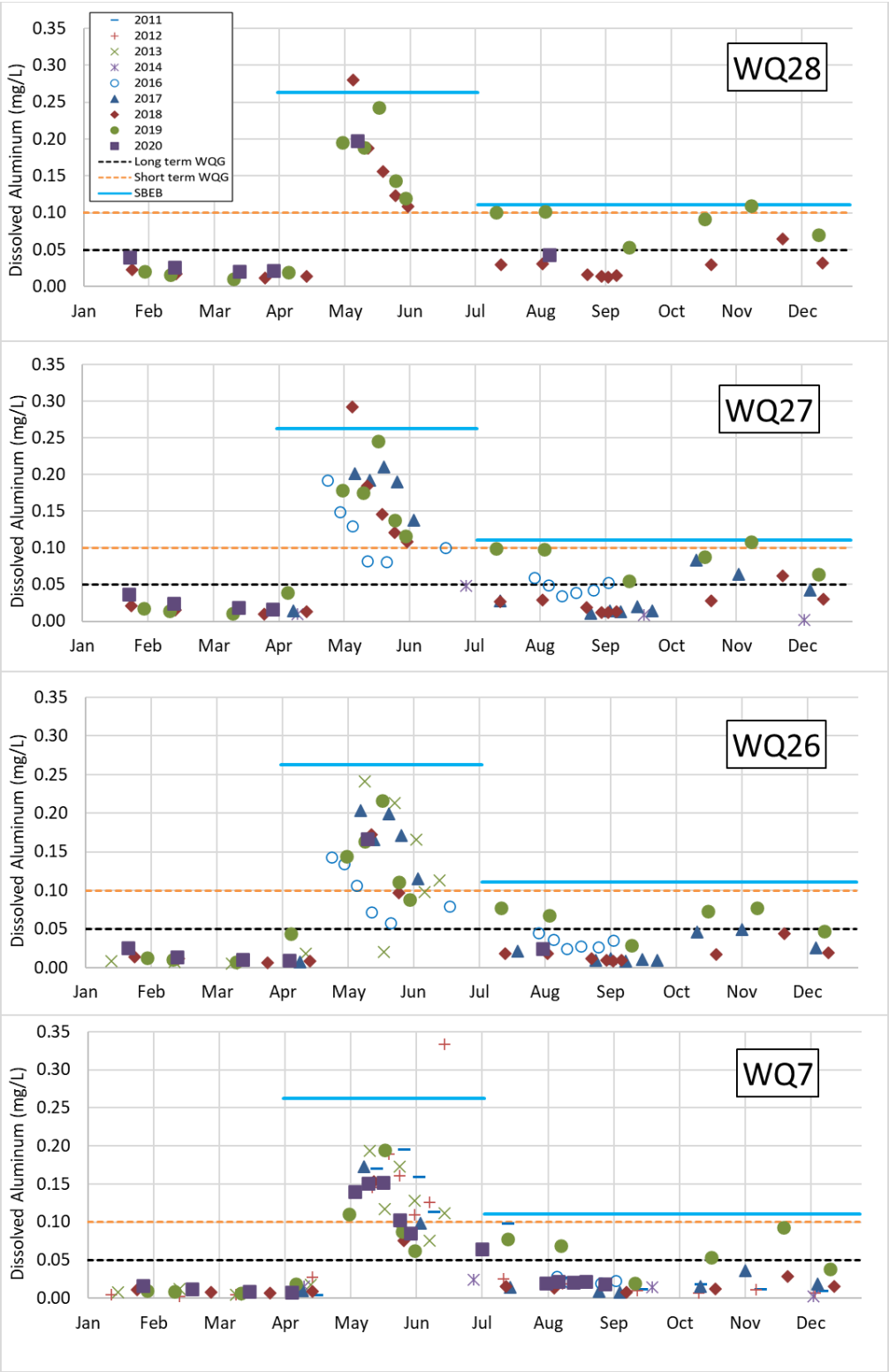

Figure 5-1: Davidson Creek - Monthly dissolved aluminum concentrations (stations WQ28, WQ27, WQ26 and WQ7) compared to British Columbia water quality guidelines for aquatic life (dashed lines) and proposed Science-Based Environmental Benchmark (solid blue line).

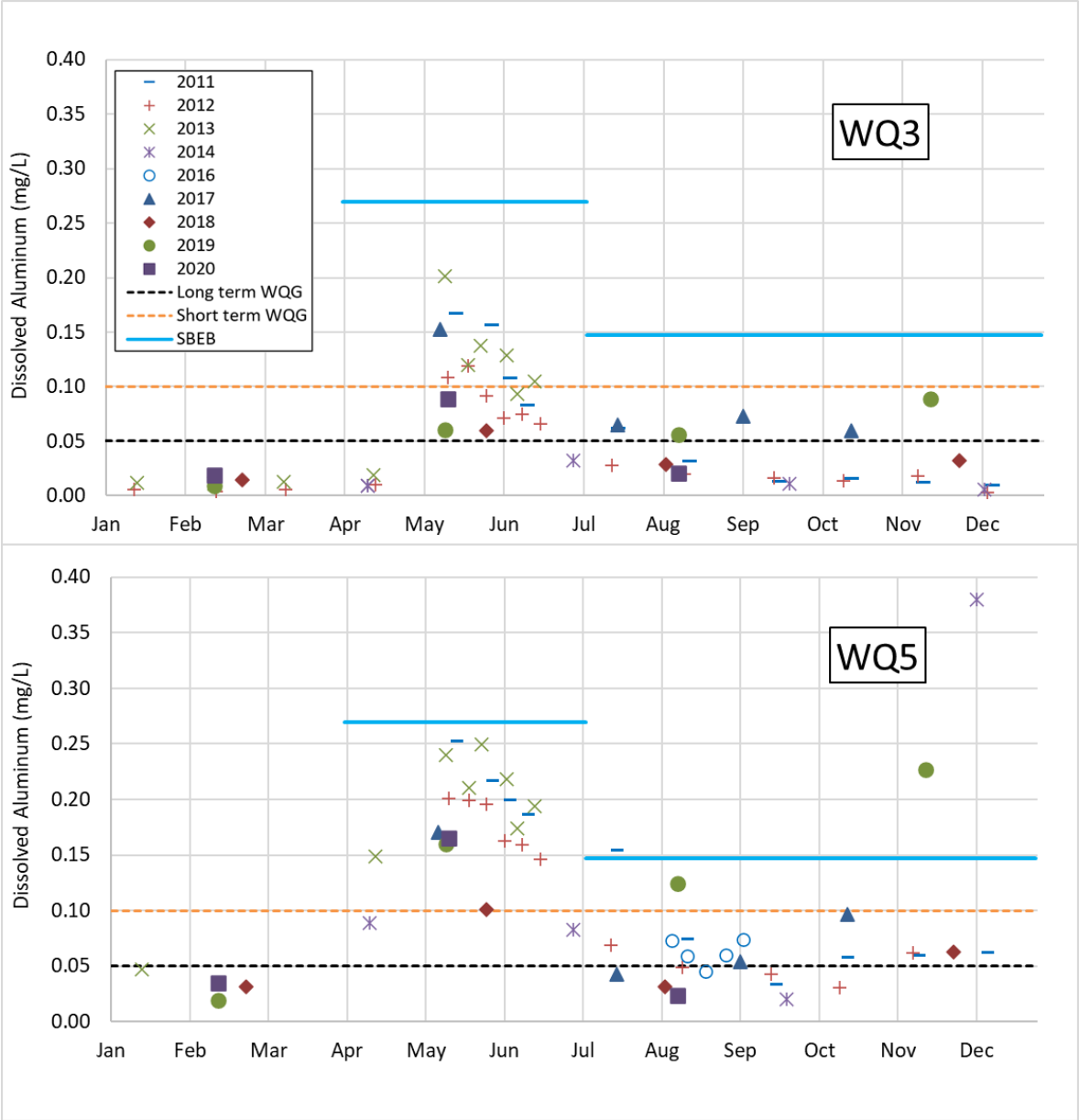

Figure 5-2: Creek 661 - Monthly dissolved aluminum concentrations (stations WQ3 and WQ5) compared to British Columbia water quality guidelines for aquatic life (dashed lines) and proposed Science-Based Environmental Benchmark (solid blue line).

6. Evaluation of SBEB Implementation

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6. Evaluation of SBEB Implementation

Based on the results of the problem formulation described in Section 4.1, the operable pathway applicable to D-Al relates to the occurrence of Al species in surface water. A SBEB for water is consequently proposed for D-Al in Davidson Creek and Creek 661. This section discusses the applicability and proposed implementation of the SBEB.

Predicted D-Al concentrations for the Project are provided in Appendix C (95th percentile statistic for the Base Case model). Predicted D-Al concentrations screened against the proposed SBEB for Davidson Creek and Creek 661 (grouped by month) are shown in Figure 6-1 and Figure 6-2. For Davidson Creek, predicted concentrations remain below the SBEB value for all stations through the Project Construction and Operation phases. Predicted D-Al concentrations for Creek 661 exceed SBEB values for both WQ5 and WQCk661 (a model node representing the lower reach of Creek 661, just before the creek's confluence with Chedakuz Creek) in March and December. These exceedances reflect baseline D-Al concentrations that occurred in the those months and are incorporated into the background terms for these model nodes (*e.g.,* Figure 5-1). The exceedances therefore reflect natural variability. Because the exceedances are driven by background sources, rather than mine-related effects, the potential for adverse effects to aquatic biota is negligible.

Although adverse effects due to D-Al exposure in aquatic biota are not expected to occur, concentrations will be routinely monitored as part of the Aquatic Effects Monitoring Plan (AEMP), submitted with the Joint Application. Monitoring results obtained through the AEMP will be used in an adaptive management approach that will routinely evaluate the appropriateness of the SBEB and prescribe updates to monitoring plans and inform mitigation efforts, as necessary.

Assessment of SBEBs in relation to drinking water is considered implicitly, in that the proposed values for protection of aquatic life for D-Al are more stringent than those for drinking water (guidelines for human and wildlife receptors are 9.5 mg D-Al/L and 5 mg T-Al/L, respectively). Based on this, the proposed SBEB values are expected to protect human and wildlife receptors against adverse effects that may occur due to D-Al exposures.

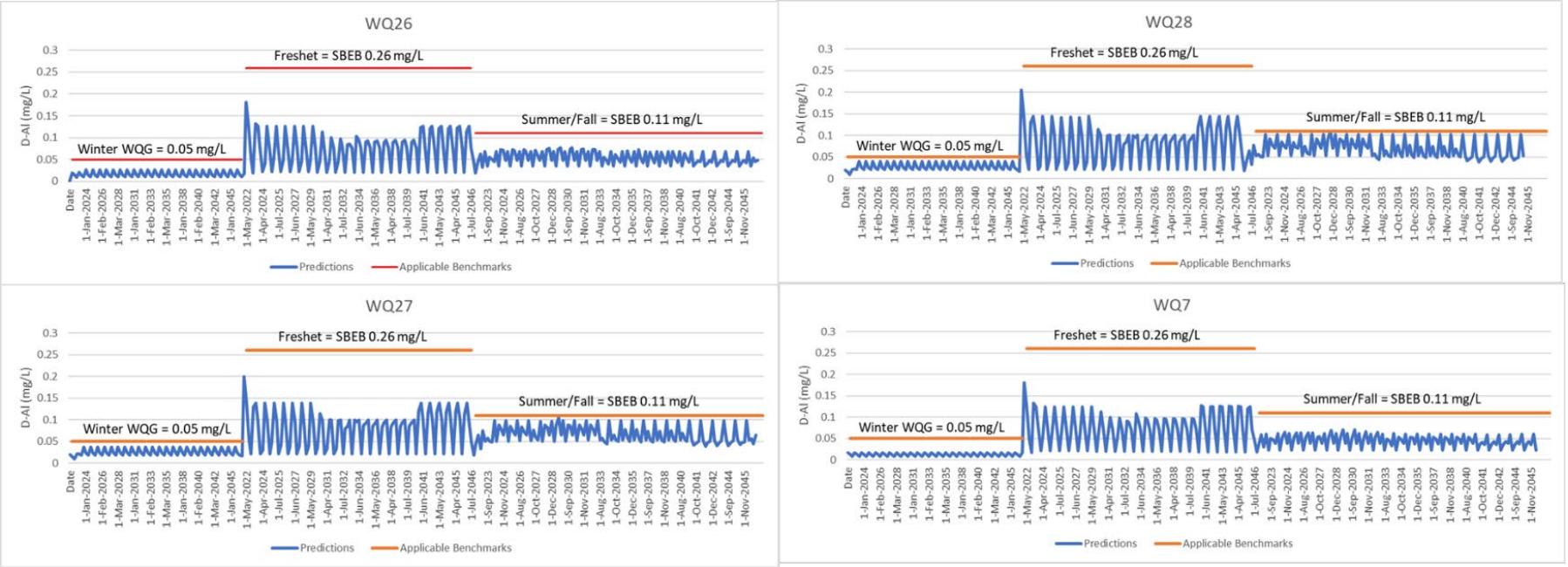

Figure 6-1: Water quality predictions for dissolved aluminum (D-Al) in Davidson Creek during construction and operations phases (temporal boundary 2022 to 2046) for the Blackwater Gold Project compared against proposed Science-Based Environmental Benchmark (SBEB; solid red line). Monthly predictions are grouped by flow periods for visualization purposes (*e.g.*, January to March 2022 to 2046, then April to July 2022 to 2046, followed by August to December 2022 to 2046).

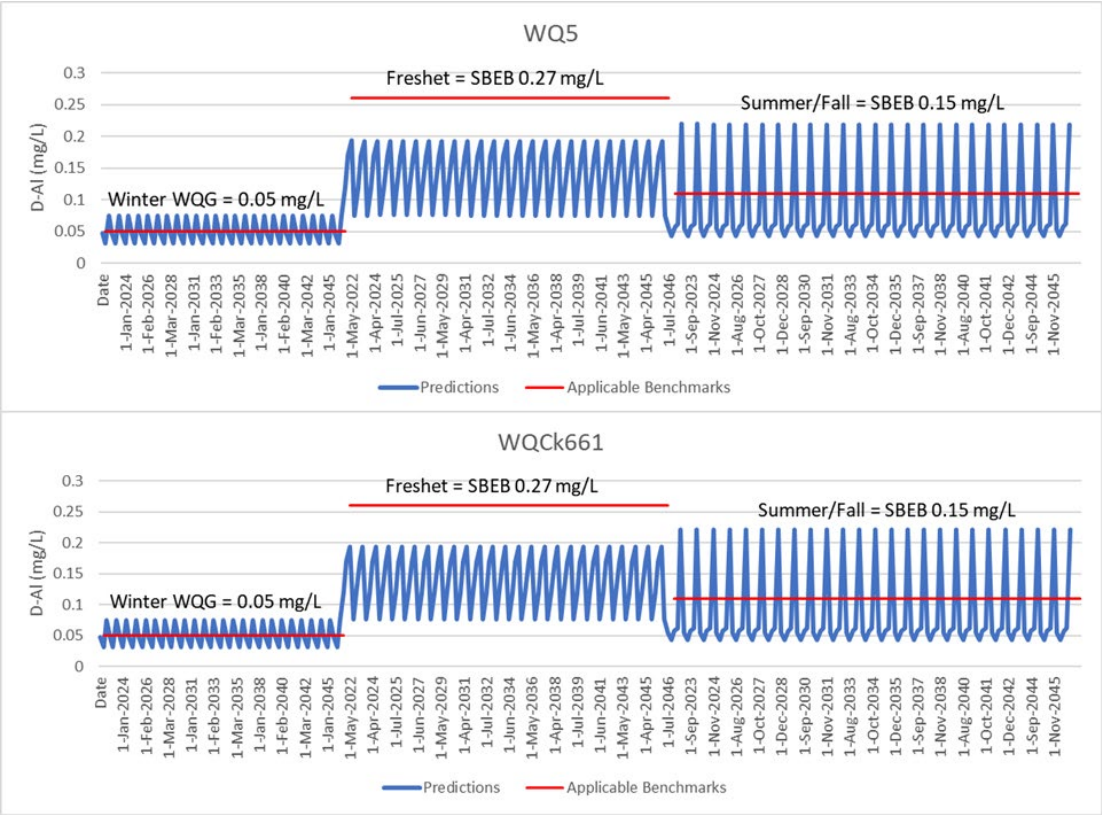

Figure 6-2: Water quality predictions for dissolved aluminum (D-Al) in Creek 661 during construction and operations phases (temporal boundary 2022 to 2046) for the Blackwater Gold Project compared against proposed Science-Based Environmental Benchmark (SBEB; solid red line) (solids red line). Monthly predictions are grouped by flow periods for visualization purposes (*e.g.*, January to March 2022 to 2046, then April to July 2022 to 2046, followed by August to December 2022 to 2046).

7. Uncertainty Considerations

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7. Uncertainty Considerations

Sources of uncertainty associated with the proposed SBEB may include occasional sampling and measurement errors that occurred during the baseline program. However, the results of the QA/QC samples collected during the baseline monitoring program suggest the risk of this source of uncertainty is relatively low. Based on this, it is not expected that the described uncertainty sources will affect the reliability and protective nature of the proposed SBEB value.

The WB/WQM used to predict D-Al in Davidson Creek and Creek 661 during the Project's Construction and Operations phases inherently carries a degree of uncertainty and necessary assumptions. Uncertainty associated with certain model inputs was addressed where possible by performing model sensitivity analyses, including those for geochemical source term and climate change variability. Other components built into the WB/WQM carry a reasonable degree of conservatism to yield conservative water quality predictions. As such, the WB/WQM predictions reflect sound assumptions, inputs, design parameters, model limitations, science, and engineering judgment. Model inputs will be routinely assessed and tested throughout the Construction and Operation phases of the Project, through several management and monitoring plans (*e.g.,* the Metal Leaching/Acid Rock Drainage [ML/ARD] Management Plan, the Mine Water and Discharge Management and Monitoring Plan, and the AEMP).

8. Closure

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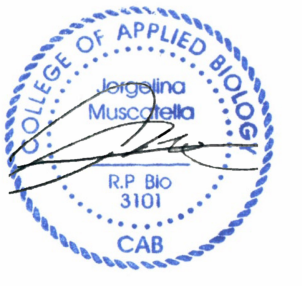
8. Closure

We trust that the information provided herein is sufficient for your present needs. Should you require anything further, please contact the undersigned.

Yours sincerely,
Lorax Environmental Services

Prepared by:



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Appendix A: Checklist for SBEB Development Plan

Appendix A - Checklist for Phase 1: SBEB Development Plan

The SBEB Development Plan should include the items listed below and this table must be part of the plan submission.[4]

Information Requirements	Information Provided				Location in Document (page number and section)	Comments
	Provided	Partially Provided	Not Provided	Not Applicable		
Qualified Professionals						
Qualified professionals has (have) developed and signed the SBEB Development Plan	X					QPs have produced the development plan for the Blackwater Project
The qualified professionals are practicing in the area of their expertise	X					QPs are current members of the College of Applied Biology, and have more than 10 years of experience in the field.
Site Characterization Information						
Inventory of water quality (18 to 24 months), sediment quality, and biota for critical sites, including spatial and temporal trends.	X				Section 2; Appendix B	
Inventory of all water uses in the area affected by the mine, including drinking water and/or agriculture.	X				Section 2.3; Section 4.1.1 (Page 4.2)	
Identification of critical aquatic life receptors at the site, including sensitive species, taxonomic groups and/or life stages.	X				Section 2 (Pages 2.7 to 2.8); Section 4.1.3 (Pages 4.2 to 4.4)	
Identification of applicable trends related to flows, TSS, or other measures reflective of site conditions.	X				Sections 2.1 and 2.2 (Pages 2.2 to 2.5)	
Data tables including basic statistics such as maximum, minimum, median, and mean with confidence intervals.	X				Sections 2.1 and 2.2 (Pages 2.2 to 2.5)	
WQGs and pertinent parameters for derivation including hardness, pH, chloride, dissolved organic carbon and temperature. Ensure dependent WQGs are calculated using pertinent parameters from the same sample event, not a mean.	X				Section 2.3 (Page 2.6)	The BC WQG for D-Al will be discussed alongside pH; the BC WQG for D-Al is pH-dependent.
Summary of WQG exceedances by parameter, including frequencies and magnitudes of exceedance.	X				Sections 2.1, 2,2 (Pages 2.2 to 2.5) and 6 (Pages 6.2 and 6.3)	WQG exceedances for D-Al will be presented.
All relevant raw data tabled in an appendix or appendices.	X				Appendix B	Raw data will be provided in an Excel format.
Effluent Characterization and Model Projections						
Identification of applicable best-achievable technology (BAT) and best management practices for existing and proposed mine operations pertaining to water quality.				X		Information requirement is not applicable as SBEB will be derived based on background concentration procedure, as discussed in April 21, 2021, call with ARTG/ENV/EMLI.
Description of how best management practices and BAT have or will influence existing and/or model projected water quality in the effluent and receiving waters.				X		Information requirement is not applicable as SBEB will be derived based on background concentration procedure, as discussed in April 21, 2021, call with ARTG/ENV/EMLI.
Characteristics of existing permitted mine effluent discharges and any seepage, including seasonal flow rates and model projected changes for future project phases.				X		There are no existing permitted mine effluent discharges or seepages.
Identification of parameters exceeding WQGs in existing and/or model-projected effluent and receiving waters.		X			Section 6 (Pages 6.2 and 6.3)	These requirements will be presented as they relate to the proposed D-Al SBEB and toxicity-modifying factors. This approach assumes the Development Plan and SBEB Submission are submitted at the same time as Joint Application for *Mines Act* and *Environmental Management Act* permits (JA) with final water quality model predictions. Detailed model results will be presented in the JA.

Appendix A - Checklist for Phase 1: SBEB Development Plan

The SBEB Development Plan should include the items listed below and this table must be part of the plan submission.[a]

Information Requirements	Information Provided				Location in Document (page number and section)	Comments
	Provided	Partially Provided	Not Provided	Not Applicable		
Identification of the project phase and seasons for which worst-case water quality is projected in receiving waters.	☐	☒	☐	☐	Section 6 (Pages 6.2 and 6.3)	These requirements will be presented as they relate to D-Al concentrations and toxicity-modifying factors. This approach assumes Development Plan and SBEB Submission are submitted at the same time as the JA, in which detailed water quality model predictions will be presented.
Identification and description of site-specific toxicity modifying factors (*e.g.*, water hardness, pH, temperature, chloride, dissolved organic carbon) in the receiving environment.	☒	☐	☐	☐	Sections 2.1, 2.2 (Pages 2.2 to 2.4) and 2.3 (Pages 2.6)	The pH in the receiving environment will be described as a potential modifier of D-Al toxicity.
Rationale for the development of SBEBs						
Problem formulation that describes the purpose of the work including questions to be addressed.	☒	☐	☐	☐	Section 4 (Pages 4.2 to 4.8)	
High-level conceptual site model that defines the sources, fate and pathways of the parameters of concern as well as the aquatic receptors and potential effect on these at the site.	☒	☐	☐	☐	Section 4 (Page 4.6)	
Description of parameters SBEBs will be developed for.	☒	☐	☐	☐	Section 4.1.2 (Page 4.2) and 5.1 (Pages 5.2 to 5.4)	
Rationale for the use of SBEBs vs. WQGs.	☒	☐	☐	☐	Section 5.1 (Page 5.2)	The Environmental Assessment Certificate for the project states that WQGs or SBEBs must be met in the receiving environment. Because D-Al naturally exceeds the WQG in the receiving environment, an SBEB is required. The aquatic effects assessment and proposed mine water management strategies in the JA will need to incorporate and evaluate potential Project effects using the proposed SBEB due to natural background exceedances.
Proposed Scientific Approaches for SBEB Development						
Identification and evaluation of scientific approaches used to develop the SBEB(s) with justification for the scientific approaches chosen.	☒	☐	☐	☐	Section 5(Pages 5.2 to 5.3)	
Description of the selected scientific approaches, including methods, standards and/or protocols, species, and endpoints, quality assurance/quality control (QA/QC) procedures, rationale for the selectedapproaches.	☒	☐	☐	☐	Section 5.1.1 (Page 5.2)	The approach used to derive applicable SBEBs for D-Al will be described (i.e., background concentration procedure) and supporting rationale.
Proposed data analyses (including statistical methods and data quality objectives).	☒	☐	☐	☐	Section 5 (Pages 5.2 to 5.4),; Appendix B	
Explanation of how results of scientific approaches address questions from the problem formulation.	☒	☐	☐	☐	Section 6 (Pages 6.1 to 6.3)	
Discussion of uncertainty related to the scientific approaches used.	☒	☐	☐	☐	Section 7 (Page 7.1)	
A detailed schedule of SBEB development, including timelines for laboratory work, field work, statistical analysis, document write-up, and meetings.	☒	☐	☐	☐	Section 5 (Pages 5.1 to 5.4)	
Deliverables associated with the SBEB development, including documents in support of the proposed SBEBs, such as laboratory results, inventory data, statistical methods and analyses.	☒	☐	☐	☐	Section 5 (Pages 5.1 to 5.4), Appendices B and C	

Appendix B: Baseline Water Quality Data

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ28	2017-04-11	7.9	46.4	2.57	<3.0	0.02
WQ28	2017-05-10	7.21	15.8	15.6	<3.0	0.21
WQ28	2017-05-17	7.25	15.1	14.3	110	0.20
WQ28	2017-05-24	7.01	12.1	15.6	4.5	0.22
WQ28	2017-05-24	7.04	12	15.7	3.1	0.23
WQ28	2017-05-30	7.15	10.4	12.6	<3.0	0.20
WQ28	2017-06-07	7.34	13.3	10.1	7.3	0.14
WQ28	2017-07-18	7.71	29.8	4.33	<3.0	0.03
WQ28	2017-07-18	7.7	30	4.27	<3.0	0.03
WQ28	2017-08-30	8	49.8	2.31	<3.0	0.01
WQ28	2017-09-08	8	47.5	3.01	16.8	0.02
WQ28	2017-09-13	7.94	43.4	3.07	<3.0	0.01
WQ28	2017-09-21	7.72	33.6	4.01	3.4	0.02
WQ28	2017-09-21	7.83	34.1	4.01	4	0.02
WQ28	2017-09-28	7.9	39.1	3.58	<3.0	0.02
WQ28	2017-09-28	7.9	39.9	3.54	<3.0	0.02
WQ28	2017-10-19	7.76	23.5	11.4	<3.0	0.09
WQ28	2017-11-08	7.59	22.6	6.44	<3.0	0.07
WQ28	2017-12-12	7.75	29.3	4.62	<3.0	0.04
WQ28	2018-01-24	7.87	38.9	3.1	<3.0	0.02
WQ28	2018-02-14	7.89	38	2.64	<3.0	0.02
WQ28	2018-03-28	7.78	39.7	2.41	3	0.01
WQ28	2018-04-17	7.97	42.4	2.64	<3.0	0.01
WQ28	2018-05-09	7.13	10	17.3	26.7	0.28
WQ28	2018-05-09	7.1	9.87	16.8	20.7	0.27
WQ28	2018-05-16	7.15	8.93	12.4	6.9	0.19
WQ28	2018-05-23	7.15	10.4	10.2	<3.0	0.16
WQ28	2018-05-29	7.43	13.4	8.65	<3.0	0.12
WQ28	2018-06-04	7.48	13.7	9.07	8.8	0.11
WQ28	2018-07-18	7.84	30.7	4.32	3.5	0.03
WQ28	2018-08-07	7.87	33.3	4.58	<3.0	0.03
WQ28	2018-08-28	7.97	43.3	2.57	<3.0	0.02
WQ28	2018-09-04	7.83	43.6	2.65	<3.0	0.01
WQ28	2018-09-04	7.87	43.2	2.66	<3.0	0.01
WQ28	2018-09-07	7.91	44.9	2.4	<3.0	0.01
WQ28	2018-09-11	7.99	39.6	2.83	<3.0	0.02
WQ28	2018-10-26	7.68	29.2	4.44	<3.0	0.03
WQ28	2018-11-29	7.54	23.1	6.25	<3.0	0.06
WQ28	2018-12-18	7.77	28.9	3.9	<3.0	0.03
WQ28	2019-01-30	7.8	34.7	2.79	<3.0	0.02
WQ28	2019-02-11	7.8	39.9	2.54	<3.0	0.02
WQ28	2019-03-13	7.85	44.9	1.77	<3.0	0.01
WQ28	2019-04-08	7.82	43.4	5.62	<3.0	0.02
WQ28	2019-05-04	7.38	17.3	12.4	6.4	0.20
WQ28	2019-05-14	7.21	13.2	13.2	<3.0	0.19
WQ28	2019-05-21	7.5	11.1	16.5	9.2	0.24
WQ28	2019-05-21	7.43	11.8	16.2	13.8	0.25
WQ28	2019-05-29	7.35	13.9	11	<3.0	0.14
WQ28	2019-05-29	7.23	14.3	10.9	<3.0	0.15
WQ28	2019-06-03	7.46	16.1	9.26	<3.0	0.12

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ28	2019-07-16	7.49	17.8	9.37	<3.0	0.10
WQ28	2019-08-08	7.55	19.3	8.98	<3.0	0.10
WQ28	2019-09-17	7.77	26.9	6.21	<3.0	0.05
WQ28	2019-10-23	7.6	19.2	7.18	<3.0	0.09
WQ28	2019-11-14	7.53	17.3	7.95	<3.0	0.11
WQ28	2019-12-16	7.32	23	5.63	<3.0	0.07
WQ28	2020-01-23	7.71	30.7	4.44	<3.0	0.04
WQ28	2020-02-13	7.61	32.3	3.22	<3.0	0.03
WQ28	2020-03-16	7.72	36.7	2.78	<3.0	0.02
WQ28	2020-04-01	7.66	41.5	2.58	<3.0	0.02
WQ28	2020-05-11	7.05	12.6	13.7	<3.0	0.20
WQ28	2020-08-10	7.75	25.4	6.13	<3.0	0.04
WQ27	2014-04-13	7.71	46.9	2.6	<2	0.01
WQ27	2014-07-02	7.37	26.2	5.8	<2	0.05
WQ27	2014-09-24	7.84	60	2.2	<2	0.01
WQ27	2014-12-09	7.78	51.6	1.9	<2	0.00
WQ27	2016-04-27	7.15	13.3	14.6	3.2	0.19
WQ27	2016-05-03	7.27	13.1	11.3	<3.0	0.15
WQ27	2016-05-09	7.45	14.9	8.92	<3.0	0.13
WQ27	2016-05-16	7.6	16.5	7.58	<3.0	0.08
WQ27	2016-05-25	7.65	19.4	6.56	<3.0	0.08
WQ27	2016-06-22	7.62	16.7	10	<3.0	0.10
WQ27	2016-06-22	7.63	17	9.68	<3.0	0.10
WQ27	2016-08-03	7.68	25	6.78	<3.0	0.06
WQ27	2016-08-10	7.72	27.6	6.74	<3.0	0.05
WQ27	2016-08-16	7.7	33	4.98	<3.0	0.03
WQ27	2016-08-23	7.62	29.4	5.67	<3.0	0.04
WQ27	2016-08-31	7.58	30.7	6.41	<3.0	0.04
WQ27	2016-09-07	7.55	26.3	7.33	<3.0	0.05
WQ27	2017-04-11	7.9	46.8	2.73	<3.0	0.01
WQ27	2017-05-10	7.22	16.1	15.4	3.5	0.20
WQ27	2017-05-17	7.29	14.4	14	<3.0	0.19
WQ27	2017-05-24	7.05	12.4	15.7	4.3	0.21
WQ27	2017-05-30	7.09	10.6	12.5	<3.0	0.19
WQ27	2017-06-07	7.3	13.7	10.6	4.1	0.14
WQ27	2017-07-18	7.71	30.6	4.1	<3.0	0.03
WQ27	2017-08-30	7.96	48.9	2.26	<3.0	0.01
WQ27	2017-09-08	7.96	47.4	2.87	<3.0	0.01
WQ27	2017-09-13	7.85	44.1	2.85	4.5	0.01
WQ27	2017-09-13	7.9	44.3	2.97	<3.0	0.01
WQ27	2017-09-21	7.82	36	3.78	<3.0	0.02
WQ27	2017-09-28	7.89	40.7	3.38	<3.0	0.01
WQ27	2017-10-19	7.67	24.8	10.7	<3.0	0.08
WQ27	2017-11-08	7.54	22.7	6.27	<3.0	0.06
WQ27	2017-12-12	7.76	30.1	4.51	<3.0	0.04
WQ27	2018-01-24	7.87	39	2.9	<3.0	0.02
WQ27	2018-02-14	7.89	37.4	2.88	<3.0	0.02
WQ27	2018-03-28	8.07	39.8	2.21	<3.0	0.01
WQ27	2018-04-17	7.95	42.7	2.71	<3.0	0.01
WQ27	2018-05-09	7.18	10.5	17.9	19.5	0.29

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ27	2018-05-16	7.18	9.2	12.9	10.5	0.19
WQ27	2018-05-23	7.34	10.6	10.3	4.3	0.15
WQ27	2018-05-23	7.33	10.3	10.5	3.3	0.14
WQ27	2018-05-29	7.44	14	8.66	<3.0	0.12
WQ27	2018-06-04	7.44	14.3	8.97	3.8	0.11
WQ27	2018-06-04	7.51	14.3	8.65	<3.0	0.11
WQ27	2018-07-18	7.84	30.4	4.27	<3.0	0.03
WQ27	2018-08-07	7.72	34	4.55	<3.0	0.03
WQ27	2018-08-28	7.91	42.1	2.58	<3.0	0.02
WQ27	2018-08-28	7.86	43.2	2.49	<3.0	0.02
WQ27	2018-09-04	7.83	43.1	2.65	<3.0	0.01
WQ27	2018-09-07	7.86	45.5	2.4	<3.0	0.01
WQ27	2018-09-11	7.99	42	2.78	<3.0	0.01
WQ27	2018-10-26	7.68	30.6	4.32	<3.0	0.03
WQ27	2018-11-29	7.54	24.7	6.23	3	0.06
WQ27	2018-11-29	7.55	23.9	6.31	<3.0	0.06
WQ27	2018-12-18	7.83	30.4	3.86	<3.0	0.03
WQ27	2019-01-30	7.78	35	2.77	<3.0	0.02
WQ27	2019-02-11	7.73	40.3	2.32	<3.0	0.01
WQ27	2019-03-13	7.83	43.8	1.8	<3.0	0.01
WQ27	2019-04-08	7.71	34.5	5.63	<3.0	0.04
WQ27	2019-05-04	7.31	17.5	12.4	6.4	0.18
WQ27	2019-05-14	7.2	13.4	13.8	<3.0	0.17
WQ27	2019-05-21	7.45	11.3	17.8	8.6	0.25
WQ27	2019-05-29	7.27	14.4	10.9	<3.0	0.14
WQ27	2019-06-03	7.37	16.6	9.09	<3.0	0.12
WQ27	2019-07-16	7.45	18.5	9.6	<3.0	0.10
WQ27	2019-08-08	7.55	20.6	9.05	<3.0	0.10
WQ27	2019-09-17	7.75	25.3	6.18	<3.0	0.05
WQ27	2019-10-23	7.61	19.1	7.13	<3.0	0.09
WQ27	2019-11-14	7.62	17.7	7.83	<3.0	0.11
WQ27	2019-12-16	7.31	23.7	5.35	<3.0	0.06
WQ27	2020-01-23	7.7	31.7	3.86	<3.0	0.04
WQ27	2020-02-13	7.7	35.4	3.09	<3.0	0.02
WQ27	2020-03-16	7.66	37.5	2.59	<3.0	0.02
WQ27	2020-04-01	7.67	43.5	2.44	<3.0	0.02
WQ26	2013-01-13	7.7	62.2	2.4	< 2	0.01
WQ26	2013-02-12	7.8	60.9	2.2	< 2	0.01
WQ26	2013-03-11	7.88	64.7	2	< 2	0.01
WQ26	2013-04-15	7.74	46	4.9	< 2	0.02
WQ26	2013-05-13	7.53	14.3	12.8	7	0.24
WQ26	2013-05-22	7.24	17	5	< 2	0.02
WQ26	2013-05-27	7.29	18.5	11.5	6	0.21
WQ26	2013-06-06	7.29	17.1	11	6	0.17
WQ26	2013-06-10	7.4	20.4	7.9	2	0.10
WQ26	2013-06-17	7.33	19.1	9.1	5	0.11
WQ26	2016-04-27	7.28	17.4	7.69	4.6	0.14
WQ26	2016-04-27	7.22	18	14	5.6	0.17
WQ26	2016-05-03	7.46	17.4	11.4	3.4	0.14
WQ26	2016-05-03	7.4	14.3	11.5	<3.0	0.16

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ26	2016-05-09	7.56	19.2	8.69	<3.0	0.11
WQ26	2016-05-16	7.67	21.4	7.32	<3.0	0.07
WQ26	2016-05-25	7.77	24.7	6.5	<3.0	0.06
WQ26	2016-06-22	7.6	20.9	9.72	<3.0	0.08
WQ26	2016-08-03	7.66	32.3	6.42	<3.0	0.05
WQ26	2016-08-03	7.7	31.1	6.72	<3.0	0.04
WQ26	2016-08-10	7.83	34.5	6.53	<3.0	0.04
WQ26	2016-08-16	7.83	39.8	5.1	<3.0	0.02
WQ26	2016-08-23	7.75	36.7	5.2	<3.0	0.03
WQ26	2016-08-23	7.72	36.6	5.12	<3.0	0.03
WQ26	2016-08-31	7.72	38.5	5.83	<3.0	0.03
WQ26	2016-09-07	7.67	34.3	7.07	<3.0	0.03
WQ26	2017-04-12	7.96	56.4	3.32	<3.0	0.01
WQ26	2017-05-11	7.32	20.3	15	3.2	0.20
WQ26	2017-05-17	7.43	18.4	13.5	<3.0	0.17
WQ26	2017-05-17	7.4	18.2	14	3.8	0.17
WQ26	2017-05-24	7.18	14.7	15.3	8.7	0.20
WQ26	2017-05-30	7.26	12.8	12.2	4.4	0.17
WQ26	2017-05-30	7.25	12.8	12.1	3.2	0.17
WQ26	2017-06-07	7.44	17.6	9.94	3.5	0.12
WQ26	2017-06-07	7.42	17.5	10.1	4.7	0.12
WQ26	2017-07-24	7.85	40.9	4.16	<3.0	0.02
WQ26	2017-08-30	8.03	53.6	2.39	<3.0	0.01
WQ26	2017-09-06	7.97	53.9	3.12	<3.0	0.01
WQ26	2017-09-13	7.99	51.1	2.6	4.5	0.01
WQ26	2017-09-21	7.89	47.7	2.94	<3.0	0.01
WQ26	2017-09-28	7.99	47.5	3.02	<3.0	0.01
WQ26	2017-10-17	7.95	28.7	6.83	10.3	0.05
WQ26	2017-11-07	7.75	31.9	6.4	<3.0	0.05
WQ26	2017-12-12	7.87	39.5	4.7	<3.0	0.03
WQ26	2018-01-24	8.07	47.3	2.76	<3.0	0.01
WQ26	2018-02-14	7.94	47.9	2.83	<3.0	0.01
WQ26	2018-03-28	8.12	46.7	2.21	<3.0	0.01
WQ26	2018-04-17	8.03	53.5	2.38	<3.0	0.01
WQ26	2018-05-16	7.31	11.5	12.8	18.5	0.17
WQ26	2018-05-29	7.57	18.6	8.83	5	0.10
WQ26	2018-07-18	7.93	37.4	4.25	<3.0	0.02
WQ26	2018-08-07	7.94	40.6	4.35	<3.0	0.02
WQ26	2018-08-07	7.94	40.3	4.29	<3.0	0.02
WQ26	2018-08-28	8	49.7	2.42	<3.0	0.01
WQ26	2018-09-04	8.03	50.1	2.93	<3.0	0.01
WQ26	2018-09-07	7.97	51.3	2.42	<3.0	0.01
WQ26	2018-09-07	8.01	52.4	2.35	<3.0	0.01
WQ26	2018-09-11	8.04	50.9	2.59	<3.0	0.01
WQ26	2018-10-26	7.78	38.3	4.25	<3.0	0.02
WQ26	2018-11-27	7.69	29.6	4.82	<3.0	0.04
WQ26	2018-12-18	7.92	38.2	3.65	<3.0	0.02
WQ26	2019-01-30	7.88	42.5	2.7	<3.0	0.01
WQ26	2019-02-11	7.84	48	2.7	<3.0	0.01
WQ26	2019-03-13	7.88	50.9	1.99	<3.0	0.01

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ26	2019-03-13	7.89	52.1	1.79	<3.0	0.01
WQ26	2019-04-08	7.7	32.6	5.82	<3.0	0.04
WQ26	2019-05-04	7.44	21.4	11.5	10.2	0.14
WQ26	2019-05-13	7.28	16.9	13.6	8.4	0.16
WQ26	2019-05-21	7.09	15.2	18.3	20	0.22
WQ26	2019-05-29	7.49	19.9	11.3	5.3	0.11
WQ26	2019-06-03	7.58	22.4	9.15	3.5	0.09
WQ26	2019-07-16	7.71	24.1	9.5	<3.0	0.08
WQ26	2019-08-08	7.69	27.2	8.98	<3.0	0.07
WQ26	2019-09-16	7.79	34.7	5.22	<3.0	0.03
WQ26	2019-09-16	7.79	34.7	5.06	3.1	0.03
WQ26	2019-10-22	7.62	26.7	7.66	<3.0	0.07
WQ26	2019-10-22	7.62	26.3	8.15	<3.0	0.07
WQ26	2019-11-14	7.75	23.2	7.67	<3.0	0.08
WQ26	2019-12-16	7.4	29.4	5.33	<3.0	0.05
WQ26	2020-01-21	7.75	40	4.73	<3.0	0.03
WQ26	2020-02-13	7.7	41.9	3.34	<3.0	0.01
WQ26	2020-03-16	7.75	45.4	2.85	<3.0	0.01
WQ26	2020-04-07	7.75	52.8	2.23	<3.0	0.01
WQ26	2020-05-14	7.13	15.4	12.9	4.2	0.17
WQ26	2020-08-05	7.71	37.9	4.32	<3.0	0.02
WQ7	2011-04-19	8.14	57.4	2.2	< 2	0.01
WQ7	2011-05-17	7.4	20	20.1	11	0.17
WQ7	2011-05-24	7.25	18.1	22.7	38	
WQ7	2011-05-30	7.17	16.9	15	37	0.20
WQ7	2011-06-06	7.19	14.1	11	41	0.16
WQ7	2011-06-13	7.27	16.1	9.2	9	0.11
WQ7	2011-07-18	7.41	25.2	10.9	9	0.10
WQ7	2011-08-15	7.66	34.1	5.8	6	0.03
WQ7	2011-09-19	7.66	47.8	3.6	< 2	0.01
WQ7	2011-09-19	7.58		3.7	< 2	0.01
WQ7	2011-10-17	7.55	40	5.2	< 2	0.02
WQ7	2011-10-17	7.58		4.8	< 2	0.02
WQ7	2011-11-14	7.51	43.1	4	2	0.01
WQ7	2011-12-13	7.4	50.6	3.4	11	0.01
WQ7	2011-12-13	7.52		3.6	8	0.01
WQ7	2012-01-12	7.58	51.7	3.7	< 2	0.01
WQ7	2012-02-13	7.86	56	2.4	2	< 0.002
WQ7	2012-02-13	7.88		2.2	< 2	< 0.002
WQ7	2012-03-12	7.95	53	2.1	< 2	0.01
WQ7	2012-04-17	7.89	52.2	12.9	< 2	0.03
WQ7	2012-04-17	7.83		13	< 2	0.03
WQ7	2012-05-15	7.43	18.6	13.5	73	0.15
WQ7	2012-05-23	7.4	19.7	12.6	26	0.19
WQ7	2012-05-28	7.45	16.6	11.8	37	0.16
WQ7	2012-05-28	7.39		11.9	40	0.14
WQ7	2012-06-04	7.44	17.4	9.9	21	0.11
WQ7	2012-06-11	7.11	16.6	8.9	12	0.13
WQ7	2012-06-18	7.54	78.8	8.2	7	0.33
WQ7	2012-07-16	7.74	31.8	5.3	3	0.03

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ7	2012-07-16	7.65		5.6	4	0.02
WQ7	2012-08-13	7.82	39.8	5.4	< 2	0.02
WQ7	2012-08-13	7.86		5.5	2	0.02
WQ7	2012-09-17	7.83	50.8	11.9	< 2	0.01
WQ7	2012-10-16	7.86	54.3	9.2	< 2	0.01
WQ7	2012-11-12	7.87	50.8	3.7	< 2	0.01
WQ7	2012-11-12	7.77		3.8	< 2	0.01
WQ7	2012-12-10	7.82	59.5	2.8	< 2	0.01
WQ7	2013-01-15	7.66	63	2.9	5	0.01
WQ7	2013-01-15	7.64		3	2	0.01
WQ7	2013-02-13	7.78	59.1	3.1	3	0.01
WQ7	2013-02-13	7.77		3.4	< 2	0.01
WQ7	2013-03-12	7.8	66.6	2.2	3	0.01
WQ7	2013-04-16	7.79	51.9	7.1	< 2	0.02
WQ7	2013-04-16	7.74		7.2	< 2	0.02
WQ7	2013-05-14	7.16	16.5	11.8	< 2	0.19
WQ7	2013-05-21	7.28	18.1	9.4	7	0.12
WQ7	2013-05-28	7.4	21.2	10.3	15	0.17
WQ7	2013-06-04	7.35	20.9	10.4	14	0.13
WQ7	2013-06-04	7.37		10.5	15	0.13
WQ7	2013-06-11	7.46	24.2	8	6	0.08
WQ7	2013-06-18	7.46	24.6	10.7	10	0.11
WQ7	2013-06-18	7.48		10.7	12	0.11
WQ7	2014-04-13	7.63	50.4	6.7	28	0.02
WQ7	2014-07-02	7.51	37.4	6.3	6	0.02
WQ7	2014-09-24	7.85	64.2	2.7	<2	0.01
WQ7	2014-12-09	7.58	6.21	1.8	<2	<0.002
WQ7	2016-08-10	7.8	35.3	6.58	<3.0	0.03
WQ7	2016-08-16	7.61	40.4	5.37	<3.0	0.02
WQ7	2016-08-23	7.77	40.3	5.3	<3.0	0.02
WQ7	2016-08-31	7.7	41.5	5.65	<3.0	0.02
WQ7	2016-09-07	7.71	37.3	7.06	<3.0	0.02
WQ7	2017-04-12	7.89	55	<0.50	<3.0	0.01
WQ7	2017-05-11	7.4	22.7	14.8	12.4	0.17
WQ7	2017-05-11	7.38	22.2	14.9	11.6	0.16
WQ7	2017-06-07	7.49	19.6	9.93	<3.0	0.10
WQ7	2017-07-19	7.9	38.4	4.33	<3.0	0.01
WQ7	2017-08-30	7.97	51.8	3.25	<3.0	0.01
WQ7	2017-09-09	7.97	53.6	3.58	3.2	0.01
WQ7	2017-10-17	8	37.6	4.66	12.6	0.02
WQ7	2017-11-07	7.64	33	6.72	<3.0	0.04
WQ7	2017-11-07	7.73	33.1	6.7	3.7	0.04
WQ7	2017-12-11	7.61	37.2	4.62	<3.0	0.02
WQ7	2018-01-24	7.89	47.2	2.8	<3.0	0.01
WQ7	2018-02-28	7.89	52.2	2.38	<3.0	0.01
WQ7	2018-03-28	7.93	46.6	2.46	4.6	0.01
WQ7	2018-04-17	7.91	55.4	3.22	<3.0	0.01
WQ7	2018-05-16	7.33	12.5	12.3	46.6	0.15
WQ7	2018-05-16	7.35	12.8	13.8	59.3	0.16
WQ7	2018-05-30	7.58	20.9	8.61	5.5	0.08

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ7	2018-07-17	7.89	38.5	4.73	<3.0	0.02
WQ7	2018-07-17	7.83	39.3	4.83	<3.0	0.02
WQ7	2018-08-09	7.96	43.7	4.32	<3.0	0.01
WQ7	2018-09-12	8.05	51.1	2.98	<3.0	0.01
WQ7	2018-09-12	8.06	52.4	2.9	3.8	0.01
WQ7	2018-10-24	7.9	40	4.39	<3.0	0.01
WQ7	2018-10-24	7.9	41.5	4.45	<3.0	0.01
WQ7	2018-11-27	7.74	32.2	5.41	<3.0	0.03
WQ7	2018-12-19	7.82	39.7	3.59	<3.0	0.02
WQ7	2019-01-29	7.89	47.6	2.91	<3.0	0.01
WQ7	2019-01-29	7.97	47.3	2.84	<3.0	0.01
WQ7	2019-02-11	7.76	48.5	2.43	<3.0	0.01
WQ7	2019-03-14	7.95	55.9	1.95	<3.0	0.01
WQ7	2019-04-09	7.83	47	7.96	4.1	0.02
WQ7	2019-05-04	7.47	24.6	11.1	17.2	0.11
WQ7	2019-05-04	7.58	24.5	11.3	19	0.11
WQ7	2019-05-21	7.49	15.8	17	76	0.20
WQ7	2019-05-28	7.49	23.4	13	13.4	0.10
WQ7	2019-05-29	7.57	23.9	12.2	12.3	0.09
WQ7	2019-06-04	7.77	25.1	9.37	6.4	0.06
WQ7	2019-06-04	7.82	25	9.55	8.4	0.06
WQ7	2019-07-18	7.51	24.8	9.63	6	0.08
WQ7	2019-08-12	7.63	27.8	9.34	5.2	0.07
WQ7	2019-09-16	7.86	39.4	5.04	<3.0	0.02
WQ7	2019-10-22	7.69	31	8.1	<3.0	0.05
WQ7	2019-11-25	7.55	26.2	9.31	<3.0	0.09
WQ7	2019-12-17	7.56	33.5	4.95	<3.0	0.04
WQ7	2020-01-27	7.83	44.4	3.84	<3.0	0.02
WQ7	2020-02-19	7.86	44.6	3.36	<3.0	0.01
WQ7	2020-03-18	7.98	50.6	2.91	<3.0	0.01
WQ7	2020-04-07	7.72	58.7	2.48	<3.0	0.01
WQ7	2020-05-07	7.29	21.4	12.2	4.2	0.14
WQ7	2020-05-13	7.35	18	12.1	11.7	0.15
WQ7	2020-05-20	7.17	16	12.4	11.8	0.15
WQ7	2020-05-28	7.15	16.6	9.76	23.2	0.10
WQ7	2020-06-02	6.91	18.1	8.48	5.8	0.09
WQ7	2020-07-06	7.53	27.1	9.3	4.2	0.06
WQ7	2020-07-06	7.51	27.5	9.41	4.3	0.07
WQ7	2020-08-05	7.75	42.4	4.72	<3.0	0.02
WQ7	2020-08-11	7.85	39.1	5.32	<3.0	0.02
WQ7	2020-08-11	7.82	39.4	5.18	9.1	0.02
WQ7	2020-08-18	7.75	40.5	5.6	7.1	0.02
WQ7	2020-08-24	7.72	41	5.5	<3.0	0.02
WQ7	2020-09-02	7.88	42.4	5.25	<3.0	0.02
WQ3	2011-05-17	7.37	23.1	17.1	19	0.17
WQ3	2011-05-25	7.26	15	19.2	< 2	
WQ3	2011-05-31	6.98	13.6	13.5	2	0.16
WQ3	2011-06-07	7.25	16.9	10.9	3	0.11
WQ3	2011-06-14	7.34	20.4	8.8	3	0.08
WQ3	2011-07-19	7.34	25.5	7.3	< 2	0.06

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ3	2011-08-16	7.64	32.5	5.6	3	0.03
WQ3	2011-09-20	7.57	40.5	2.5	4	0.01
WQ3	2011-10-18	7.5	39.3	2.8	< 2	0.02
WQ3	2011-11-15	7.5	39.4	2.5	2	0.01
WQ3	2011-12-12	7.51	44.3	2.3	< 2	0.01
WQ3	2012-01-12	7.46	44.2	1.9	< 2	0.01
WQ3	2012-02-13	7.83	43.8	1.5	4	0.00
WQ3	2012-03-12	7.87	42.7	1.4	< 2	0.01
WQ3	2012-04-16	7.88	46.8	2.5	2	0.01
WQ3	2012-05-14	7.76	23.3	10.5	13	0.11
WQ3	2012-05-22	7.43	19.7	10.9	10	0.12
WQ3	2012-05-29	7.65	19.8	10.4	3	0.09
WQ3	2012-06-05	7.55	20.9	9.1	3	0.07
WQ3	2012-06-12	7.27	22.8	7.7	3	0.07
WQ3	2012-06-19	7.64	26.6	7	2	0.07
WQ3	2012-07-17	7.79	34.3	3.6	< 2	0.03
WQ3	2012-08-14	7.85	40.9	3.6	< 2	0.02
WQ3	2012-09-18	7.78	44	10.4	< 2	0.02
WQ3	2012-10-15	7.87	43.2	11.3	< 2	0.01
WQ3	2012-11-13	7.81	42.7	2.6	< 2	0.02
WQ3	2012-12-10	7.86	76.9	6.5	< 2	0.003
WQ3	2013-01-13	7.68	47.2	1.7	< 2	0.01
WQ3	2013-02-12	7.8	46.5	1.7	< 2	0.01
WQ3	2013-03-11	7.79	49.1	1.4	2	0.01
WQ3	2013-04-15	7.7	41.2	2.4	< 2	0.02
WQ3	2013-05-13	7.33	20.4	11.9	4	0.20
WQ3	2013-05-22	7.37	21.5	10.1	7	0.12
WQ3	2013-05-27	7.48	24.9	11.4	3	0.14
WQ3	2013-06-06	7.33	21.6	11.1	4	0.13
WQ3	2013-06-10	7.42	26.3	7.6	2	0.09
WQ3	2013-06-17	7.36	23.8	9.1	3	0.11
WQ3	2014-04-13	7.7	45.1	0.9	<2	0.01
WQ3	2014-04-13	7.73	45.4	2.7	4	0.01
WQ3	2014-07-02	7.55	38.2	3.9	2	0.03
WQ3	2014-09-24	7.81	50.7	2.2	3	0.01
WQ3	2014-12-09	7.7	48.6	1.3	<2	0.01
WQ3	2017-05-11	7.33	27.1	13	10.8	0.15
WQ3	2017-07-19	7.48	25.1	7.66	<3.0	0.06
WQ3	2017-09-06	7.75	40.6	11.3	<3.0	0.07
WQ3	2017-10-18	7.65	34.1	10.4	8.1	0.06
WQ3	2018-02-23	7.9	44.3	2.35	<3.0	0.01
WQ3	2018-05-29	7.63	24.3	9.77	<3.0	0.06
WQ3	2018-08-07	7.88	40.7	6.56	<3.0	0.03
WQ3	2018-11-29	7.69	34.2	5.19	<3.0	0.03
WQ3	2019-02-12	7.76	41.6	2.77	5.4	0.01
WQ3	2019-05-13	7.53	24.9	9.06	6.8	0.06
WQ3	2019-08-12	7.62	28.6	9.02	3.6	0.06
WQ3	2019-11-18	7.57	24.2	8.96	<3.0	0.09
WQ3	2020-02-12	7.81	36.2	2.46	3.8	0.02
WQ3	2020-05-14	7.18	18.6	11	3.8	0.09

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ3	2020-08-12	7.85	39.9	3.78	<3.0	0.02
WQ5	2011-05-17	7.07	17	22.1	7	0.25
WQ5	2011-05-17	7.03		21.7	11	0.31
WQ5	2011-05-25	6.91	9.9	16.5	5	
WQ5	2011-05-31	6.78	8.7	12.7	2	0.22
WQ5	2011-06-07	6.9	8.8	11.6	4	0.20
WQ5	2011-06-14	6.95	9.4	10.8	< 2	0.19
WQ5	2011-07-19	7.08	13.7	11.3	< 2	0.16
WQ5	2011-08-16	7.36	16.8	7.4	< 2	0.07
WQ5	2011-09-20	7.45	28.6	5.2	< 2	0.03
WQ5	2011-10-18	7.23	22.7	7.3	< 2	0.06
WQ5	2011-11-15	7.15	23.5	7.9	2	0.06
WQ5	2011-12-12	7.38	31.4	8	7	0.06
WQ5	2012-05-14	7.23	11.4	13.3	23	0.20
WQ5	2012-05-22	7.04	10.1	12.5	9	0.20
WQ5	2012-05-29	7.14	9.4	11.9	3	0.20
WQ5	2012-06-05	7.07	10.3	11.6	< 2	0.16
WQ5	2012-06-12	6.96	11.2	10.7	< 2	0.16
WQ5	2012-06-19	7.27	12	10.5	< 2	0.15
WQ5	2012-07-17	7.46	17.6	7.4	< 2	0.07
WQ5	2012-08-14	7.56	21	6.9	< 2	0.05
WQ5	2012-09-18	7.56	26.2	12	< 2	0.04
WQ5	2012-10-15	7.02	31.9	8.1	< 2	0.03
WQ5	2012-11-13	7.56	27.3	8.7	< 2	0.06
WQ5	2013-01-13	7.38	43.3	6.9	4	0.05
WQ5	2013-04-15	7.15	23.1	11	< 2	0.15
WQ5	2013-05-13	6.75	9.8	13.4	5	0.24
WQ5	2013-05-22	6.95	10.4	12.8	2	0.21
WQ5	2013-05-27	7.08	13.2	14	< 2	0.25
WQ5	2013-06-06	6.99	12	13.4	< 2	0.22
WQ5	2013-06-10	7.03	13	11.1	< 2	0.17
WQ5	2013-06-17	7.02	12.3	12.3	2	0.19
WQ5	2014-04-13	7.09	28.6	9.6	<2	0.09
WQ5	2014-07-02	7.16	18.7	8.4	<2	0.08
WQ5	2014-09-24	7.66	51.2	5	<2	0.02
WQ5	2014-12-08	7.23	37.1	5.3	<2	0.38
WQ5	2016-08-10	7.54	18.6	8.87	<3.0	0.07
WQ5	2016-08-16	7.51	21.9	7.43	<3.0	0.06
WQ5	2016-08-16	7.24	21.6	7.49	<3.0	0.06
WQ5	2016-08-23	7.44	23	6.57	<3.0	0.05
WQ5	2016-08-31	7.36	19.2	8.06	<3.0	0.06
WQ5	2016-08-31	7.37	19.3	8.11	<3.0	0.06
WQ5	2016-09-07	7.27	16.8	11.4	<3.0	0.07
WQ5	2017-05-10	7.3	17.8	15.2	8.5	0.17
WQ5	2017-07-19	7.74	21.4	6.96	<3.0	0.04
WQ5	2017-09-06	7.68	28.6	9.46	<3.0	0.05
WQ5	2017-10-18	7.41	15.2	10.7	<3.0	0.10
WQ5	2018-02-23	7.76	35.8	4.15	<3.0	0.03
WQ5	2018-05-29	7.49	18.2	10.7	3.8	0.10
WQ5	2018-08-07	7.79	33	7.6	<3.0	0.03
WQ5	2018-11-29	7.51	24.6	8	<3.0	0.06

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ5	2019-02-12	7.71	34.1	3.17	<3.0	0.02
WQ5	2019-05-13	7.19	14	12.7	8.2	0.16
WQ5	2019-08-12	7.4	18.3	11.8	5.8	0.12
WQ5	2019-11-18	7.18	14.3	13.5	<3.0	0.23
WQ5	2020-02-12	7.7	29.9	3.72	3	0.04
WQ5	2020-05-14	6.95	11.7	12.1	4.2	0.17
WQ5	2020-08-12	7.76	34.8	4.68	<3.0	0.02

Notes: Gray highlighted cells represent exceedances to the long-term British Columbia (BC) water quality guideline (WQGs) [BC ENV] 2001) of 0.05 mg/L; Gray highlighted cells and red font represent exceedances to both BC long-term and short-term (0.1 mg/L) WQGs.

Appendix C: Water Quality Predictions for Dissolved Aluminum

BW GOLD LTD

a subsidiary company of Artemis Gold Inc

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2007-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2007-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2007-03-01 0:00	0.010	0.0097	0.009	0.009	0.075	0.075
2007-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2007-05-01 0:00	0.205	0.199	0.181	0.180	0.170	0.170
2007-06-01 0:00	0.144	0.138	0.126	0.124	0.193	0.193
2007-07-01 0:00	0.053	0.053	0.052	0.051	0.076	0.076
2007-08-01 0:00	0.049	0.049	0.048	0.046	0.054	0.054
2007-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2007-10-01 0:00	0.043	0.047	0.047	0.042	0.058	0.058
2007-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2007-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2008-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2008-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2008-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2008-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2008-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2008-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2008-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2008-08-01 0:00	0.049	0.049	0.047	0.046	0.054	0.054
2008-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2008-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2008-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2008-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2009-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2009-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2009-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2009-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2009-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2009-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2009-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2009-08-01 0:00	0.049	0.049	0.047	0.046	0.054	0.054
2009-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2009-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2009-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2009-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2010-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2010-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2010-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2010-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2010-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2010-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2010-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2010-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2010-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2010-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2010-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2010-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2011-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2011-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2011-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2011-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2011-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2011-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2011-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2011-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2011-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2011-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2011-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2011-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2012-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2012-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2012-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2012-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2012-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2012-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2012-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2012-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2012-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2012-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2012-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2012-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2013-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2013-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2013-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2013-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2013-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2013-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2013-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2013-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2013-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2013-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2013-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2013-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2014-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2014-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2014-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2014-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2014-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2014-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2014-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2014-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2014-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2014-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2014-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2014-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2015-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2015-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2015-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2015-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2015-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2015-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2015-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2015-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2015-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2015-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2015-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2015-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2016-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2016-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2016-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2016-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2016-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2016-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2016-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2016-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2016-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2016-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2016-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2016-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2017-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2017-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2017-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2017-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2017-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2017-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2017-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2017-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2017-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2017-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2017-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2017-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2018-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2018-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2018-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2018-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2018-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2018-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2018-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2018-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2018-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2018-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2018-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2018-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2019-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2019-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2019-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2019-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2019-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2019-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2019-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2019-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2019-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2019-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2019-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2019-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2020-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2020-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2020-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2020-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2020-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2020-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2020-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2020-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2020-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2020-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2020-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2020-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2021-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2021-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2021-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2021-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2021-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2021-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2021-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2021-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2021-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2021-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2021-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2021-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2022-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2022-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2022-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2022-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2022-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2022-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2022-07-01 0:00	0.053	0.053	0.051	0.050	0.075	0.076
2022-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2022-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2022-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2022-11-01 0:00	0.064	0.064	0.063	0.059	0.062	0.062
2022-12-01 0:00	0.033	0.033	0.032	0.029	0.219	0.221
2023-01-01 0:00	0.022	0.022	0.020	0.017	0.047	0.047
2023-02-01 0:00	0.022	0.021	0.014	0.012	0.032	0.032
2023-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2023-04-01 0:00	0.022	0.021	0.019	0.017	0.118	0.119
2023-05-01 0:00	0.130	0.130	0.132	0.133	0.169	0.169
2023-06-01 0:00	0.144	0.138	0.126	0.125	0.192	0.193
2023-07-01 0:00	0.101	0.098	0.077	0.071	0.075	0.076
2023-08-01 0:00	0.078	0.075	0.068	0.060	0.054	0.054
2023-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2023-10-01 0:00	0.056	0.058	0.056	0.050	0.058	0.058
2023-11-01 0:00	0.050	0.051	0.051	0.047	0.062	0.062
2023-12-01 0:00	0.051	0.049	0.044	0.038	0.219	0.221
2024-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2024-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2024-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2024-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2024-05-01 0:00	0.028	0.031	0.041	0.054	0.169	0.170
2024-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2024-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2024-08-01 0:00	0.102	0.098	0.068	0.062	0.054	0.054
2024-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2024-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2024-11-01 0:00	0.077	0.076	0.071	0.065	0.062	0.062
2024-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2025-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2025-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2025-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2025-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2025-05-01 0:00	0.046	0.047	0.052	0.062	0.169	0.170
2025-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2025-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2025-08-01 0:00	0.102	0.098	0.068	0.062	0.054	0.054
2025-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2025-10-01 0:00	0.085	0.085	0.073	0.054	0.058	0.058
2025-11-01 0:00	0.075	0.074	0.069	0.064	0.062	0.062
2025-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2026-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2026-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2026-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2026-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2026-05-01 0:00	0.040	0.041	0.048	0.061	0.169	0.170
2026-06-01 0:00	0.142	0.138	0.126	0.124	0.192	0.193
2026-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2026-08-01 0:00	0.102	0.098	0.068	0.063	0.054	0.054
2026-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2026-10-01 0:00	0.083	0.083	0.073	0.054	0.058	0.058
2026-11-01 0:00	0.074	0.073	0.069	0.063	0.062	0.062
2026-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2027-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2027-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2027-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2027-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2027-05-01 0:00	0.036	0.037	0.044	0.056	0.169	0.170
2027-06-01 0:00	0.142	0.138	0.126	0.125	0.192	0.193
2027-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2027-08-01 0:00	0.102	0.098	0.068	0.063	0.054	0.054
2027-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2027-10-01 0:00	0.075	0.076	0.071	0.054	0.058	0.058
2027-11-01 0:00	0.060	0.060	0.058	0.054	0.062	0.062
2027-12-01 0:00	0.056	0.053	0.047	0.038	0.219	0.221
2028-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2028-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2028-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2028-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2028-05-01 0:00	0.037	0.038	0.045	0.056	0.169	0.170
2028-06-01 0:00	0.142	0.138	0.126	0.124	0.192	0.193
2028-07-01 0:00	0.101	0.098	0.077	0.072	0.076	0.076
2028-08-01 0:00	0.102	0.097	0.068	0.062	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2028-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2028-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2028-11-01 0:00	0.083	0.082	0.076	0.069	0.062	0.062
2028-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2029-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2029-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2029-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2029-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2029-05-01 0:00	0.039	0.040	0.047	0.060	0.169	0.170
2029-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2029-07-01 0:00	0.101	0.098	0.077	0.071	0.076	0.076
2029-08-01 0:00	0.102	0.097	0.068	0.061	0.054	0.054
2029-09-01 0:00	0.053	0.050	0.035	0.023	0.043	0.043
2029-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2029-11-01 0:00	0.110	0.106	0.078	0.071	0.062	0.062
2029-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2030-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2030-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2030-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2030-04-01 0:00	0.022	0.021	0.021	0.020	0.118	0.119
2030-05-01 0:00	0.033	0.036	0.046	0.062	0.169	0.170
2030-06-01 0:00	0.114	0.114	0.113	0.112	0.192	0.193
2030-07-01 0:00	0.101	0.098	0.077	0.070	0.076	0.076
2030-08-01 0:00	0.102	0.097	0.068	0.062	0.054	0.054
2030-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2030-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2030-11-01 0:00	0.088	0.087	0.078	0.070	0.062	0.062
2030-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2031-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2031-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2031-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2031-04-01 0:00	0.022	0.021	0.021	0.020	0.118	0.119
2031-05-01 0:00	0.032	0.034	0.044	0.057	0.169	0.170
2031-06-01 0:00	0.100	0.100	0.100	0.100	0.192	0.193
2031-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2031-08-01 0:00	0.102	0.098	0.068	0.062	0.054	0.054
2031-09-01 0:00	0.053	0.052	0.035	0.023	0.043	0.043
2031-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2031-11-01 0:00	0.081	0.081	0.074	0.066	0.062	0.062
2031-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2032-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2032-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2032-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2032-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2032-05-01 0:00	0.032	0.032	0.043	0.055	0.169	0.170
2032-06-01 0:00	0.098	0.098	0.098	0.098	0.192	0.193
2032-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2032-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2032-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2032-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2032-11-01 0:00	0.078	0.078	0.072	0.064	0.062	0.062
2032-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2033-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2033-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2033-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2033-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2033-05-01 0:00	0.079	0.079	0.084	0.091	0.169	0.170
2033-06-01 0:00	0.085	0.085	0.086	0.088	0.192	0.193
2033-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2033-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2033-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2033-10-01 0:00	0.057	0.057	0.055	0.049	0.058	0.058
2033-11-01 0:00	0.048	0.048	0.048	0.045	0.062	0.062
2033-12-01 0:00	0.045	0.045	0.039	0.034	0.219	0.221
2034-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2034-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2034-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2034-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2034-05-01 0:00	0.099	0.099	0.103	0.108	0.169	0.170
2034-06-01 0:00	0.094	0.094	0.095	0.095	0.192	0.193
2034-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2034-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2034-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2034-10-01 0:00	0.064	0.064	0.060	0.054	0.058	0.058
2034-11-01 0:00	0.053	0.053	0.052	0.048	0.062	0.062
2034-12-01 0:00	0.050	0.050	0.044	0.038	0.219	0.221
2035-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2035-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2035-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2035-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2035-05-01 0:00	0.086	0.086	0.091	0.097	0.169	0.170
2035-06-01 0:00	0.092	0.092	0.093	0.094	0.192	0.193
2035-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2035-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2035-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2035-10-01 0:00	0.078	0.078	0.070	0.054	0.058	0.058
2035-11-01 0:00	0.058	0.058	0.056	0.051	0.062	0.062
2035-12-01 0:00	0.050	0.050	0.043	0.037	0.218	0.221
2036-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2036-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2036-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2036-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2036-05-01 0:00	0.085	0.085	0.089	0.096	0.169	0.170
2036-06-01 0:00	0.093	0.093	0.093	0.094	0.192	0.193
2036-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2036-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2036-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2036-10-01 0:00	0.078	0.078	0.073	0.054	0.058	0.058
2036-11-01 0:00	0.056	0.056	0.054	0.050	0.062	0.062
2036-12-01 0:00	0.049	0.049	0.043	0.037	0.218	0.221
2037-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2037-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2037-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2037-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2037-05-01 0:00	0.084	0.084	0.089	0.096	0.169	0.170
2037-06-01 0:00	0.093	0.093	0.094	0.095	0.192	0.193
2037-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2037-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2037-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2037-10-01 0:00	0.074	0.074	0.067	0.054	0.058	0.058
2037-11-01 0:00	0.054	0.054	0.052	0.048	0.062	0.062
2037-12-01 0:00	0.049	0.048	0.043	0.037	0.218	0.221
2038-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2038-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2038-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2038-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2038-05-01 0:00	0.084	0.084	0.089	0.096	0.169	0.170
2038-06-01 0:00	0.093	0.093	0.094	0.095	0.192	0.193
2038-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2038-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2038-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2038-10-01 0:00	0.074	0.074	0.067	0.054	0.058	0.058
2038-11-01 0:00	0.054	0.054	0.053	0.048	0.062	0.062
2038-12-01 0:00	0.049	0.049	0.043	0.037	0.218	0.221
2039-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2039-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2039-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2039-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2039-05-01 0:00	0.085	0.085	0.090	0.097	0.169	0.170
2039-06-01 0:00	0.094	0.094	0.094	0.095	0.192	0.193
2039-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2039-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2039-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2039-10-01 0:00	0.075	0.075	0.068	0.054	0.058	0.058
2039-11-01 0:00	0.055	0.055	0.053	0.049	0.062	0.062
2039-12-01 0:00	0.050	0.050	0.044	0.038	0.218	0.221
2040-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2040-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2040-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2040-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2040-05-01 0:00	0.085	0.085	0.090	0.097	0.169	0.170
2040-06-01 0:00	0.094	0.094	0.094	0.095	0.192	0.193
2040-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2040-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2040-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2040-10-01 0:00	0.069	0.069	0.063	0.054	0.058	0.058
2040-11-01 0:00	0.055	0.055	0.053	0.049	0.062	0.062
2040-12-01 0:00	0.050	0.050	0.044	0.038	0.218	0.221
2041-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2041-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2041-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2041-04-01 0:00	0.022	0.021	0.020	0.018	0.118	0.119
2041-05-01 0:00	0.119	0.119	0.123	0.127	0.169	0.170
2041-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2041-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2041-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2041-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2041-10-01 0:00	0.042	0.042	0.042	0.036	0.058	0.058
2041-11-01 0:00	0.046	0.046	0.047	0.042	0.062	0.062
2041-12-01 0:00	0.051	0.051	0.044	0.036	0.218	0.221
2042-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2042-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2042-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2042-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2042-05-01 0:00	0.118	0.118	0.120	0.125	0.169	0.170
2042-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2042-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2042-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2042-09-01 0:00	0.053	0.052	0.035	0.023	0.042	0.043
2042-10-01 0:00	0.039	0.039	0.041	0.035	0.058	0.058
2042-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2042-12-01 0:00	0.050	0.050	0.043	0.036	0.218	0.221
2043-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2043-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2043-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2043-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2043-05-01 0:00	0.118	0.118	0.121	0.125	0.169	0.170
2043-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2043-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2043-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2043-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2043-10-01 0:00	0.040	0.040	0.041	0.035	0.058	0.058
2043-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2043-12-01 0:00	0.052	0.051	0.044	0.038	0.218	0.221
2044-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2044-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2044-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2044-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2044-05-01 0:00	0.118	0.118	0.121	0.125	0.169	0.170
2044-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2044-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2044-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2044-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2044-10-01 0:00	0.040	0.040	0.041	0.036	0.058	0.058
2044-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2044-12-01 0:00	0.052	0.052	0.044	0.037	0.218	0.221
2045-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2045-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2045-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2045-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2045-05-01 0:00	0.119	0.119	0.121	0.126	0.169	0.170
2045-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2045-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2045-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2045-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2045-10-01 0:00	0.043	0.043	0.043	0.037	0.058	0.058
2045-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2045-12-01 0:00	0.049	0.049	0.042	0.036	0.218	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2046-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2046-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2046-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2046-04-01 0:00	0.022	0.022	0.020	0.018	0.118	0.119
2046-05-01 0:00	0.112	0.112	0.115	0.119	0.169	0.170
2046-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2046-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2046-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2046-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2046-10-01 0:00	0.057	0.057	0.054	0.045	0.058	0.058
2046-11-01 0:00	0.045	0.045	0.046	0.042	0.062	0.062
2046-12-01 0:00	0.065	0.064	0.047	0.038	0.218	0.221
2047-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2047-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2047-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2047-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2047-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2047-06-01 0:00	0.112	0.111	0.111	0.111	0.192	0.193
2047-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2047-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2047-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2047-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2047-11-01 0:00	0.037	0.036	0.039	0.037	0.062	0.062
2047-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2048-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2048-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2048-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2048-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2048-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2048-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2048-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2048-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2048-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2048-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2048-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2048-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2049-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2049-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2049-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2049-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2049-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2049-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2049-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2049-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2049-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2049-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2049-11-01 0:00	0.037	0.036	0.039	0.037	0.062	0.062
2049-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2050-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2050-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2050-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2050-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2050-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2050-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2050-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2050-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2050-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2050-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2050-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2050-12-01 0:00	0.050	0.050	0.043	0.036	0.219	0.221
2051-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2051-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2051-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2051-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2051-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2051-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2051-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2051-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2051-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2051-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2051-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2051-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2052-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2052-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2052-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2052-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2052-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2052-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2052-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2052-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2052-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2052-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2052-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2052-12-01 0:00	0.048	0.048	0.042	0.036	0.219	0.221
2053-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2053-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2053-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2053-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2053-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2053-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2053-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2053-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2053-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2053-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2053-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2053-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2054-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2054-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2054-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2054-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2054-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2054-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2054-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2054-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2054-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2054-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2054-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2054-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2055-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2055-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2055-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2055-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2055-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2055-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2055-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2055-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2055-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2055-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2055-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2055-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2056-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2056-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2056-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2056-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2056-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2056-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2056-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2056-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2056-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2056-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2056-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2056-12-01 0:00	0.048	0.048	0.042	0.036	0.219	0.221
2057-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2057-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2057-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2057-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2057-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2057-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2057-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2057-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2057-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2057-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2057-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2057-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2058-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2058-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2058-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2058-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2058-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2058-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2058-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2058-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2058-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2058-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2058-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2058-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2059-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2059-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2059-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2059-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2059-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2059-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2059-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2059-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2059-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2059-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2059-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2059-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2060-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2060-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2060-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2060-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2060-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2060-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2060-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2060-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2060-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2060-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2060-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2060-12-01 0:00	0.048	0.048	0.042	0.036	0.219	0.221
2061-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2061-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2061-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2061-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2061-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2061-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2061-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2061-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2061-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2061-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2061-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2061-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2062-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2062-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2062-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2062-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2062-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2062-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2062-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2062-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2062-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2062-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2062-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2062-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2063-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2063-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2063-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2063-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2063-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2063-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2063-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2063-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2063-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2063-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2063-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2063-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2064-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2064-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2064-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2064-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2064-05-01 0:00	0.120	0.120	0.127	0.132	0.169	0.170
2064-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2064-07-01 0:00	0.071	0.071	0.062	0.055	0.076	0.076
2064-08-01 0:00	0.050	0.050	0.045	0.039	0.054	0.054
2064-09-01 0:00	0.046	0.046	0.035	0.023	0.043	0.043
2064-10-01 0:00	0.035	0.035	0.037	0.033	0.058	0.058
2064-11-01 0:00	0.046	0.046	0.046	0.042	0.062	0.062
2064-12-01 0:00	0.041	0.041	0.037	0.032	0.219	0.221
2065-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2065-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2065-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2065-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2065-05-01 0:00	0.164	0.164	0.162	0.161	0.169	0.170
2065-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2065-07-01 0:00	0.060	0.060	0.053	0.049	0.076	0.076
2065-08-01 0:00	0.043	0.043	0.039	0.036	0.054	0.054
2065-09-01 0:00	0.043	0.042	0.035	0.023	0.043	0.043
2065-10-01 0:00	0.036	0.036	0.037	0.034	0.058	0.058
2065-11-01 0:00	0.040	0.040	0.041	0.039	0.062	0.062
2065-12-01 0:00	0.038	0.038	0.034	0.030	0.218	0.221
2066-01-01 0:00	0.027	0.027	0.024	0.017	0.047	0.047
2066-02-01 0:00	0.025	0.024	0.014	0.012	0.032	0.032
2066-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2066-04-01 0:00	0.016	0.016	0.016	0.015	0.118	0.119
2066-05-01 0:00	0.105	0.106	0.113	0.119	0.169	0.170
2066-06-01 0:00	0.103	0.103	0.102	0.103	0.192	0.193
2066-07-01 0:00	0.041	0.041	0.039	0.037	0.076	0.076
2066-08-01 0:00	0.023	0.023	0.023	0.023	0.054	0.054
2066-09-01 0:00	0.015	0.015	0.015	0.015	0.043	0.043
2066-10-01 0:00	0.015	0.015	0.017	0.017	0.058	0.058
2066-11-01 0:00	0.017	0.017	0.021	0.022	0.062	0.062
2066-12-01 0:00	0.012	0.012	0.013	0.013	0.218	0.221
2067-01-01 0:00	0.012	0.012	0.012	0.012	0.047	0.047
2067-02-01 0:00	0.012	0.012	0.012	0.012	0.032	0.032
2067-03-01 0:00	0.012	0.012	0.011	0.009	0.074	0.075
2067-04-01 0:00	0.011	0.011	0.012	0.012	0.118	0.119
2067-05-01 0:00	0.076	0.076	0.081	0.086	0.169	0.170
2067-06-01 0:00	0.042	0.042	0.046	0.052	0.192	0.193
2067-07-01 0:00	0.017	0.017	0.017	0.017	0.076	0.076
2067-08-01 0:00	0.014	0.014	0.015	0.015	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2067-09-01 0:00	0.006	0.006	0.007	0.008	0.043	0.043
2067-10-01 0:00	0.015	0.015	0.016	0.016	0.058	0.058
2067-11-01 0:00	0.016	0.016	0.020	0.021	0.062	0.062
2067-12-01 0:00	0.007	0.007	0.010	0.010	0.218	0.221
2068-01-01 0:00	0.005	0.005	0.006	0.007	0.047	0.047
2068-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2068-03-01 0:00	0.003	0.003	0.004	0.005	0.074	0.075
2068-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2068-05-01 0:00	0.076	0.076	0.081	0.087	0.170	0.170
2068-06-01 0:00	0.043	0.043	0.048	0.053	0.193	0.193
2068-07-01 0:00	0.017	0.017	0.017	0.017	0.076	0.076
2068-08-01 0:00	0.014	0.014	0.015	0.015	0.054	0.054
2068-09-01 0:00	0.006	0.006	0.007	0.008	0.043	0.043
2068-10-01 0:00	0.015	0.015	0.017	0.017	0.058	0.058
2068-11-01 0:00	0.016	0.017	0.020	0.022	0.062	0.062
2068-12-01 0:00	0.007	0.008	0.010	0.011	0.220	0.221
2069-01-01 0:00	0.005	0.005	0.006	0.007	0.047	0.047
2069-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2069-03-01 0:00	0.003	0.003	0.004	0.005	0.075	0.075
2069-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2069-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2069-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2069-07-01 0:00	0.017	0.017	0.017	0.017	0.076	0.076
2069-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2069-09-01 0:00	0.006	0.006	0.007	0.008	0.043	0.043
2069-10-01 0:00	0.015	0.016	0.017	0.017	0.058	0.058
2069-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2069-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2070-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2070-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2070-03-01 0:00	0.003	0.003	0.004	0.005	0.075	0.075
2070-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2070-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2070-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2070-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2070-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2070-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2070-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2070-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2070-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2071-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2071-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2071-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2071-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2071-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2071-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2071-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2071-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2071-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2071-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2071-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2071-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2072-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2072-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2072-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2072-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2072-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2072-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2072-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2072-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2072-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2072-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2072-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2072-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2073-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2073-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2073-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2073-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2073-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2073-06-01 0:00	0.044	0.045	0.048	0.054	0.193	0.193
2073-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2073-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2073-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2073-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2073-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2073-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2074-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2074-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2074-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2074-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2074-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2074-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2074-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2074-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2074-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2074-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2074-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2074-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2075-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2075-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2075-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2075-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2075-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2075-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2075-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2075-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2075-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2075-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2075-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2075-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2076-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2076-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2076-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2076-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2076-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2076-06-01 0:00	0.044	0.045	0.050	0.055	0.193	0.193
2076-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2076-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2076-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2076-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2076-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2076-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2077-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2077-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2077-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2077-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2077-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2077-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2077-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2077-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2077-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2077-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2077-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2077-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2078-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2078-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2078-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2078-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2078-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2078-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2078-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2078-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2078-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2078-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2078-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2078-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2079-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2079-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2079-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2079-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2079-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2079-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2079-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2079-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2079-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2079-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2079-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2079-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2080-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2080-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2080-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2080-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2080-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2080-06-01 0:00	0.044	0.045	0.050	0.055	0.193	0.193
2080-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2080-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2080-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2080-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2080-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2080-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2081-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2081-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2081-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2081-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2081-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2081-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2081-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2081-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2081-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2081-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2081-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2081-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2082-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2082-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2082-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2082-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2082-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2082-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2082-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2082-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2082-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2082-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2082-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2082-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2083-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2083-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2083-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2083-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2083-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2083-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2083-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2083-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2083-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2083-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2083-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2083-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2084-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2084-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2084-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2084-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2084-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2084-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2084-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2084-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2084-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2084-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2084-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2084-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2085-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2085-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2085-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2085-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2085-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2085-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2085-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2085-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2085-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2085-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2085-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2085-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2086-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2086-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2086-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2086-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2086-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2086-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2086-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2086-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2086-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2086-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2086-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2086-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2087-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2087-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2087-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2087-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2087-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2087-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2087-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2087-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2087-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2087-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2087-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2087-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2088-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2088-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2088-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2088-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2088-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2088-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2088-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2088-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2088-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2088-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2088-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2088-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2089-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2089-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2089-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2089-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2089-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2089-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2089-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2089-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2089-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2089-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2089-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2089-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2090-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2090-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2090-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2090-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2090-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2090-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2090-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2090-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2090-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2090-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2090-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2090-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2091-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2091-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2091-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2091-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2091-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2091-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2091-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2091-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2091-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2091-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2091-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2091-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2092-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2092-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2092-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2092-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2092-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2092-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2092-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2092-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2092-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2092-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2092-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2092-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2093-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2093-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2093-03-01 0:00	0.004	0.004	0.004	0.005	0.075	0.075
2093-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2093-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2093-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2093-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2093-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2093-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2093-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2093-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2093-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2094-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2094-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2094-03-01 0:00	0.004	0.004	0.004	0.005	0.075	0.075
2094-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2094-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2094-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2094-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2094-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2094-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2094-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2094-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2094-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2095-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2095-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2095-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2095-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2095-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2095-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2095-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2095-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2095-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2095-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2095-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2095-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2096-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2096-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2096-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2096-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2096-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2096-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2096-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2096-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2096-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2096-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2096-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2096-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2097-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2097-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2097-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2097-04-01 0:00	0.008	0.009	0.009	0.010	0.119	0.119
2097-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2097-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2097-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2097-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2097-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2097-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2097-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2097-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2098-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2098-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2098-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2098-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2098-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2098-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2098-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2098-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2098-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2098-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2098-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2098-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2099-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2099-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2099-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2099-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2099-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2099-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2099-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2099-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2099-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2099-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2099-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2099-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2100-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2100-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2100-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2100-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2100-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2100-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2100-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2100-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2100-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2100-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2100-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2100-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2101-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2101-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2101-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2101-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2101-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2101-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2101-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2101-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2101-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2101-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2101-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2101-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2102-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2102-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2102-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2102-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2102-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2102-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2102-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2102-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2102-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2102-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2102-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2102-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2103-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2103-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2103-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2103-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2103-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2103-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2103-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2103-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2103-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2103-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2103-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2103-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2104-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2104-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2104-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2104-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2104-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2104-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2104-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2104-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2104-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2104-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2104-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2104-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2105-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2105-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2105-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2105-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2105-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2105-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2105-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2105-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2105-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2105-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2105-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2105-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2106-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2106-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2106-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2106-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2106-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2106-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2106-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2106-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2106-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2106-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2106-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2106-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2107-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2107-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2107-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2107-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2107-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2107-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2107-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2107-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2107-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2107-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2107-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2107-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2108-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2108-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2108-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2108-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2108-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2108-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2108-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2108-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2108-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2108-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2108-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2108-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2109-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2109-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2109-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2109-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2109-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2109-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2109-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2109-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2109-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2109-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2109-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2109-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2110-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2110-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2110-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2110-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2110-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2110-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2110-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2110-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2110-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2110-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2110-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2110-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2111-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2111-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2111-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2111-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2111-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2111-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2111-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2111-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2111-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2111-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2111-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2111-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2112-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2112-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2112-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2112-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2112-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2112-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2112-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2112-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2112-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2112-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2112-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2112-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2113-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2113-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2113-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2113-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2113-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2113-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2113-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2113-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2113-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2113-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2113-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2113-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2114-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2114-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2114-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2114-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2114-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2114-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2114-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2114-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2114-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2114-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2114-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2114-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2115-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2115-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2115-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2115-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2115-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2115-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2115-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2115-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2115-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2115-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2115-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2115-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2116-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2116-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2116-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2116-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2116-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2116-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2116-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2116-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2116-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2116-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2116-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2116-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2117-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2117-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2117-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2117-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2117-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2117-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2117-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2117-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2117-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2117-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2117-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2117-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2118-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2118-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2118-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2118-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2118-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2118-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2118-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2118-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2118-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2118-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2118-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2118-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2119-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2119-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2119-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2119-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2119-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2119-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2119-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2119-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2119-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2119-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2119-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2119-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2120-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2120-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2120-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2120-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2120-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2120-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2120-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2120-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2120-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2120-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2120-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2120-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2121-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2121-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2121-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
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2121-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2121-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2122-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2122-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2122-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
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2122-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
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2123-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
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2123-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
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2123-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2123-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2123-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2124-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2124-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2124-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2124-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2124-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2124-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2124-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2124-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2124-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2124-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
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2124-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2125-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2125-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2125-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
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2125-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2125-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2126-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2126-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2126-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
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2128-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2128-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2128-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
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2128-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2128-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2128-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
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2129-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
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2129-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2130-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2130-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
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2131-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2131-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
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Blackwater Gold Project Dissolved Aluminum Science Based Environmental Benchmark Submission Summary

Prepared for:
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Project No. A599-1

November 4, 2021

Executive Summary

BW GOLD LTD

a subsidiary company of Artemis Gold Inc

Executive Summary

This memorandum presents the Science Based Environmental Benchmark (SBEB) submission summary proposed for dissolved aluminum (D-Al) in the receiving environment for the Blackwater Gold (BW) Project (the Project), owned by BW Gold Ltd. (a subsidiary of Artemis Gold Inc.). The Project is a proposed open pit gold mine located on the Nechako Plateau in central British Columbia (BC), approximately 110 km southwest of Vanderhoof and 160 km southwest of the city of Prince George. The mine footprint will mainly occur within two catchments: the headwaters of the Davidson Creek and, to lesser extent, Creek 661. Creek 661 flows into Chedakuz Creek, which flows into Tatelkuz Lake. Davidson Creek originates in the summit area of Mount Davidson and reports to Chedakuz Creek downstream of Tatelkuz Lake and upstream of the Turtle Creek confluence.

Baseline surface water quality monitoring in the Project area identified concentrations of D-Al routinely above BC short-term and long-term water quality guidelines (WQGs) in Davidson Creek and Creek 661. Condition 26 of the Environmental Assessment Certificate M19-01 for the Blackwater Gold Project states that BC water quality guidelines (WQGs) or approved SBEBs must not be exceeded in the mines receiving environment. Further, a problem formulation and conceptual model developed as part of the SBEB Development Plan (Lorax 2021), the operable pathway applicable to D-Al relates to surface water. Thus, the development of an SBEB is warranted for D-Al. The most appropriate approach for the development of a D-Al SBEB for Davidson Creek and Creek 661 is the background concentration procedure, as background concentrations of D-Al are naturally elevated and generally the exceed applicable WQGs for this element. In this approach, the upper limits of background concentration are determined using the 95th percentile plus 20% background including seasonality in D-Al concentrations. The proposed D-Al SBEBs are as follows:

Davidson Creek:

1. 0.26 mg/L from April 1 to July 31,
2. 0.11 mg/L from August 1 to December 31.

Creek 661:

1. 0.27 mg/L from April 1 to July 31,
2. 0.15 mg/L from August 1 to December 31.

The BC WQG for D-Al is proposed to occur outside of these windows.

In support of BW Gold Ltd.'s Joint Application for *Mines Act* and *Environmental Management Act* permits, a predictive water balance and water quality model was developed that included predictions for D-Al in the Project receiving environment. Predicted D-Al concentrations screened against the proposed SBEB for Davidson Creek remain below the SBEB value through the Construction and Operations mine phases. For Creek 661, predicted D-Al concentrations exceed SBEB values mostly in March and December. These exceedances are driven by background sources, rather than mine-related effects.

The proposed D-Al SBEB is implicitly protective of water for the purpose of source drinking water, in that the proposed values are more stringent than guidelines for drinking water (guidelines values for human and wildlife receptors are 9.5 mg D-Al/L and 5 T-Al mg/L, respectively). Based on this, the proposed SBEB values are expected to protect aquatic, human and wildlife receptors against adverse effects that may occur due to D-Al exposures.

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1. Overview

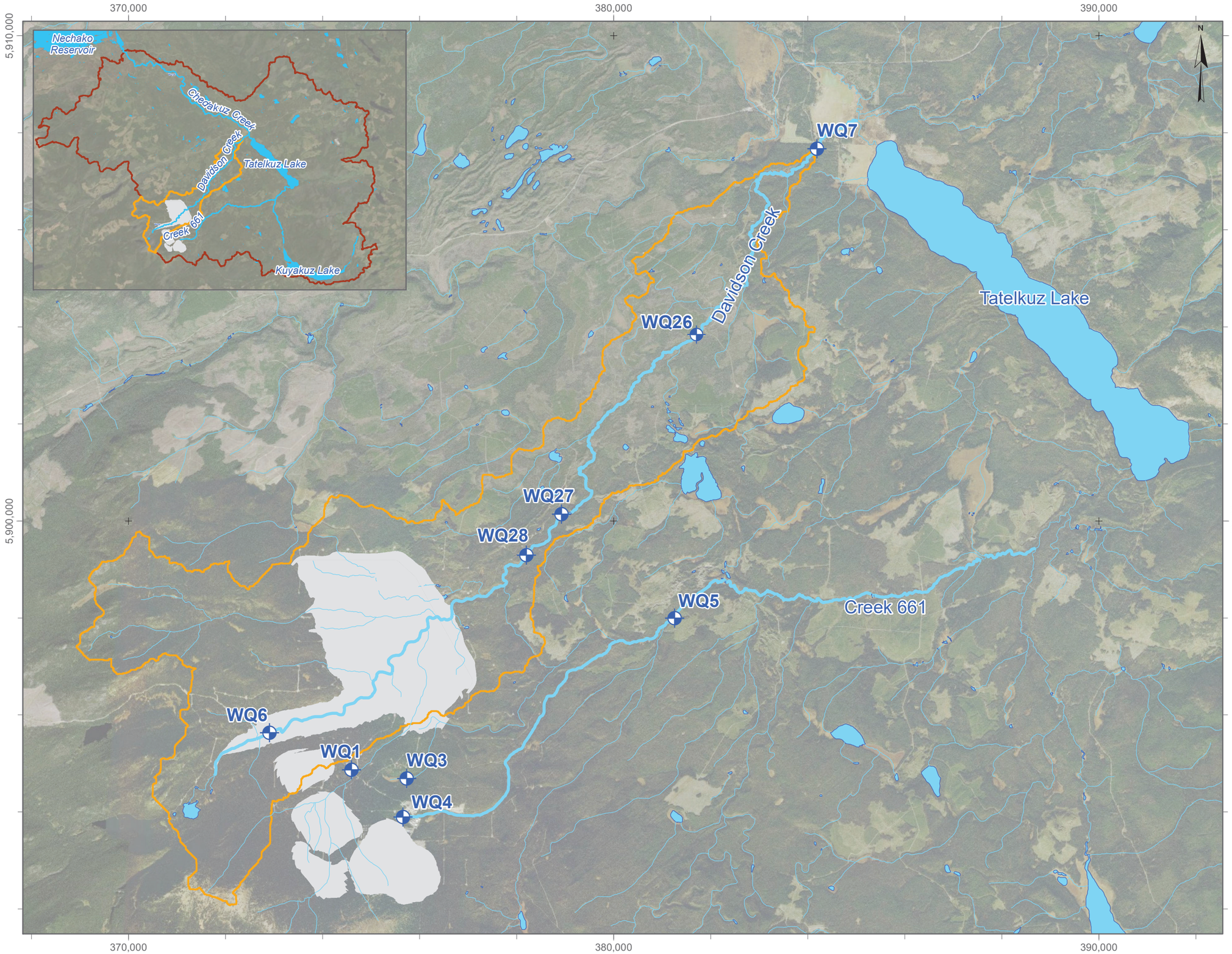
BW GOLD LTD
a subsidiary company of Artemis Gold Inc

1. Overview

This document presents the summary submission for the proposed dissolved aluminum (D-Al) Science Based Environmental Benchmark (SBEB) applicable to receiving environment in the Blackwater Gold Mine Project (the Project), owned by BW Gold Ltd. (a subsidiary of Artemis Gold Inc.). Condition 26 of Schedule B of the Environmental Assessment (EA) Certificate (#M19-01) for the Project states that water quality in Davidson Creek and Creek 661 must meet British Columbia (BC) water quality guidelines (WQGs) or approved SBEBs over the course of the proposed mine life. Baseline surface water quality monitoring in the Project area identified concentrations of D-Al routinely above BC short-term and long-term BC WQGs in Davidson Creek and Creek 661, thus warranting the development of an SBEB for this element. (Appendix C). A meeting between BW Gold, its consultants, and the BC Ministry of Environment and Climate Change Strategy (BC ENV) on April 21, 2021 was held to discuss the approach and documentation requirements to apply for the SBEB, per BC ENV (2016). The SBEB derivation checklists (namely Appendices A and B of BC ENV [2016]) completed by BW Gold Ltd. were sent to BC ENV in advance of submitting the SBEB development plan and submission of technical documents for review.

The Project is a proposed open pit gold mine located on the Nechako Plateau in central BC, approximately 110 km southwest of Vanderhoof and 160 km southwest of the city of Prince George. The mine footprint will mainly occur within two catchments: the headwaters of the Davidson Creek and, to lesser extent, Creek 661 (Figure 1-1).

Creek 661 flows from the north-east side of Mount Davidson into Chedakuz Creek, which flows into Tatelkuz Lake (Figure 1-1). Davidson Creek originates in the summit area of Mount Davidson and reports to Chedakuz Creek downstream of Tatelkuz Lake and upstream of the Turtle Creek confluence (Figure 1-1). From the Davidson Creek confluence, Chedakuz Creek flows north-west and into the Nechako Reservoir, which was created in 1952 through the construction of the Kenney Dam on the Nechako River.



LEGEND

- SWQ Monitoring Location
- Mine Infrastructure Footprint (Aug-08-2020)
- Davidson Creek Catchment
- Chekadusz Creek Catchment

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:75,000

0 2 4 Km

DATE SAVED:	Mar 15, 2021
DRAWN BY:	AL
REVIEWED:	MG
VERSION:	1

CLIENT:

ARTEMIS GOLD INC

LORAX ENVIRONMENTAL

PROJECT:

Blackwater Gold Project

TITLE:

Water quality monitoring stations for Davidson Creek and Creek 661

PROJECT #: A599 *FIGURE:* 1-1

P:\@Drafting\Blackwater\Drafting Figures\MXD\SWQ_Monitoring_20210315.mxd

The mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation (STN) and Tsilhqot'in Nation (TN). Other components of the Project, including the existing Kluskus and Kluskus-Ootsa FSRs and proposed transmission line, cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation and Yekooche First Nation (EAO 2019). There are 11 populated reserves near the Project. The closest reserve to the mine site is LDN Tatelkus Lake #28, located approximately 15 km to the northeast of the mine site. Current use of land and resources for traditional purposes by Indigenous peoples include fishing, hunting, trapping, gathering, and the use of habitations, trails, and cultural and spiritual sites (ERM 2020).

This document supports the proposed D-Al SBEB that will be submitted as part of BW Gold Ltd.'s Joint Application for *Mines Act* and *Environmental Management Act* permits (the Joint Application). The checklist for the SBEB submission requirements is provided in Appendix A. This document is organized as follows:

- Section 2 of this document summarizes the problem formulation and conceptual model summary for the Project;
- Section 3 presents general background information on the environmental fate of D-Al in aquatic environments, followed by catchment-specific information for Davidson Creek and Creek 661;
- Section 4 describes the approach used to calculate D-Al SBEBs for the two creeks using the background concentration procedure;
- Section 5 evaluates the applicability of the proposed SBEB, including identified uncertainties; and
- Section 6 describes proposed monitoring programs and adaptive management plans for receiving aquatic environments.

2. Summary of Problem Formulation

BW GOLD LTD
a subsidiary company of Artemis Gold Inc

2. Summary of Problem Formulation

A problem formulation and conceptual model exercise was conducted in support of the development of the D-Al SBEBs (Lorax 2021), per ENV guidance (BC ENV 2016). The problem formulation exercise evaluates parameters of potential concern (POPCs), receptors of concern, and exposure pathways applicable to the Project area. These three components were integrated into a conceptual model that identifies operable pathways of POPC exposure through relevant environmental media to receptors. A full description of the conceptual model and problem formulation for the Project is provided in Lorax (2021) and briefly described below. The applicable conceptual model diagram is provided in Figure 2-1.

Dissolved Al concentrations at monitoring stations located in Davidson Creek and Creek 661 routinely show values above the BC WQGs for several months of the year (Appendix B). Dissolved Al was the only identified POPC for the Project and for which a site-specific benchmark (*i.e.*, SBEB) is proposed based on elevated background concentrations. The focus of the problem formulation is therefore applicable to background sources of D-Al that may be transported into the aquatic and/or terrestrial environments (*e.g.,* weathering and erosion, runoff and atmospheric deposition [*e.g.*, dust]).

Identified receptors of concern include:

- Aquatic Receptors: Aquatic primary producers (including semi-aquatic plants), invertebrates, fish and amphibians.
- Widlife Receptors: Soil biota, birds and mammals.
- Human Receptors: Temporal site users (Indigenours and non-Indigenous) including adults and children of all ages.

Exposure pathways include direct contact with surface water (aquatic receptors) and drinking intake (human and wildlife receptors). Soils, atmospheric deposition and sediments are considered minor/inoperable pathways with a lower likelihood of contributing to adverse effects caused by D-Al exposure.

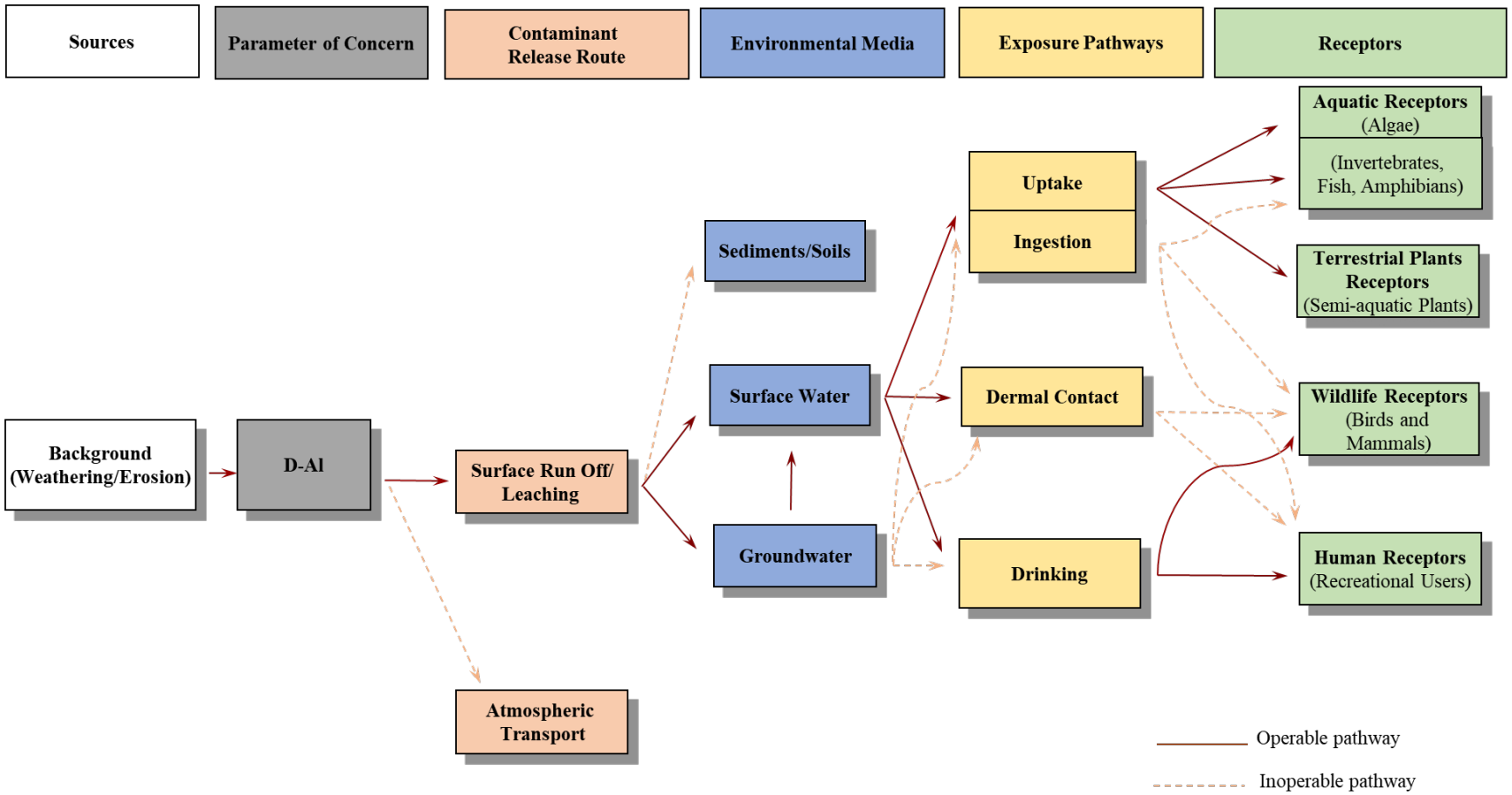


Figure 2-1: Conceptual Model Blackwater Gold Project for Dissolved Aluminum.

3. Receiving Aquatic Systems

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3. Receiving Aquatic Systems

Based on the results of the problem formulation described in the previous section, the operable pathway applicable to D-Al relates mainly to surface water, including drinking water. As such, the section below discusses the SBEB derivation for both Davidson Creek (Section 3.3) and Creek 661 (Section 3.4)

3.1 Aluminum in Aquatic Environments

Aluminum is highly abundant in the Earth's crust, resulting in high soil enrichment in the form of aluminosilicate minerals and hydroxides that subsequently enter aquatic systems through weathering processes. In circumneutral aquatic environments, the solubility of D-Al is largely controlled by the formation of colloidal $Al(OH)_3$. Dissolved Al readily forms complexes with elements such as chloride, fluoride, sulphate, nitrate, phosphate, and negatively charged compounds such as organic acids and clays, thus decreasing its toxicity (ATSDR 2008). Dissolved organic carbon is also known to be an important toxicity modifying factor due to its influence on the complexation of Al. This allows waters with high organic content to be suitable for fish even at high Al concentration and low pH (BC Ministry of Environment and Climate Change Strategy [ENV] 2001).

In low-pH waters (<6), the solubility of Al increases, thus increasing its potential toxicity (Canadian Council of Resource and Environment Ministers [CCREM] 1987). It has also been demonstrated that hardness can act as a modifying factor in moderately alkaline water (Gundersen *et al.* 1994). Aluminum does not biomagnify through the food chain and tissue accumulation greatly depends on the presence of complexation agents (BC ENV 2001). However, accumulation of Al in biota tissues is considered generally low (ATSDR 2008).

3.1.1 Toxicity to Aquatic Organisms

For the purpose of this plan, a review of Al chronic toxicity to aquatic organisms is summarized here, focusing on toxicological literature in which studies were conducted at pH ≥ 6.5, as the receiving environment for the Project is characterized by circumneutral pH. Differentiation of T-Al or D-Al exposures in reported studies is included when available. With respect to fish, an effect concentration for a 44 day growth of 520 µg/L for rainbow trout fingerlings exposed to D-Al was reported by Freeman and Everhart (1971). Aluminum appears to have no effect on egg fertilization, but mortality was observed during egg maturation at T-Al concentrations of 5,200 µg/L (Freeman and Everhart 1971). For invertebrates, mortality occurred in second and third instar chironomid *Tanytarsus dissimilis* larvae after 55 days of exposure to an Al concentration of 800 µg/L (pH 6.8; [Lamb and Bailey 1981]). However, other authors reported no effect in several

chironomids species exposed to Al concentrations ranging from 200 to 20,000 µg/L (at several pH values ranging from 4 to 6.5) (CCREM 1987). *Daphnia magna* showed mortality and reproductive impairment after three weeks of exposure at Al concentrations of 1,400 µg/L and 320 µg/L, respectively (pH 7.7) (CCREM 1987). Schofield and Trojnar (1980, as referenced in CCREM 1987) reported reproductive impairment in *D. magna* at Al concentrations of 680 µg/L (pH 6.5-7.5).

Toxicity of Al to aquatic plants and algae is highly variable due to the development of tolerance in exposed algae and plants (CCREM 1987). A reduction in root growth was reported for *Myriophyllum spicatum L.* at an Al concentration of 2,500 µg/L and a circumneutral pH (Stanley 1974). For *Selenastrum capricornutum* biomass reduction was reported at T-Al concentrations of 570 and 460 µg Al/L and pH of 7.6 and 8.2, respectively. The algae also showed reduced growth after 14 days of exposure to 990 µg Al/L at pH 7. A 96-hour growth inhibition was reported for *Scenedesmus quadricauda* exposed to 1,500 µg Al/L (pH 7.5-7.8) (CCREM 1987). Decreased photosynthetic activity in algae at Al concentrations of 380 µg/L were reversed by addition of organic ligands (CCREM 1987). Growth inhibition was reported in *Chlorella vulgaris* and *Cyclotella meneghiniana* after exposure to Al concentrations of 4,000 µg/L (at pH 7) and 810 µg/L (at pH 8), respectively (BC ENV 2001).

3.2 Regulatory framework

The BC WQG for Al applies to the dissolved metal fraction (Ministry of Environment and Climate Change Strategy Province of British Columbia [BC ENV] 2001). The long-term and short-term guidelines for D-Al are 50 µg/L and 100 µg/L, respectively, for water bodies with pH values greater than or equal to 6.5 (BC ENV 2001). At pH values less than 6.5, both guidelines are lower and pH dependent. Additional WQGs for Al applicable to the Project include drinking/aesthetics (9.5 mg D-Al/L; BC ENV 2020), and wildlife/livestock/irrigation (5 mg T-Al/L) (BC ENV 2001).

3.3 Davidson Creek

A detailed description of site conditions in Davidson Creek is provided in Lorax (2021) and briefly described below. Davidson Creek flows northeast and joins Chedakuz Creek downstream of Tatelkuz Lake, which flows generally northwest, and discharges into the Nechako Reservoir. Davidson Creek is a third order stream with an approximate drainage area of 77 km^2. Aquatic life is identified as the primary water use for Davidson Creek. Other water uses include wildlife, drinking water (limited to recreational/traditional use [*e.g.,* occasional fishing, hunting, trapping, or gathering]), and agricultural use, the latter of which is limited to the lowest reach of Davidson Creek near its confluence with Chedakuz Creek. Forestry has also occurred throughout the catchment.

Fish habitat quality is ranked as high for most of Davidson Creek (AMEC 2013a). Twelve fish species have been observed within the Project area with rainbow trout (*Oncorhynchus mykiss*) and kokanee salmon (*Oncorhynchus nerka*) as the most relevant species for Davidson Creek (AMEC 2015). No endangered, threatened, or vulnerable fish species were identified. Periphyton and benthic invertebrate communities in Davidson Creek are typical of the region and corresponding reference locations. Periphyton communities are dominated by diatoms and cyanobacteria with the presence of some green algae (chlorophytes) in mid reaches of Davidson Creek (AMEC 2015). Benthic invertebrate community metrics similarly reflect a range of interannual and spatial variation, but generally contain typical, representative taxa (*e.g.*, ephemeroptera, plecoptera, trichoptera [EPT taxa], chironomidae) (AMEC 2015).

Davidson Creek sediments are dominated by large particle sizes composed mainly of gravel and sand with small percentage of silt and clay. Metal concentrations in samples collected within the Project area show similar metal concentrations to those observed in the region. Exceedances of applicable sediment guidelines for arsenic, cadmium, manganese, nickel and zinc within the Davidson Creek watershed represent natural signatures (AMEC 2013b).

With respect to water quantity and quality, surface flows in the study area are influenced by the regional climate characterized by brief, warm summers and long cold winters. Peak stream flows occur in May, with low flows observed in February and March (annual hydrograph at hydrometric station H4B (water quality station WQ26) shown in Figure 3-1 for reference). Late summer and fall flows are defined by intermittent rain events.

Several baseline surface water quality monitoring stations have been established in Davidson Creek, including WQ1, WQ6, and WQ10 in the upper reaches, and WQ28, WQ27, WQ26, and WQ7 in the mid- and lower-reaches. Water quality is generally characterized by circum-neutral to slightly alkaline pH, and very soft to moderately soft water hardness. Concentrations of major ions and trace elements are typically low, although dissolved organic carbon (DOC) and total metal concentrations respond to the annual hydrograph showing increases in conjunction with higher flows and total suspended solids (TSS) during freshet (ERM 2021).

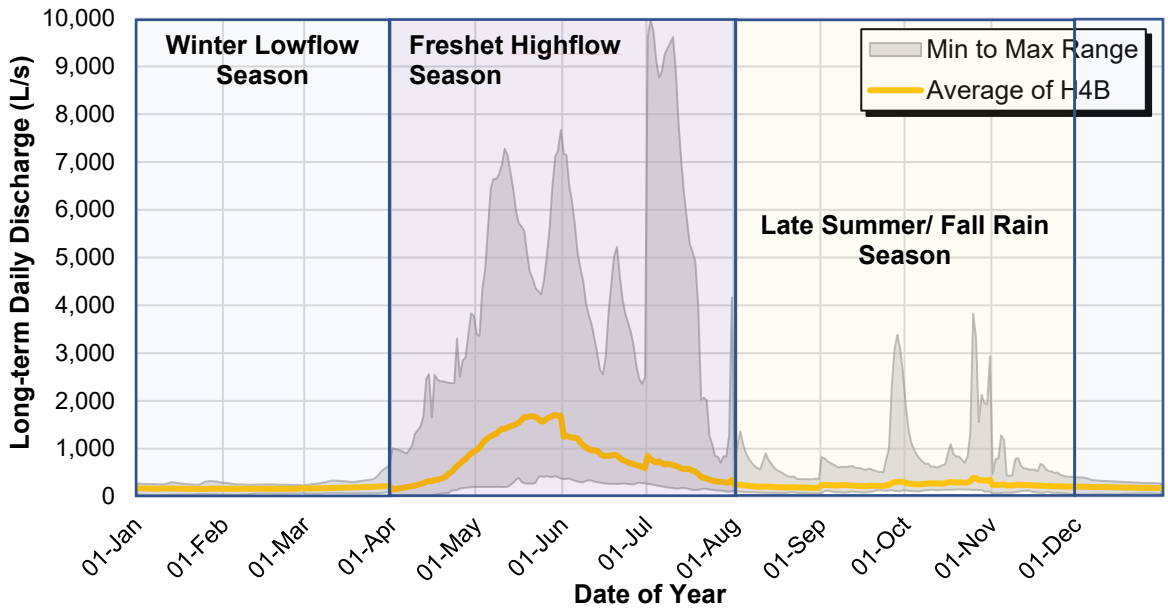

Figure 3-1: Davidson Creek mean, minimum, and maximum annual flows for water quality station WQ26 (hydrology station H4B) during winter low flow (blue shading), freshet high flow (purple), and late summer flow (yellow shading). Source: Knight Piesold (2021)

Dissolved Al concentrations are notably elevated for several months of the year. Mean D-Al concentrations for all Davidson Creek stations downstream of the proposed Project footprint (WQ28, WQ27, WQ26 and WQ7) exceed the long-term BC WQG, and corresponding 95th percentiles for all stations exceed the short-term BC WQG (Table 3-1; Appendix B). Other stations established upgradient of WQ28 on Davidson Creek (*e.g.*, WQ1, WQ6, and WQ10) will be engulfed by Project components and are therefore omitted from this analysis.

Table 3-1:
Davidson Creek descriptive statistics for dissolved aluminum concentration and pH at stations located downstream of the proposed Project footprint.

Station	Number of Samples	D-Al (mg/L)				pH (pH units)		D-Al BC WQG (mg/L)	
		Min	Mean	95th P	Max	Min	Max	Short-term	Long-term
WQ28	62	0.011	**0.086**	**0.24**	**0.28**	7.0	8.0	0.05	0.10
WQ27	74	0.002	**0.074**	**0.20**	**0.29**	7.1	8.1	0.05	0.10
WQ26	85	0.005	**0.066**	**0.19**	**0.24**	7.1	8.1	0.05	0.10
WQ7	123	<0.002	**0.055**	**0.17**	**0.33**	6.9	8.1	0.05	0.10
All stations	344	<0.002	**0.067**	**0.20**	**0.33**	6.9	8.1	0.05	0.10

Notes:
BC WQG = British Columbia water quality guidelines for aquatic life. Guideline is pH-dependent below pH of 6.5.
D-Al = Dissolved aluminum
95th P = 95th percentile statistic
Bold values exceed the long-term BC WQG; shaded values exceed the short-term BC WQG

Statistics for pH at the same stations are shown for context in Table 3-1 owing to the pH dependence of the BC WQG for D-Al for ambient pH values below 6.5. Recorded pH values remained above 6.5 at all stations on Davidson Creek within the monitoring record. On average, D-Al concentrations tend to be higher at stations located in the upper sections of the catchment (*e.g.*, WQ28 and WQ27) compared to those located in lower sections (WQ26 and WQ7).

The seasonal signature for D-Al concentrations at all stations resembles the annual hydrograph, with annual maxima and minima occurring during spring (or early summer) and winter low-flow periods, respectively (Figure 3-2; Appendix B). Such observations relate to the fact the "dissolved" Al inventory is predicted to be present as colloidal $Al(OH)_3$, and hence concentrations of filterable Al will be predicted to increase in response to increased flow and associated turbidity. Secondary concentration peaks occur during late summer through to early winter, attributed to fall precipitation events.

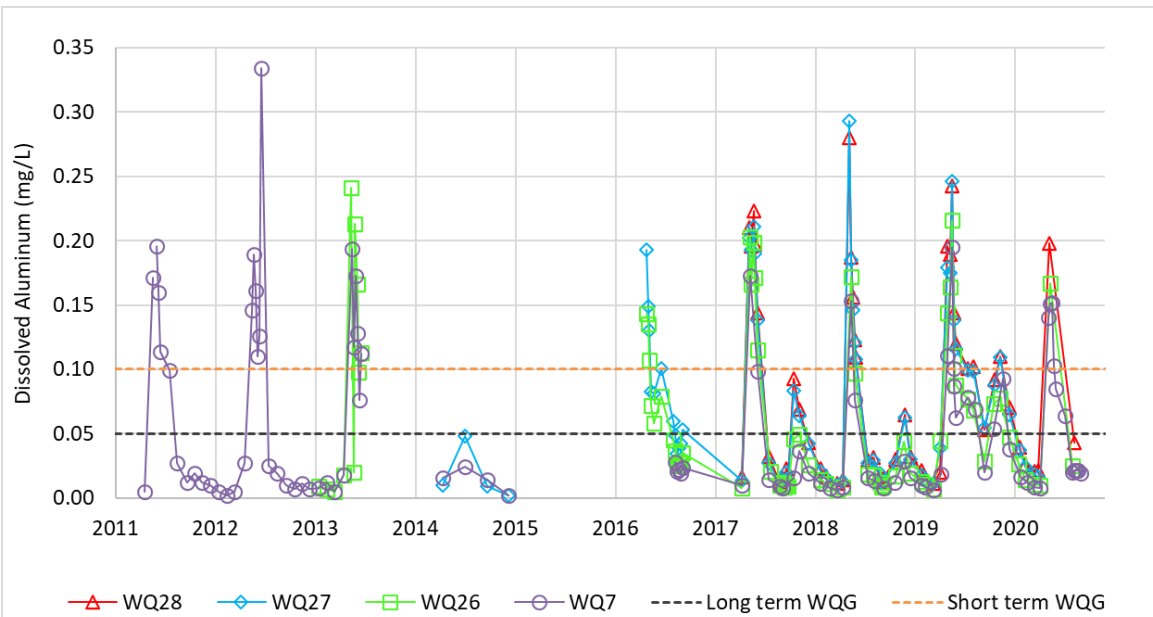

Figure 3-2: Davidson Creek dissolved aluminum concentrations at stations WQ28, WQ27, WQ26, and WQ7 from 2011 to 2020. British Columbia long-term and short-term water quality guidelines (WQG) for aquatic life shown as dashed black and orange lines, respectively.

3.4 Creek 661

A detailed description of site conditions in Creek 661 is provided in Lorax (2021) and briefly described below. Creek 661 is a third-order tributary that flows in a north-easterly direction toward Tatelkuz Lake. The creek discharges to Chedakuz Creek upstream of Tatelkuz Lake. Creek 661 is a third order stream with an approximate drainage area of 67 km^2. Aquatic life is identified as the primary water use for Creek 661. Other water uses

in the creek include wildlife and drinking water (in the case of occasional fishing, hunting, trapping, or gathering). Forestry has also occurred throughout the catchment.

Stream morphology and habitat in Creek 661 are reasonably similar to conditions in Davidson Creek with good quality fish habitat, including spawning gravels for rainbow trout and kokanee. However, baseline monitoring surveys recorded limited overwintering habitat (AMEC 2013a). Similar to Davidson Creek, the most abundant fish species present in the creek as recorded in baseline surveys were rainbow trout and kokanee. Periphyton and benthic invertebrate communities in Creek 661 are typical of the region and corresponding reference locations with similarities with Davidson Creek. Creek 661 sediments were dominated by large particle sizes composed mainly of gravel and sand with small percentage of silt and clay. Exceedances of applicable sediment guidelines are considered a natural occurrence and were observed for arsenic, cadmium, iron, manganese, mercury silver and zinc (AMEC 2013b).

Baseline surface water quality monitoring stations established in Creek 661 include WQ4 and WQ3 in the upper reaches, and WQ5 mid-reach. For the purpose of this analysis, it is assumed WQ4 will be engulfed by Project components, while WQ3 and WQ5 will represent the receiving environment. Similar to Davidson Creek, surface water quality in Creek 661 is characterized by circum-neutral to slightly alkaline pH, and soft water (ERM 2021). Concentrations of major ions and most trace elements are low, while concentrations of TSS, DOC and certain total metals increase in conjunction with spring freshet.

Dissolved aluminum concentrations are elevated in several months of the year. The mean D-Al concentrations for stations WQ3 and WQ5 in Creek 661 exceed the long-term BC WQG, and corresponding 95th percentiles for both stations exceed the short-term BC WQG (Table 2 2; Appendix B). The pH for both stations has remained above 6.5 over the monitoring period (Table 3-2).

Table 3-2:
Creek 661 - Descriptive statistics for dissolved aluminum concentration and pH for stations located downstream of the proposed Project footprint.

Station	Number of Samples	D-Al (mg/L)				pH (pH units)		D-Al BC WQG (mg/L)	
		Min	Mean	95th P	Max	Min	Max	Long-term	Short-term
WQ3	57	0.003	**0.055**	**0.15**	**0.20**	7.0	7.9	0.05	0.1
WQ5	57	0.019	**0.12**	**0.25**	**0.38**	6.8	7.8	0.05	0.1
All Creek 661	114	0.003	**0.088**	**0.22**	**0.38**	6.8	7.9	0.05	0.1

Notes:
BC WQG = British Columbia water quality guidelines for aquatic life. Guideline is pH-dependent below pH of 6.5.
D-Al = Dissolved aluminum
95th P = 95th percentile statistic
Bold values exceed the long-term BC WQG; shaded values exceed the short-term BC WQG

As observed for Davidson Creek stations, the seasonal signatures of D-Al at WQ3 and WQ5 closely mirror the annual hydrograph, with annual maxima and minima occurring during spring (or early summer) and winter low-flow periods, respectively (Figure 3-3; Appendix B). Dissolved Al concentrations routinely occur above the BC short-term guideline in May and June, and above the BC long-term guideline during the late summer/fall period at WQ5 and less frequently at WQ3.

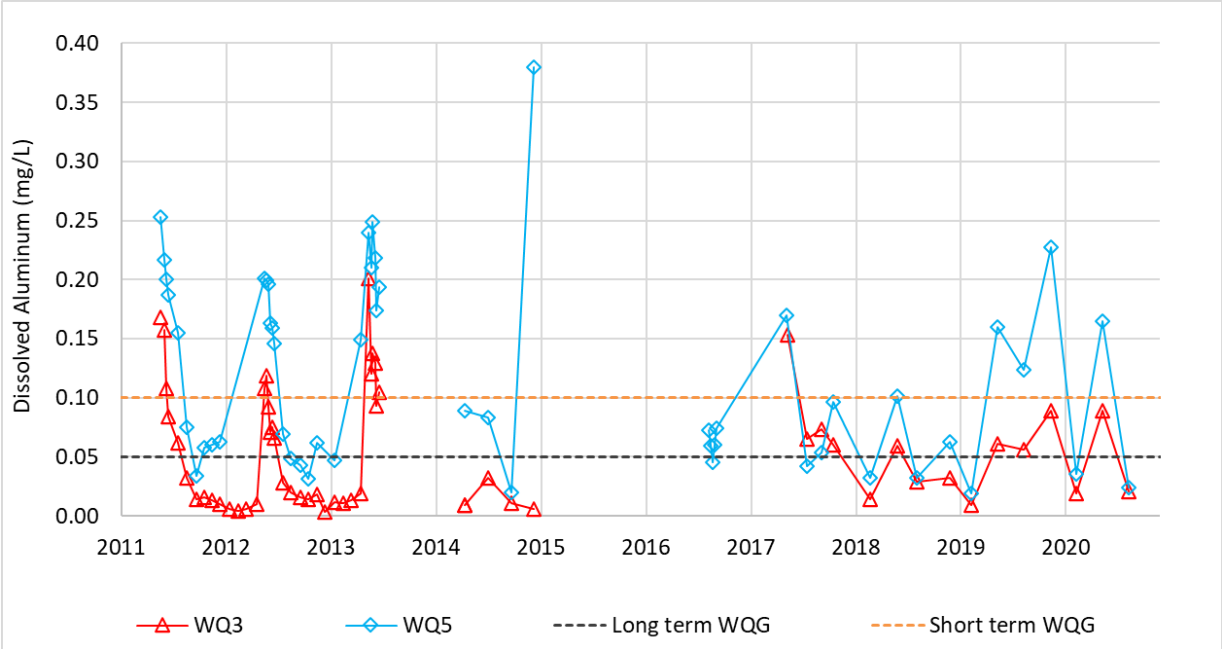

Figure 3-3: Creek 661 - Dissolved aluminum concentrations at stations WQ3 and WQ5 from 2011 to 2020. British Columbia long-term and short-term water quality guidelines (WQG) for aquatic life shown as dashed black and orange lines, respectively.

4. SBEB Development

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4. SBEB Development

A meeting with representatives of the BC ENV was held April 21, 2021 to discuss the documentation requirements for a D-Al SBEB applicable to the Project (Appendix C). The SBEB derivation checklists (namely Appendices A and B of BC ENV (2016)) completed by BW Gold Ltd. were sent to BC ENV in advance of submitting the SBEB development plan and submission of technical documents for review. From these interactions, BC ENV advised/confirmed to BW Gold Ltd. the following:

- The background concentration procedure is appropriate for the development of the D-Al SBEB in receiving aquatic environments;
- The best available technology section is not required to be included in the SBEB Development Report;
- Site characterization should be described to demonstrate how other factors could affect D-Al toxicity; and
- Effluent characterization is not critical since the SBEB derivation is based on the background concentration approach.

Based on the outcome of that meeting, updated SBEB derivation checklists were provided and approved by ENV. Subsequent communication between BW Gold Ltd. and ENV confirmed both the SBEB Development Plan and Submission Summary documents applicable to the SBEB derivation for the Project are to be submitted along with the joint application. A description of the background concentration approach and derivation of D-Al SBEBs for the Project is provided in the following sections.

4.1 Background Concentration Procedure

4.1.1 Approach

Dissolved Al concentrations at monitoring stations located in Davidson Creek and Creek 661 routinely show values above the BC WQGs for several months of the year. Therefore, the derivation of D-Al SBEBs for these systems is warranted. The most appropriate approach for the development of a D-Al SBEB for Davidson Creek and Creek 661 is the background concentration procedure. In this approach, the upper limits of background concentration are determined using the 95th percentile of existing data (BC ENV 2013a). The calculation may also account for seasonality in parameter concentration. Given the BC WQG for Al applies to the dissolved (rather than total) metal fraction, the SBEBs proposed in the present report for both Davidson Creek and Creek 661 are derived using baseline D-Al concentrations.

Appendix 3 of BC ENV (2013a) indicates that as long as there is no change from background concentrations (defined as the 95th percentile of appropriate data), it can be reasonably inferred that no harmful effects to receptors should take place. "No change" is defined as a difference of not greater than 20% going from upstream to downstream from a discharge or series of discharges (BC ENV 2013a). In the case of Davidson Creek and Creek 661, since the source of D-Al is from background rather than Project-related discharges, the derived SBEB is equal to the 95th percentile D-Al concentration plus 20%.

For the purposes of Davidson Creek and Creek 661, different D-Al SBEBs are proposed for different times of the year to account for seasonal concentration patterns and WQG exceedances reflected in the baseline dataset:

1. Spring and summer high flow season: April 1 to July 31.
2. Fall and early winter intermediate flow season: August 1 to December 31.

Outside of these dates (*i.e.*, January 1 to March 31), baseline concentrations fall below BC WQGs, and therefore no SBEB is proposed (*i.e.*, BC WQGs are assumed to apply).

4.1.1.1 Davidson Creek

The SBEB calculation approach described above would yield the following D-Al SBEBs for Davidson Creek:

1. 0.26 mg/L from April 1 to July 31,
2. 0.11 mg/L from August 1 to December 31.

These values were calculated using the combined baseline data for WQ28, WQ27, WQ26 and WQ7 for each of the defined seasonal periods. Given that the EA Certificate requires that WQGs or SBEBs are met in the Davidson Creek receiving environment (rather than at a compliance point), the datasets for all Davidson Creek stations were combined to derive applicable SBEBs. Corresponding station-specific calculations are shown in Table 4-1 for comparison purposes.

Table 4-1:
Davidson Creek - Dissolved aluminum (D-Al) 95th percentile concentrations plus 20%

Data period	Dissolved aluminum (mg/L)				
	D-Al SBEB*	WQ28	WQ27	WQ26	WQ7
April 1 – July 31	0.26	0.29	0.28	0.26	0.23
August 1 – December 31	0.11	0.12	0.11	0.086	0.068

*Values represent the proposed Science-Based Environmental Benchmarks (SBEB), calculated from combined WQ28, WQ27, WQ26 and WQ7 datasets.

In general, the proposed SBEB values for Davidson Creek reflect the upper limit of seasonal baseline D-Al concentrations for each of the stations (Figure 4-1). The values fall well below relevant drinking water criteria (*e.g.*, Maximum Allowable Concentration of 9.5 mg/L for drinking water sources). It is noted that select datapoints within the WQ28, WQ27 and WQ7 baseline datasets exceed the proposed SBEB during the spring/summer high flow season, reflecting natural variability.

4.1.1.2 Creek 661

The SBEB calculation approach described in Section 4.1.1 would yield the following proposed D-Al SBEBs for Creek 661:

1. 0.27 mg/L from April 1 to July 31,
2. 0.15 mg/L from August 1 to December 31.

The values were derived using the combined baseline monitoring data for WQ3 and WQ5 for each seasonal window. Both SBEBs fall below relevant drinking water criteria (*e.g.*, BC Maximum Allowable Concentration of 9.5 mg/L for drinking water sources). Corresponding station-specific calculations are shown in Table 4-2 for comparison. Three datapoints within the WQ5 baseline dataset exceed the proposed SBEB during the fall/early winter season, which reflect natural variability in D-Al concentrations (Figure 4-2)

Table 4-2:
Creek 661 - Dissolved aluminum (D-Al) 95th percentile concentrations plus 20%

	Dissolved aluminum (mg/L)		
Data period	**D-Al SBEB***	**WQ3**	**WQ5**
April 1 – July 31	0.27	0.20	0.30
August 1 – December 31	0.15	0.09	0.26

*Values represent the proposed Science-Based Environmental Benchmarks (SBEB), calculated from combined WQ3 and WQ5 datasets.

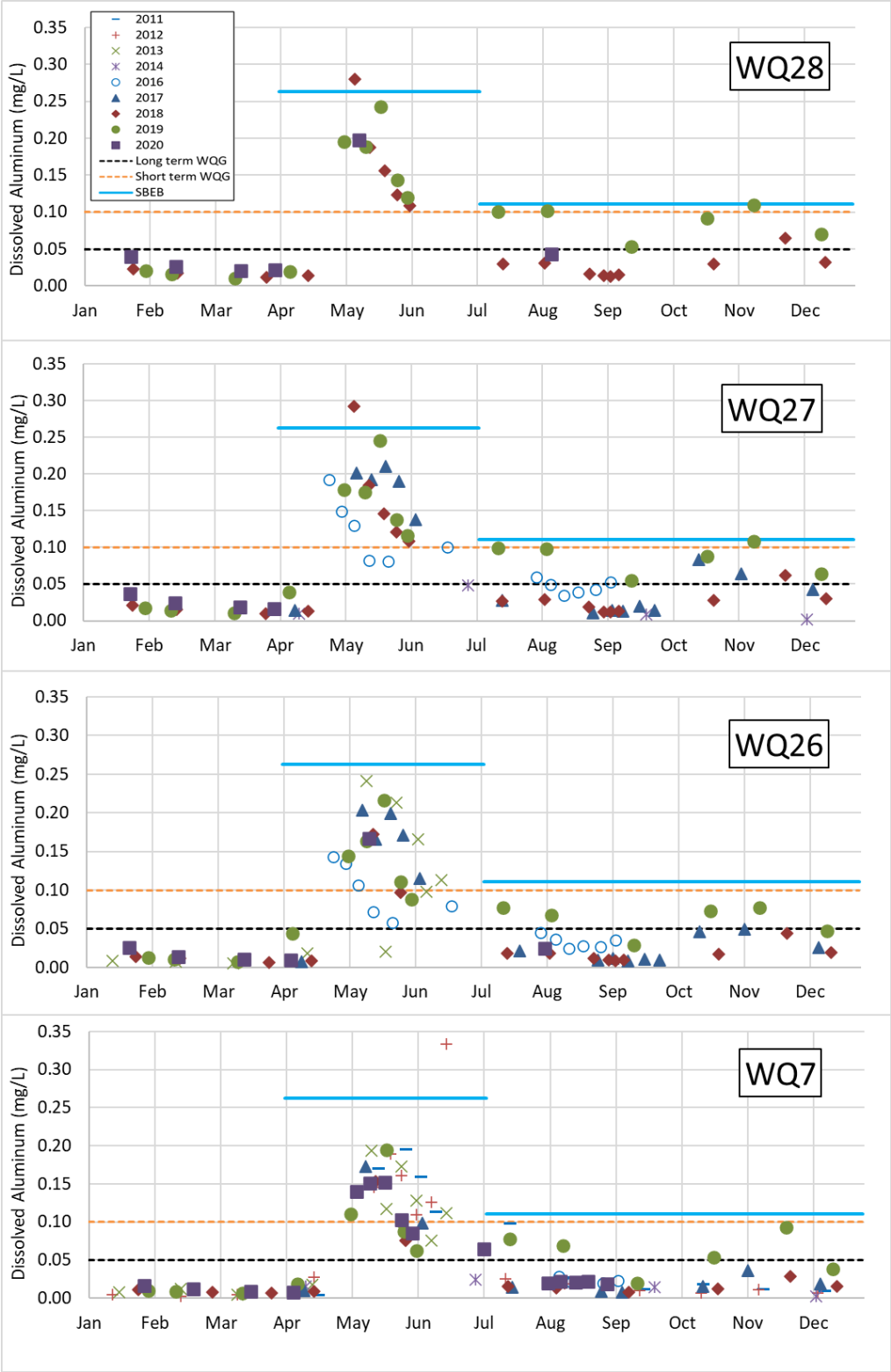

Figure 4-1: Davidson Creek - Monthly dissolved aluminum concentrations (stations WQ28, WQ27, WQ26 and WQ7) compared to British Columbia water quality guidelines for aquatic life (dashed lines) and proposed Science-Based Environmental Benchmark (solid blue line).

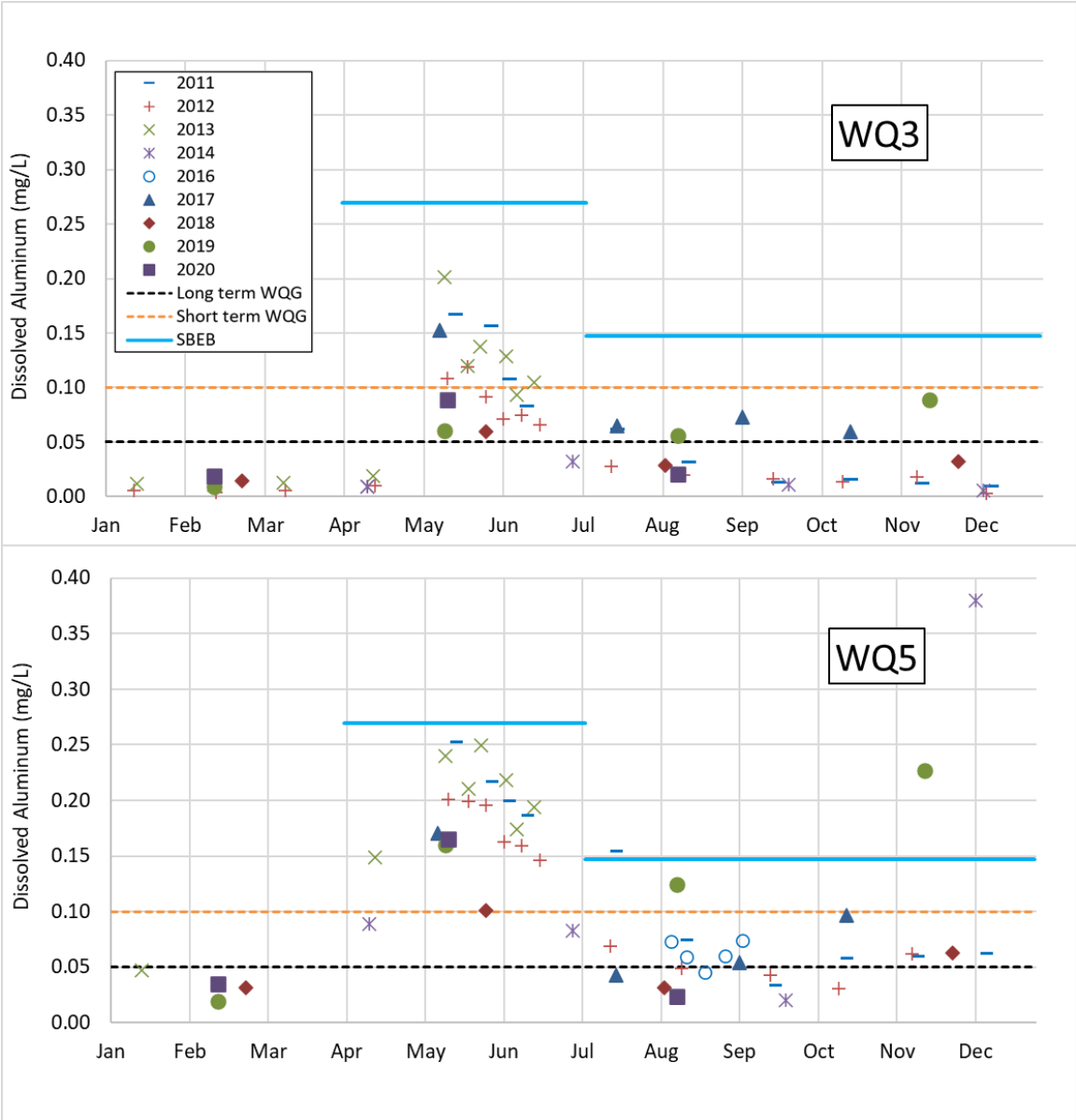

Figure 4-2: Creek 661 - Monthly dissolved aluminum concentrations (stations WQ3 and WQ5) compared to British Columbia water quality guidelines for aquatic life (dashed lines) and proposed Science-Based Environmental Benchmark (solid blue line).

4.2 Quality Assurance/Quality Control

Data used to calculate the D-Al SBEB were tabulated to facilitate visual examination of the results and identification of extreme or unusual results. Compiled water quality data were checked for unit conversions, formulae and transcription errors between created excel sheets and all original data files.

All surface water quality data collected as part of the baseline program (including for D-Al) were subjected to a field and data quality assurance/quality control (QA/QC) system. The field program included the collection of field blanks, travel blanks, and field duplicates, the results of which were evaluated using data quality objectives presented in the BC Field Sampling Manual (BC ENV 2013b).

Overall, field and travel blanks indicate that field sampling procedures were successful at avoiding sample contamination. Field duplicates did not indicate any systematic issues with sampling or analytical methods. Further details on the baseline surface water quality QA/QC program are presented in Appendix 2-H (2011 to 2020 Baseline Water Quality Report; ERM, 2021) of the Joint Application.

5. Summary of SBEB Applicability

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5. Summary of SBEB Applicability

Based on the results of the problem formulation described in Section 2, the operable pathway applicable to D-Al relates to surface water. As such, this section below discusses the applicability of the proposed SBEB values for Davidson Creek and Creek 661. In support of BW Gold Ltd.'s Joint Application for *Mines Act* and *Environmental Management Act* permits, a predictive water balance and water quality model was developed that included predictions for D-Al in the Project receiving environment. Predicted water quality predictions for D-Al are shown in Figure 5-1 and Figure 5-2 with raw data compiled in Appendix D

The water quality model incorporates a life of mine (LOM) water balance model (WBM), describing anticipated conditions at the Project over a 125-year period, developed by Knight Piesold (KP, 2020a). Coupled to this WBM and encoded within a GoldSim modelling framework, Lorax developed a site-wide water quality model (WQM) for the Project. Outputs from the WQM provide quantitative estimates of changes to water quality conditions resulting from proposed activities at the property.

Consistent with the LOM WBM (KP, 2020a), the assumed timing and duration of the Project phases in the site-wide WQM are as follows:

- Baseline (Year -17 to Year -3);
- Construction (Year -2 and -1);
- Operations (Year 1 to Year 23);
- Closure (Year 24 and extending until Project waters discharge naturally via the Closure Spillway of the TSF to Davidson Creek); and
- Post-Closure, which is the period extending from end of Closure, into perpetuity.

Water quality predictions were generated for several mine site and receiving environment modelling nodes within the Project area. Receiving environment node locations were selected to be consistent with baseline monitoring locations where possible, including WQ28, WQ27, WQ26, and WQ7 in Davidson Creek, WQ5 in Creek 661, and WQ8, WQ9, and WQ13 in Chedakuz Creek. Additional nodes were added to the base of Creek 661 ("WQCk661" node), and at two far-field locates in Chedakuz Creek ("ChedakuzMidway" and "ChedakuzOutlet") to ensure adequate spatial coverage of model predictions. Further detail on the WQM architecture and inputs is presented in Section 5.4 and Appendix 5-D of the Joint Application.

For Davidson Creek, predicted concentrations remain below the D-Al SBEB value for all stations through construction and operations. Predicted D-Al concentrations for Creek 661 routinely exceed SBEB values for both WQ5 and WQCk661 in March and December. These exceedances were also observed in baseline D-Al concentrations (*e.g.,* Figure 3-3), and thus reflect natural variability. Because the exceedances are driven by background sources, rather than mine-related effects, the potential for adverse effects to aquatic biota is negligible. Effects to drinking water and wildlife are not expected as the proposed SBEBs fall below relevant BC water quality guidelines (human and wildlife receptor guidelines of 9.5 mg D-Al/L and 5 T-Al mg/L, respectively).

Although adverse effects due to D-Al exposure in aquatic biota are not expected to occur, concentrations will be routinely monitored as part of the Aquatic Effects Monitoring Plan (AEMP), which will be submitted with the Joint Application. Monitoring results obtained through the AEMP will be used in an adaptive management approach that will routinely evaluate the appropriateness of the SBEB and prescribe updates to monitoring plans and inform mitigation efforts, as necessary.

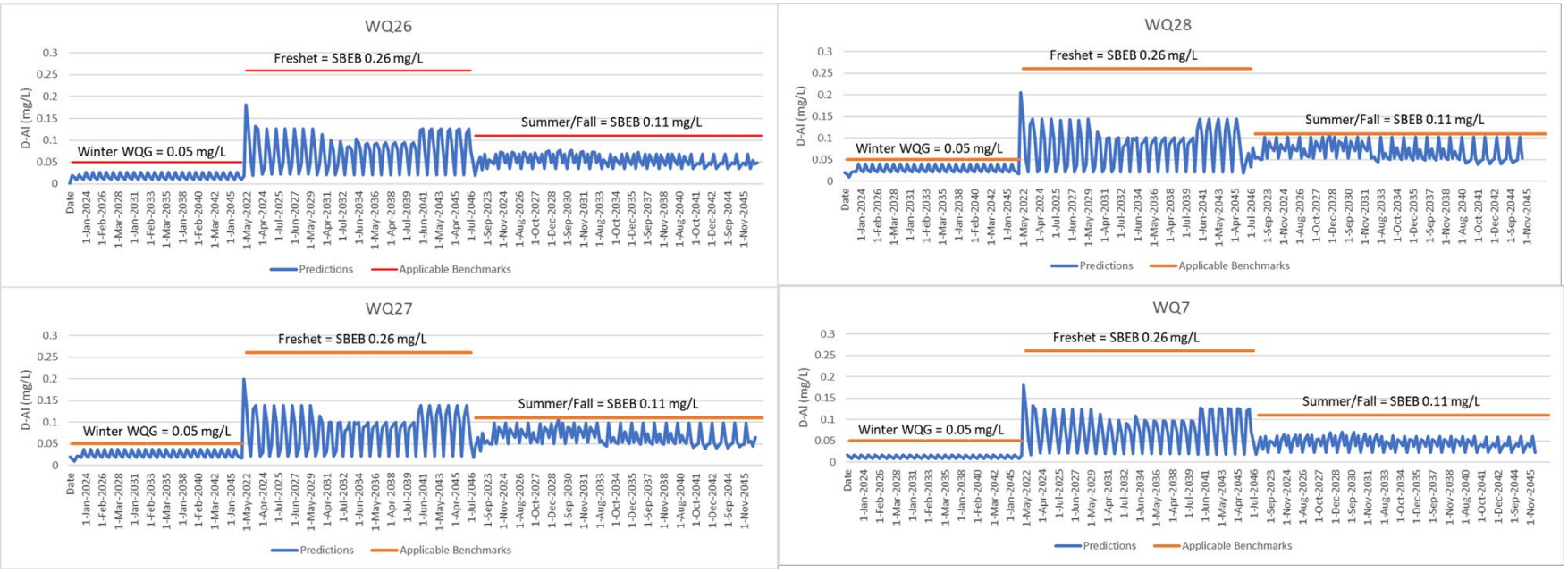

Figure 5-1: Water quality predictions for dissolved aluminum (D-Al) in Davidson Creek during construction and operations phases (temporal boundary 2022 to 2046) for the Blackwater Gold Project compared against proposed Science-Based Environmental Benchmark (SBEB; solid red line). Monthly predictions are grouped by flow periods for visualization purposes (*e.g.*, January to March 2022 to 2046, then April to July 2022 to 2046, followed by August to December 2022 to 2046).

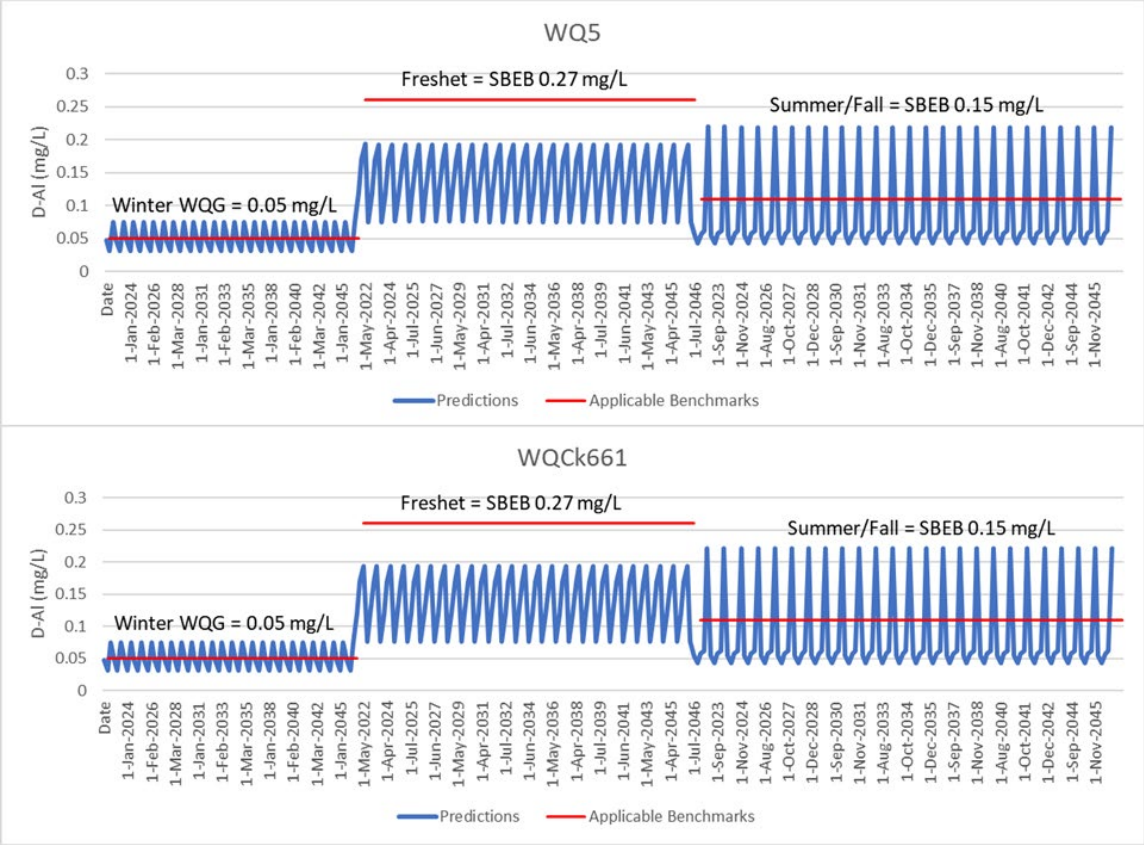

Figure 5-2: Water quality predictions for dissolved aluminum (D-Al) in Creek 661 during construction and operations phases (temporal boundary 2022 to 2046) for the Blackwater Gold Project compared against proposed Science-Based Environmental Benchmark (SBEB; solid red line) (solids red line). Monthly predictions are grouped by flow periods for visualization purposes (*e.g.*, January to March 2022 to 2046, then April to July 2022 to 2046, followed by August to December 2022 to 2046).

5.1 Uncertainty Considerations

Sources of uncertainty may include occasional sampling and measurement errors that occurred during the baseline program. However, the results of the QA/QC samples collected during the baseline monitoring program suggest the risk of this source of uncertainty is relatively low. Based on this, it is not expected that the described uncertainty sources will affect the reliability and protective nature of the proposed SBEB value.

The predictive WBM and WQM represent an additional uncertainty to the present assessment. Uncertainty associated with the models is mitigated to the degree possible through the incorporation of reasonable conservatism in all assumptions and estimates. It is further noted that, in the case of Al, the Project is expected to contribute a relatively low

level of Al loading to the receiving environment as reflected in the Project's geochemical source terms (described further in Section 5.4 and the WQM technical report in Appendix 5-D). The primary source of D-Al to Davidson Creek and Creek 661 is attributed to the management of background waters that contain naturally-elevated concentrations of D-Al within and around the mine footprint.

6. Monitoring and Adaptive Management

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6. Monitoring and Adaptive Management

During the Project Construction and Operation phases, Project activities are not expected to measurably increase D-Al concentrations in the receiving environment, such that mitigations to specifically address D-Al are required. However, occasional exceedances of the proposed SBEB are anticipated due to natural variability (*e.g.*, Figure 4-1 and Figure 4-2). There is also potential for exceedances of the BC WQG from January 1 to March 31 (during which no SBEB is proposed) in the event of a late-winter warming period or early spring freshet. As such, D-Al concentrations will be routinely monitored as part of the AEMP. Monitoring results obtained through the AEMP will be used in an adaptive management approach that will routinely evaluate the appropriateness of the SBEB and prescribe updates to monitoring plans and inform mitigation efforts, as necessary.

The adaptive management approach may include immediate confirmatory sampling if an exceedance of the D-Al WQG or SBEB occurs. The sample would be analyzed for, at a minimum, parameters that may inform the cause and potential risk associated with the exceedance (*e.g.,* at minimum, pH, TSS, turbidity, DOC, hardness, total Al, D-Al, and field pH). This event would further trigger an internal review of concurrent or related events, Project activities, and sources that may have contributed to the exceedance. The results of the review would be reported to regulators and stakeholders as prescribed in the EA certificate and effluent permit.

7. Closure

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7. Closure

We trust that the information provided herein is sufficient for your present needs. Should you require anything further, please contact the undersigned.

Yours sincerely,
Lorax Environmental Services

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Appendix A: Summary Report Checklist

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Appendix A - Checklist for Phase 2: SBEB Submission

This checklist identifies items to be included into the submission of a proposed SBEB.

Information Requirements	Information Provided				Location in Document (page number and section)	Comments
	Provided	Partially Provided	Not Provided	Not Applicable		
Qualified Professionals						
Qualified professional(s) has (have) developed and signed the SBEB submission.	X					
The qualified professionals are practicing in the area of their expertise.	X					
Document Requirements						
Executive summary is included.	X				Yes	
Raw data is included.	X				Yes, Appendices B and D	
Graphs showing seasonal trends for parameters of concern and/or used to determine toxicity have been included.	X				Section 3.3 and 3.4; Pages 3.3 to 3.7	Graphs showing seasonal trends for D-Al concentrations will be presented.
Field notes for sampling and any field work were submitted.				X		This information is not used to support the derivation of the D-AL SBEB.
Toxicity test laboratory reports and laboratory technician notes included.				X		This information is not used to support the derivation of the D-AL SBEB.
Toxicity test checklists are completed and included.				X		This information is not used to support the derivation of the D-AL SBEB.
Literature review data classifications are included.				X		This information is not used to support the derivation of the D-AL SBEB.
Aquatic effects monitoring plan (AEMP) is included.		X			Section 6; Page 6.1	The AEMP will be provided as part of the JA; relevant components of that plan will be summarized in the SBEB Submission document.
Adaptive management approaches are included.		X			Section 6; Page 6.1	
Applicable drinking water guidelines and other WQGs are listed.	X				Section 3.2; Page 6.2	
SBEB Development History						
Summary of site conditions, effluent quality projections, aquatic receptors, toxic factors unique to the site and parameters for SBEB.	X				Section 3; Pages 3.1 to 3.7	
Summary of problem formulation and conceptual site model.	X				Section 2; Pages 3.1 to 3.2	
Summary of the rationale for creating an SBEB vs. using WQGs.	X				Section 4; Pages 4.1 to 4.5	The Environmental Assessment Certificate for the project states that WQGs or SBEBs must be met in the receiving environment. Because D-Al naturally exceeds the WQG in the receiving environment, an SBEB is required. The aquatic effects assessment and proposed mine water management strategies in the JA will need to incorporate and evaluate potential Project effects using the proposed SBEB due to natural background exceedances.
Summary of any conditions or directions during ministry review of SBEB Development Plan	X				Section 4, Appendix C	A summary of conditions and directions received by the ministry on SBEB derivation and documentation will be presented.
Lines of Evidence/Scientific Approach						
Summary of peer-reviewed scientific literature and/or reference documents used to develop the approaches and lines of evidence including methods used.	X				Sections 3.1; Pages 3.1 to 3.3	
A table describing key details of toxicology studies that were classified and used in SBEB development.				X		This information is not used to support the derivation of the D-AL SBEB.

Appendix A - Checklist for Phase 2: SBEB Submission

This checklist identifies items to be included into the submission of a proposed SBEB.

Information Requirements	Information Provided				Location in Document (page number and section)	Comments
	Provided	Partially Provided	Not Provided	Not Applicable		
A detailed description of tests, models or sampling methods used for SBEB development, including documentation of any ministry-accepted changes to methods or protocols.	☐	☐	☐	☒		This information is not used to support the derivation of the D-AL SBEB.
A detailed explanation of the quality assurance and quality control procedures implemented.	☒	☐	☐	☐	Section 4.2; Page 4.6	A summary of QA/QC related to the D-Al dataset and data manipulation as the basis of the proposed SBEB will be presented.
Sampling details and analysis results of water, sediments and/or biota for toxicity tests applicable for SBEB development.	☐	☐	☐	☒		This information is not used to support the derivation of the D-AL SBEB. Toxicology studies and/or sample analysis are not required for the SBEB's derivation.
Description of data quality and how data were handled that did not meet data quality objectives.	☒	☐	☐	☐	Section 4.2; Page 4.6	Information requirement updated May 5, 2021. Notably, the rationale will be included for any baseline data omitted from the background calculation procedure (e.g., outliers).
Detailed summary of all statistical analyses, and statistical results.	☒	☐	☐	☐	Sections 3.3 (Page 3.4); 3.4 (Page 3.6); Appendix B	
Data tabulation with summary statistics (i.e., maximum, minimum, median, and mean with confidence intervals).	☒	☐	☐	☐	Sections 3.3 (Page 3.4); 3.4 (Page 3.6);	
Description of SBEB including discussion supporting the value or attribute proposed based on the lines of evidence.	☒	☐	☐	☐	Sections 4 (Pages 4.1 to 4.5) and 5 (Pages 5.1 to 5.4)	
Demonstration of how SBEB will meet WQGs in the downstream environment and will not conflict with area based management plan or policies and legislation.	☐	☐	☐	☒		Not applicable as SBEB will be based on existing conditions.
Discussion of uncertainties (including but not limited to test results, statistical analyses, water quality and species variabilities, and toxicological uncertainties) related to SBEB development and resulting effectiveness in protecting aquatic life.	☒	☐	☐	☐	Section 5.1; Pages 4.4 and 4.5	
Monitoring and Adaptive Management Approach to Mitigation or Future Monitoring						
Detailed monitoring plan proposal to evaluate SBEB achievement in the receiving environment and effectiveness in protecting aquatic life.	☐	☒	☐	☐	Sections 5 (Pages 5.1 to 5.4); 6 (Page 6.1)	The monitoring plan proposal will tie into the AEMP submitted under the JA. Components of the AEMP relevant to D-Al will be summarized in the SBEB Submission.
Monitoring protocols, sampling and analysis methods, statistical analyses methods, and QA/QC protocols.	☐	☒	☐	☐	Section 6; Page 6.1	The monitoring plan proposal will tie into the AEMP submitted under the JA. Components of the AEMP relevant to D-Al will be summarized in the SBEB Submission.
Detailed explanation of how the monitoring program will accomplish its objective (i.e., why certain times of year should be sampled, how the frequency evaluates the effectiveness, etc.).	☐	☒	☐	☐	Section 6; Page 6.1	The monitoring plan proposal will tie into the AEMP submitted under the Joint Application.
Description of an adaptive management approach under the permit.	☐	☒	☐	☐	Section 6; Page 6.1	The monitoring plan proposal will tie into the AEMP submitted under the JA. The AEMP will include an adaptive management approach. Components of the AEMP relevant to D-Al will be summarized in the SBEB Submission.
Detailed summary of contingency measures planned should SBEBs not be achieved or protective of aquatic life (e.g., treatment options, site management practices, further research to reduce uncertainties related to an SBEB).	☒	☐	☐	☐	Sections 5.1 (Pages 5.1 and 5.2) and 6 (Page 6.1)	A detailed description of contingency measures for the mine will be presented in the JA. A summary of contingency measures specific to D-Al will be presented in the SBEB Submission document.
Planned reporting of monitoring result, including data analyses, reporting frequency, report content and format.	☒	☐	☐	☐	Section 6; Page 6.1	The reporting of monitoring results is proposed to be tied into annual reporting requirements under the effluent permit.

JA: Joint Application for *Mines Act* and *Environmental Management Act* Permits

Appendix B: Baseline Water Quality Data

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ28	2017-04-11	7.9	46.4	2.57	<3.0	0.02
WQ28	2017-05-10	7.21	15.8	15.6	<3.0	0.21
WQ28	2017-05-17	7.25	15.1	14.3	110	0.20
WQ28	2017-05-24	7.01	12.1	15.6	4.5	0.22
WQ28	2017-05-24	7.04	12	15.7	3.1	0.23
WQ28	2017-05-30	7.15	10.4	12.6	<3.0	0.20
WQ28	2017-06-07	7.34	13.3	10.1	7.3	0.14
WQ28	2017-07-18	7.71	29.8	4.33	<3.0	0.03
WQ28	2017-07-18	7.7	30	4.27	<3.0	0.03
WQ28	2017-08-30	8	49.8	2.31	<3.0	0.01
WQ28	2017-09-08	8	47.5	3.01	16.8	0.02
WQ28	2017-09-13	7.94	43.4	3.07	<3.0	0.01
WQ28	2017-09-21	7.72	33.6	4.01	3.4	0.02
WQ28	2017-09-21	7.83	34.1	4.01	4	0.02
WQ28	2017-09-28	7.9	39.1	3.58	<3.0	0.02
WQ28	2017-09-28	7.9	39.9	3.54	<3.0	0.02
WQ28	2017-10-19	7.76	23.5	11.4	<3.0	0.09
WQ28	2017-11-08	7.59	22.6	6.44	<3.0	0.07
WQ28	2017-12-12	7.75	29.3	4.62	<3.0	0.04
WQ28	2018-01-24	7.87	38.9	3.1	<3.0	0.02
WQ28	2018-02-14	7.89	38	2.64	<3.0	0.02
WQ28	2018-03-28	7.78	39.7	2.41	3	0.01
WQ28	2018-04-17	7.97	42.4	2.64	<3.0	0.01
WQ28	2018-05-09	7.13	10	17.3	26.7	0.28
WQ28	2018-05-09	7.1	9.87	16.8	20.7	0.27
WQ28	2018-05-16	7.15	8.93	12.4	6.9	0.19
WQ28	2018-05-23	7.15	10.4	10.2	<3.0	0.16
WQ28	2018-05-29	7.43	13.4	8.65	<3.0	0.12
WQ28	2018-06-04	7.48	13.7	9.07	8.8	0.11
WQ28	2018-07-18	7.84	30.7	4.32	3.5	0.03
WQ28	2018-08-07	7.87	33.3	4.58	<3.0	0.03
WQ28	2018-08-28	7.97	43.3	2.57	<3.0	0.02
WQ28	2018-09-04	7.83	43.6	2.65	<3.0	0.01
WQ28	2018-09-04	7.87	43.2	2.66	<3.0	0.01
WQ28	2018-09-07	7.91	44.9	2.4	<3.0	0.01
WQ28	2018-09-11	7.99	39.6	2.83	<3.0	0.02
WQ28	2018-10-26	7.68	29.2	4.44	<3.0	0.03
WQ28	2018-11-29	7.54	23.1	6.25	<3.0	0.06
WQ28	2018-12-18	7.77	28.9	3.9	<3.0	0.03
WQ28	2019-01-30	7.8	34.7	2.79	<3.0	0.02
WQ28	2019-02-11	7.8	39.9	2.54	<3.0	0.02
WQ28	2019-03-13	7.85	44.9	1.77	<3.0	0.01
WQ28	2019-04-08	7.82	43.4	5.62	<3.0	0.02
WQ28	2019-05-04	7.38	17.3	12.4	6.4	0.20
WQ28	2019-05-14	7.21	13.2	13.2	<3.0	0.19
WQ28	2019-05-21	7.5	11.1	16.5	9.2	0.24
WQ28	2019-05-21	7.43	11.8	16.2	13.8	0.25
WQ28	2019-05-29	7.35	13.9	11	<3.0	0.14
WQ28	2019-05-29	7.23	14.3	10.9	<3.0	0.15

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ28	2019-06-03	7.46	16.1	9.26	<3.0	0.12
WQ28	2019-07-16	7.49	17.8	9.37	<3.0	0.10
WQ28	2019-08-08	7.55	19.3	8.98	<3.0	0.10
WQ28	2019-09-17	7.77	26.9	6.21	<3.0	0.05
WQ28	2019-10-23	7.6	19.2	7.18	<3.0	0.09
WQ28	2019-11-14	7.53	17.3	7.95	<3.0	0.11
WQ28	2019-12-16	7.32	23	5.63	<3.0	0.07
WQ28	2020-01-23	7.71	30.7	4.44	<3.0	0.04
WQ28	2020-02-13	7.61	32.3	3.22	<3.0	0.03
WQ28	2020-03-16	7.72	36.7	2.78	<3.0	0.02
WQ28	2020-04-01	7.66	41.5	2.58	<3.0	0.02
WQ28	2020-05-11	7.05	12.6	13.7	<3.0	0.20
WQ28	2020-08-10	7.75	25.4	6.13	<3.0	0.04
WQ27	2014-04-13	7.71	46.9	2.6	<2	0.01
WQ27	2014-07-02	7.37	26.2	5.8	<2	0.05
WQ27	2014-09-24	7.84	60	2.2	<2	0.01
WQ27	2014-12-09	7.78	51.6	1.9	<2	0.00
WQ27	2016-04-27	7.15	13.3	14.6	3.2	0.19
WQ27	2016-05-03	7.27	13.1	11.3	<3.0	0.15
WQ27	2016-05-09	7.45	14.9	8.92	<3.0	0.13
WQ27	2016-05-16	7.6	16.5	7.58	<3.0	0.08
WQ27	2016-05-25	7.65	19.4	6.56	<3.0	0.08
WQ27	2016-06-22	7.62	16.7	10	<3.0	0.10
WQ27	2016-06-22	7.63	17	9.68	<3.0	0.10
WQ27	2016-08-03	7.68	25	6.78	<3.0	0.06
WQ27	2016-08-10	7.72	27.6	6.74	<3.0	0.05
WQ27	2016-08-16	7.7	33	4.98	<3.0	0.03
WQ27	2016-08-23	7.62	29.4	5.67	<3.0	0.04
WQ27	2016-08-31	7.58	30.7	6.41	<3.0	0.04
WQ27	2016-09-07	7.55	26.3	7.33	<3.0	0.05
WQ27	2017-04-11	7.9	46.8	2.73	<3.0	0.01
WQ27	2017-05-10	7.22	16.1	15.4	3.5	0.20
WQ27	2017-05-17	7.29	14.4	14	<3.0	0.19
WQ27	2017-05-24	7.05	12.4	15.7	4.3	0.21
WQ27	2017-05-30	7.09	10.6	12.5	<3.0	0.19
WQ27	2017-06-07	7.3	13.7	10.6	4.1	0.14
WQ27	2017-07-18	7.71	30.6	4.1	<3.0	0.03
WQ27	2017-08-30	7.96	48.9	2.26	<3.0	0.01
WQ27	2017-09-08	7.96	47.4	2.87	<3.0	0.01
WQ27	2017-09-13	7.85	44.1	2.85	4.5	0.01
WQ27	2017-09-13	7.9	44.3	2.97	<3.0	0.01
WQ27	2017-09-21	7.82	36	3.78	<3.0	0.02
WQ27	2017-09-28	7.89	40.7	3.38	<3.0	0.01
WQ27	2017-10-19	7.67	24.8	10.7	<3.0	0.08
WQ27	2017-11-08	7.54	22.7	6.27	<3.0	0.06
WQ27	2017-12-12	7.76	30.1	4.51	<3.0	0.04
WQ27	2018-01-24	7.87	39	2.9	<3.0	0.02
WQ27	2018-02-14	7.89	37.4	2.88	<3.0	0.02
WQ27	2018-03-28	8.07	39.8	2.21	<3.0	0.01

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ27	2018-04-17	7.95	42.7	2.71	<3.0	0.01
WQ27	2018-05-09	7.18	10.5	17.9	19.5	0.29
WQ27	2018-05-16	7.18	9.2	12.9	10.5	0.19
WQ27	2018-05-23	7.34	10.6	10.3	4.3	0.15
WQ27	2018-05-23	7.33	10.3	10.5	3.3	0.14
WQ27	2018-05-29	7.44	14	8.66	<3.0	0.12
WQ27	2018-06-04	7.44	14.3	8.97	3.8	0.11
WQ27	2018-06-04	7.51	14.3	8.65	<3.0	0.11
WQ27	2018-07-18	7.84	30.4	4.27	<3.0	0.03
WQ27	2018-08-07	7.72	34	4.55	<3.0	0.03
WQ27	2018-08-28	7.91	42.1	2.58	<3.0	0.02
WQ27	2018-08-28	7.86	43.2	2.49	<3.0	0.02
WQ27	2018-09-04	7.83	43.1	2.65	<3.0	0.01
WQ27	2018-09-07	7.86	45.5	2.4	<3.0	0.01
WQ27	2018-09-11	7.99	42	2.78	<3.0	0.01
WQ27	2018-10-26	7.68	30.6	4.32	<3.0	0.03
WQ27	2018-11-29	7.54	24.7	6.23	3	0.06
WQ27	2018-11-29	7.55	23.9	6.31	<3.0	0.06
WQ27	2018-12-18	7.83	30.4	3.86	<3.0	0.03
WQ27	2019-01-30	7.78	35	2.77	<3.0	0.02
WQ27	2019-02-11	7.73	40.3	2.32	<3.0	0.01
WQ27	2019-03-13	7.83	43.8	1.8	<3.0	0.01
WQ27	2019-04-08	7.71	34.5	5.63	<3.0	0.04
WQ27	2019-05-04	7.31	17.5	12.4	6.4	0.18
WQ27	2019-05-14	7.2	13.4	13.8	<3.0	0.17
WQ27	2019-05-21	7.45	11.3	17.8	8.6	0.25
WQ27	2019-05-29	7.27	14.4	10.9	<3.0	0.14
WQ27	2019-06-03	7.37	16.6	9.09	<3.0	0.12
WQ27	2019-07-16	7.45	18.5	9.6	<3.0	0.10
WQ27	2019-08-08	7.55	20.6	9.05	<3.0	0.10
WQ27	2019-09-17	7.75	25.3	6.18	<3.0	0.05
WQ27	2019-10-23	7.61	19.1	7.13	<3.0	0.09
WQ27	2019-11-14	7.62	17.7	7.83	<3.0	0.11
WQ27	2019-12-16	7.31	23.7	5.35	<3.0	0.06
WQ27	2020-01-23	7.7	31.7	3.86	<3.0	0.04
WQ27	2020-02-13	7.7	35.4	3.09	<3.0	0.02
WQ27	2020-03-16	7.66	37.5	2.59	<3.0	0.02
WQ27	2020-04-01	7.67	43.5	2.44	<3.0	0.02
WQ26	2013-01-13	7.7	62.2	2.4	< 2	0.01
WQ26	2013-02-12	7.8	60.9	2.2	< 2	0.01
WQ26	2013-03-11	7.88	64.7	2	< 2	0.01
WQ26	2013-04-15	7.74	46	4.9	< 2	0.02
WQ26	2013-05-13	7.53	14.3	12.8	7	0.24
WQ26	2013-05-22	7.24	17	5	< 2	0.02
WQ26	2013-05-27	7.29	18.5	11.5	6	0.21
WQ26	2013-06-06	7.29	17.1	11	6	0.17
WQ26	2013-06-10	7.4	20.4	7.9	2	0.10
WQ26	2013-06-17	7.33	19.1	9.1	5	0.11
WQ26	2016-04-27	7.28	17.4	7.69	4.6	0.14

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ26	2016-04-27	7.22	18	14	5.6	0.17
WQ26	2016-05-03	7.46	17.4	11.4	3.4	0.14
WQ26	2016-05-03	7.4	14.3	11.5	<3.0	0.16
WQ26	2016-05-09	7.56	19.2	8.69	<3.0	0.11
WQ26	2016-05-16	7.67	21.4	7.32	<3.0	0.07
WQ26	2016-05-25	7.77	24.7	6.5	<3.0	0.06
WQ26	2016-06-22	7.6	20.9	9.72	<3.0	0.08
WQ26	2016-08-03	7.66	32.3	6.42	<3.0	0.05
WQ26	2016-08-03	7.7	31.1	6.72	<3.0	0.04
WQ26	2016-08-10	7.83	34.5	6.53	<3.0	0.04
WQ26	2016-08-16	7.83	39.8	5.1	<3.0	0.02
WQ26	2016-08-23	7.75	36.7	5.2	<3.0	0.03
WQ26	2016-08-23	7.72	36.6	5.12	<3.0	0.03
WQ26	2016-08-31	7.72	38.5	5.83	<3.0	0.03
WQ26	2016-09-07	7.67	34.3	7.07	<3.0	0.03
WQ26	2017-04-12	7.96	56.4	3.32	<3.0	0.01
WQ26	2017-05-11	7.32	20.3	15	3.2	0.20
WQ26	2017-05-17	7.43	18.4	13.5	<3.0	0.17
WQ26	2017-05-17	7.4	18.2	14	3.8	0.17
WQ26	2017-05-24	7.18	14.7	15.3	8.7	0.20
WQ26	2017-05-30	7.26	12.8	12.2	4.4	0.17
WQ26	2017-05-30	7.25	12.8	12.1	3.2	0.17
WQ26	2017-06-07	7.44	17.6	9.94	3.5	0.12
WQ26	2017-06-07	7.42	17.5	10.1	4.7	0.12
WQ26	2017-07-24	7.85	40.9	4.16	<3.0	0.02
WQ26	2017-08-30	8.03	53.6	2.39	<3.0	0.01
WQ26	2017-09-06	7.97	53.9	3.12	<3.0	0.01
WQ26	2017-09-13	7.99	51.1	2.6	4.5	0.01
WQ26	2017-09-21	7.89	47.7	2.94	<3.0	0.01
WQ26	2017-09-28	7.99	47.5	3.02	<3.0	0.01
WQ26	2017-10-17	7.95	28.7	6.83	10.3	0.05
WQ26	2017-11-07	7.75	31.9	6.4	<3.0	0.05
WQ26	2017-12-12	7.87	39.5	4.7	<3.0	0.03
WQ26	2018-01-24	8.07	47.3	2.76	<3.0	0.01
WQ26	2018-02-14	7.94	47.9	2.83	<3.0	0.01
WQ26	2018-03-28	8.12	46.7	2.21	<3.0	0.01
WQ26	2018-04-17	8.03	53.5	2.38	<3.0	0.01
WQ26	2018-05-16	7.31	11.5	12.8	18.5	0.17
WQ26	2018-05-29	7.57	18.6	8.83	5	0.10
WQ26	2018-07-18	7.93	37.4	4.25	<3.0	0.02
WQ26	2018-08-07	7.94	40.6	4.35	<3.0	0.02
WQ26	2018-08-07	7.94	40.3	4.29	<3.0	0.02
WQ26	2018-08-28	8	49.7	2.42	<3.0	0.01
WQ26	2018-09-04	8.03	50.1	2.93	<3.0	0.01
WQ26	2018-09-07	7.97	51.3	2.42	<3.0	0.01
WQ26	2018-09-07	8.01	52.4	2.35	<3.0	0.01
WQ26	2018-09-11	8.04	50.9	2.59	<3.0	0.01
WQ26	2018-10-26	7.78	38.3	4.25	<3.0	0.02
WQ26	2018-11-27	7.69	29.6	4.82	<3.0	0.04

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ26	2018-12-18	7.92	38.2	3.65	<3.0	0.02
WQ26	2019-01-30	7.88	42.5	2.7	<3.0	0.01
WQ26	2019-02-11	7.84	48	2.7	<3.0	0.01
WQ26	2019-03-13	7.88	50.9	1.99	<3.0	0.01
WQ26	2019-03-13	7.89	52.1	1.79	<3.0	0.01
WQ26	2019-04-08	7.7	32.6	5.82	<3.0	0.04
WQ26	2019-05-04	7.44	21.4	11.5	10.2	0.14
WQ26	2019-05-13	7.28	16.9	13.6	8.4	0.16
WQ26	2019-05-21	7.09	15.2	18.3	20	0.22
WQ26	2019-05-29	7.49	19.9	11.3	5.3	0.11
WQ26	2019-06-03	7.58	22.4	9.15	3.5	0.09
WQ26	2019-07-16	7.71	24.1	9.5	<3.0	0.08
WQ26	2019-08-08	7.69	27.2	8.98	<3.0	0.07
WQ26	2019-09-16	7.79	34.7	5.22	<3.0	0.03
WQ26	2019-09-16	7.79	34.7	5.06	3.1	0.03
WQ26	2019-10-22	7.62	26.7	7.66	<3.0	0.07
WQ26	2019-10-22	7.62	26.3	8.15	<3.0	0.07
WQ26	2019-11-14	7.75	23.2	7.67	<3.0	0.08
WQ26	2019-12-16	7.4	29.4	5.33	<3.0	0.05
WQ26	2020-01-21	7.75	40	4.73	<3.0	0.03
WQ26	2020-02-13	7.7	41.9	3.34	<3.0	0.01
WQ26	2020-03-16	7.75	45.4	2.85	<3.0	0.01
WQ26	2020-04-07	7.75	52.8	2.23	<3.0	0.01
WQ26	2020-05-14	7.13	15.4	12.9	4.2	0.17
WQ26	2020-08-05	7.71	37.9	4.32	<3.0	0.02
WQ7	2011-04-19	8.14	57.4	2.2	< 2	0.01
WQ7	2011-05-17	7.4	20	20.1	11	0.17
WQ7	2011-05-24	7.25	18.1	22.7	38	
WQ7	2011-05-30	7.17	16.9	15	37	0.20
WQ7	2011-06-06	7.19	14.1	11	41	0.16
WQ7	2011-06-13	7.27	16.1	9.2	9	0.11
WQ7	2011-07-18	7.41	25.2	10.9	9	0.10
WQ7	2011-08-15	7.66	34.1	5.8	6	0.03
WQ7	2011-09-19	7.66	47.8	3.6	< 2	0.01
WQ7	2011-09-19	7.58		3.7	< 2	0.01
WQ7	2011-10-17	7.55	40	5.2	< 2	0.02
WQ7	2011-10-17	7.58		4.8	< 2	0.02
WQ7	2011-11-14	7.51	43.1	4	2	0.01
WQ7	2011-12-13	7.4	50.6	3.4	11	0.01
WQ7	2011-12-13	7.52		3.6	8	0.01
WQ7	2012-01-12	7.58	51.7	3.7	< 2	0.01
WQ7	2012-02-13	7.86	56	2.4	2	< 0.002
WQ7	2012-02-13	7.88		2.2	< 2	< 0.002
WQ7	2012-03-12	7.95	53	2.1	< 2	0.01
WQ7	2012-04-17	7.89	52.2	12.9	< 2	0.03
WQ7	2012-04-17	7.83		13	< 2	0.03
WQ7	2012-05-15	7.43	18.6	13.5	73	0.15
WQ7	2012-05-23	7.4	19.7	12.6	26	0.19
WQ7	2012-05-28	7.45	16.6	11.8	37	0.16

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ7	2012-05-28	7.39		11.9	40	0.14
WQ7	2012-06-04	7.44	17.4	9.9	21	0.11
WQ7	2012-06-11	7.11	16.6	8.9	12	0.13
WQ7	2012-06-18	7.54	78.8	8.2	7	0.33
WQ7	2012-07-16	7.74	31.8	5.3	3	0.03
WQ7	2012-07-16	7.65		5.6	4	0.02
WQ7	2012-08-13	7.82	39.8	5.4	< 2	0.02
WQ7	2012-08-13	7.86		5.5	2	0.02
WQ7	2012-09-17	7.83	50.8	11.9	< 2	0.01
WQ7	2012-10-16	7.86	54.3	9.2	< 2	0.01
WQ7	2012-11-12	7.87	50.8	3.7	< 2	0.01
WQ7	2012-11-12	7.77		3.8	< 2	0.01
WQ7	2012-12-10	7.82	59.5	2.8	< 2	0.01
WQ7	2013-01-15	7.66	63	2.9	5	0.01
WQ7	2013-01-15	7.64		3	2	0.01
WQ7	2013-02-13	7.78	59.1	3.1	3	0.01
WQ7	2013-02-13	7.77		3.4	< 2	0.01
WQ7	2013-03-12	7.8	66.6	2.2	3	0.01
WQ7	2013-04-16	7.79	51.9	7.1	< 2	0.02
WQ7	2013-04-16	7.74		7.2	< 2	0.02
WQ7	2013-05-14	7.16	16.5	11.8	< 2	0.19
WQ7	2013-05-21	7.28	18.1	9.4	7	0.12
WQ7	2013-05-28	7.4	21.2	10.3	15	0.17
WQ7	2013-06-04	7.35	20.9	10.4	14	0.13
WQ7	2013-06-04	7.37		10.5	15	0.13
WQ7	2013-06-11	7.46	24.2	8	6	0.08
WQ7	2013-06-18	7.46	24.6	10.7	10	0.11
WQ7	2013-06-18	7.48		10.7	12	0.11
WQ7	2014-04-13	7.63	50.4	6.7	28	0.02
WQ7	2014-07-02	7.51	37.4	6.3	6	0.02
WQ7	2014-09-24	7.85	64.2	2.7	<2	0.01
WQ7	2014-12-09	7.58	6.21	1.8	<2	<0.002
WQ7	2016-08-10	7.8	35.3	6.58	<3.0	0.03
WQ7	2016-08-16	7.61	40.4	5.37	<3.0	0.02
WQ7	2016-08-23	7.77	40.3	5.3	<3.0	0.02
WQ7	2016-08-31	7.7	41.5	5.65	<3.0	0.02
WQ7	2016-09-07	7.71	37.3	7.06	<3.0	0.02
WQ7	2017-04-12	7.89	55	<0.50	<3.0	0.01
WQ7	2017-05-11	7.4	22.7	14.8	12.4	0.17
WQ7	2017-05-11	7.38	22.2	14.9	11.6	0.16
WQ7	2017-06-07	7.49	19.6	9.93	<3.0	0.10
WQ7	2017-07-19	7.9	38.4	4.33	<3.0	0.01
WQ7	2017-08-30	7.97	51.8	3.25	<3.0	0.01
WQ7	2017-09-09	7.97	53.6	3.58	3.2	0.01
WQ7	2017-10-17	8	37.6	4.66	12.6	0.02
WQ7	2017-11-07	7.64	33	6.72	<3.0	0.04
WQ7	2017-11-07	7.73	33.1	6.7	3.7	0.04
WQ7	2017-12-11	7.61	37.2	4.62	<3.0	0.02
WQ7	2018-01-24	7.89	47.2	2.8	<3.0	0.01

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ7	2018-02-28	7.89	52.2	2.38	<3.0	0.01
WQ7	2018-03-28	7.93	46.6	2.46	4.6	0.01
WQ7	2018-04-17	7.91	55.4	3.22	<3.0	0.01
WQ7	2018-05-16	7.33	12.5	12.3	46.6	0.15
WQ7	2018-05-16	7.35	12.8	13.8	59.3	0.16
WQ7	2018-05-30	7.58	20.9	8.61	5.5	0.08
WQ7	2018-07-17	7.89	38.5	4.73	<3.0	0.02
WQ7	2018-07-17	7.83	39.3	4.83	<3.0	0.02
WQ7	2018-08-09	7.96	43.7	4.32	<3.0	0.01
WQ7	2018-09-12	8.05	51.1	2.98	<3.0	0.01
WQ7	2018-09-12	8.06	52.4	2.9	3.8	0.01
WQ7	2018-10-24	7.9	40	4.39	<3.0	0.01
WQ7	2018-10-24	7.9	41.5	4.45	<3.0	0.01
WQ7	2018-11-27	7.74	32.2	5.41	<3.0	0.03
WQ7	2018-12-19	7.82	39.7	3.59	<3.0	0.02
WQ7	2019-01-29	7.89	47.6	2.91	<3.0	0.01
WQ7	2019-01-29	7.97	47.3	2.84	<3.0	0.01
WQ7	2019-02-11	7.76	48.5	2.43	<3.0	0.01
WQ7	2019-03-14	7.95	55.9	1.95	<3.0	0.01
WQ7	2019-04-09	7.83	47	7.96	4.1	0.02
WQ7	2019-05-04	7.47	24.6	11.1	17.2	0.11
WQ7	2019-05-04	7.58	24.5	11.3	19	0.11
WQ7	2019-05-21	7.49	15.8	17	76	0.20
WQ7	2019-05-28	7.49	23.4	13	13.4	0.10
WQ7	2019-05-29	7.57	23.9	12.2	12.3	0.09
WQ7	2019-06-04	7.77	25.1	9.37	6.4	0.06
WQ7	2019-06-04	7.82	25	9.55	8.4	0.06
WQ7	2019-07-18	7.51	24.8	9.63	6	0.08
WQ7	2019-08-12	7.63	27.8	9.34	5.2	0.07
WQ7	2019-09-16	7.86	39.4	5.04	<3.0	0.02
WQ7	2019-10-22	7.69	31	8.1	<3.0	0.05
WQ7	2019-11-25	7.55	26.2	9.31	<3.0	0.09
WQ7	2019-12-17	7.56	33.5	4.95	<3.0	0.04
WQ7	2020-01-27	7.83	44.4	3.84	<3.0	0.02
WQ7	2020-02-19	7.86	44.6	3.36	<3.0	0.01
WQ7	2020-03-18	7.98	50.6	2.91	<3.0	0.01
WQ7	2020-04-07	7.72	58.7	2.48	<3.0	0.01
WQ7	2020-05-07	7.29	21.4	12.2	4.2	0.14
WQ7	2020-05-13	7.35	18	12.1	11.7	0.15
WQ7	2020-05-20	7.17	16	12.4	11.8	0.15
WQ7	2020-05-28	7.15	16.6	9.76	23.2	0.10
WQ7	2020-06-02	6.91	18.1	8.48	5.8	0.09
WQ7	2020-07-06	7.53	27.1	9.3	4.2	0.06
WQ7	2020-07-06	7.51	27.5	9.41	4.3	0.07
WQ7	2020-08-05	7.75	42.4	4.72	<3.0	0.02
WQ7	2020-08-11	7.85	39.1	5.32	<3.0	0.02
WQ7	2020-08-11	7.82	39.4	5.18	9.1	0.02
WQ7	2020-08-18	7.75	40.5	5.6	7.1	0.02
WQ7	2020-08-24	7.72	41	5.5	<3.0	0.02

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ7	2020-09-02	7.88	42.4	5.25	<3.0	0.02
WQ3	2011-05-17	7.37	23.1	17.1	19	0.17
WQ3	2011-05-25	7.26	15	19.2	< 2	
WQ3	2011-05-31	6.98	13.6	13.5	2	0.16
WQ3	2011-06-07	7.25	16.9	10.9	3	0.11
WQ3	2011-06-14	7.34	20.4	8.8	3	0.08
WQ3	2011-07-19	7.34	25.5	7.3	< 2	0.06
WQ3	2011-08-16	7.64	32.5	5.6	3	0.03
WQ3	2011-09-20	7.57	40.5	2.5	4	0.01
WQ3	2011-10-18	7.5	39.3	2.8	< 2	0.02
WQ3	2011-11-15	7.5	39.4	2.5	2	0.01
WQ3	2011-12-12	7.51	44.3	2.3	< 2	0.01
WQ3	2012-01-12	7.46	44.2	1.9	< 2	0.01
WQ3	2012-02-13	7.83	43.8	1.5	4	0.00
WQ3	2012-03-12	7.87	42.7	1.4	< 2	0.01
WQ3	2012-04-16	7.88	46.8	2.5	2	0.01
WQ3	2012-05-14	7.76	23.3	10.5	13	0.11
WQ3	2012-05-22	7.43	19.7	10.9	10	0.12
WQ3	2012-05-29	7.65	19.8	10.4	3	0.09
WQ3	2012-06-05	7.55	20.9	9.1	3	0.07
WQ3	2012-06-12	7.27	22.8	7.7	3	0.07
WQ3	2012-06-19	7.64	26.6	7	2	0.07
WQ3	2012-07-17	7.79	34.3	3.6	< 2	0.03
WQ3	2012-08-14	7.85	40.9	3.6	< 2	0.02
WQ3	2012-09-18	7.78	44	10.4	< 2	0.02
WQ3	2012-10-15	7.87	43.2	11.3	< 2	0.01
WQ3	2012-11-13	7.81	42.7	2.6	< 2	0.02
WQ3	2012-12-10	7.86	76.9	6.5	< 2	0.003
WQ3	2013-01-13	7.68	47.2	1.7	< 2	0.01
WQ3	2013-02-12	7.8	46.5	1.7	< 2	0.01
WQ3	2013-03-11	7.79	49.1	1.4	2	0.01
WQ3	2013-04-15	7.7	41.2	2.4	< 2	0.02
WQ3	2013-05-13	7.33	20.4	11.9	4	0.20
WQ3	2013-05-22	7.37	21.5	10.1	7	0.12
WQ3	2013-05-27	7.48	24.9	11.4	3	0.14
WQ3	2013-06-06	7.33	21.6	11.1	4	0.13
WQ3	2013-06-10	7.42	26.3	7.6	2	0.09
WQ3	2013-06-17	7.36	23.8	9.1	3	0.11
WQ3	2014-04-13	7.7	45.1	0.9	<2	0.01
WQ3	2014-04-13	7.73	45.4	2.7	4	0.01
WQ3	2014-07-02	7.55	38.2	3.9	2	0.03
WQ3	2014-09-24	7.81	50.7	2.2	3	0.01
WQ3	2014-12-09	7.7	48.6	1.3	<2	0.01
WQ3	2017-05-11	7.33	27.1	13	10.8	0.15
WQ3	2017-07-19	7.48	25.1	7.66	<3.0	0.06
WQ3	2017-09-06	7.75	40.6	11.3	<3.0	0.07
WQ3	2017-10-18	7.65	34.1	10.4	8.1	0.06
WQ3	2018-02-23	7.9	44.3	2.35	<3.0	0.01
WQ3	2018-05-29	7.63	24.3	9.77	<3.0	0.06

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ3	2018-08-07	7.88	40.7	6.56	<3.0	0.03
WQ3	2018-11-29	7.69	34.2	5.19	<3.0	0.03
WQ3	2019-02-12	7.76	41.6	2.77	5.4	0.01
WQ3	2019-05-13	7.53	24.9	9.06	6.8	0.06
WQ3	2019-08-12	7.62	28.6	9.02	3.6	0.06
WQ3	2019-11-18	7.57	24.2	8.96	<3.0	0.09
WQ3	2020-02-12	7.81	36.2	2.46	3.8	0.02
WQ3	2020-05-14	7.18	18.6	11	3.8	0.09
WQ3	2020-08-12	7.85	39.9	3.78	<3.0	0.02
WQ5	2011-05-17	7.07	17	22.1	7	0.25
WQ5	2011-05-17	7.03		21.7	11	0.31
WQ5	2011-05-25	6.91	9.9	16.5	5	
WQ5	2011-05-31	6.78	8.7	12.7	2	0.22
WQ5	2011-06-07	6.9	8.8	11.6	4	0.20
WQ5	2011-06-14	6.95	9.4	10.8	< 2	0.19
WQ5	2011-07-19	7.08	13.7	11.3	< 2	0.16
WQ5	2011-08-16	7.36	16.8	7.4	< 2	0.07
WQ5	2011-09-20	7.45	28.6	5.2	< 2	0.03
WQ5	2011-10-18	7.23	22.7	7.3	< 2	0.06
WQ5	2011-11-15	7.15	23.5	7.9	2	0.06
WQ5	2011-12-12	7.38	31.4	8	7	0.06
WQ5	2012-05-14	7.23	11.4	13.3	23	0.20
WQ5	2012-05-22	7.04	10.1	12.5	9	0.20
WQ5	2012-05-29	7.14	9.4	11.9	3	0.20
WQ5	2012-06-05	7.07	10.3	11.6	< 2	0.16
WQ5	2012-06-12	6.96	11.2	10.7	< 2	0.16
WQ5	2012-06-19	7.27	12	10.5	< 2	0.15
WQ5	2012-07-17	7.46	17.6	7.4	< 2	0.07
WQ5	2012-08-14	7.56	21	6.9	< 2	0.05
WQ5	2012-09-18	7.56	26.2	12	< 2	0.04
WQ5	2012-10-15	7.02	31.9	8.1	< 2	0.03
WQ5	2012-11-13	7.56	27.3	8.7	< 2	0.06
WQ5	2013-01-13	7.38	43.3	6.9	4	0.05
WQ5	2013-04-15	7.15	23.1	11	< 2	0.15
WQ5	2013-05-13	6.75	9.8	13.4	5	0.24
WQ5	2013-05-22	6.95	10.4	12.8	2	0.21
WQ5	2013-05-27	7.08	13.2	14	< 2	0.25
WQ5	2013-06-06	6.99	12	13.4	< 2	0.22
WQ5	2013-06-10	7.03	13	11.1	< 2	0.17
WQ5	2013-06-17	7.02	12.3	12.3	2	0.19
WQ5	2014-04-13	7.09	28.6	9.6	<2	0.09
WQ5	2014-07-02	7.16	18.7	8.4	<2	0.08
WQ5	2014-09-24	7.66	51.2	5	<2	0.02
WQ5	2014-12-08	7.23	37.1	5.3	<2	0.38
WQ5	2016-08-10	7.54	18.6	8.87	<3.0	0.07
WQ5	2016-08-16	7.51	21.9	7.43	<3.0	0.06
WQ5	2016-08-16	7.24	21.6	7.49	<3.0	0.06
WQ5	2016-08-23	7.44	23	6.57	<3.0	0.05
WQ5	2016-08-31	7.36	19.2	8.06	<3.0	0.06
WQ5	2016-08-31	7.37	19.3	8.11	<3.0	0.06

Site	Date	pH	Hardness mg/L $CaCO_3$	Dissolved Organic Carbon mg/L	Total Suspended Solids mg/L	Dissolved Aluminum mg/L
WQ5	2016-09-07	7.27	16.8	11.4	<3.0	0.07
WQ5	2017-05-10	7.3	17.8	15.2	8.5	0.17
WQ5	2017-07-19	7.74	21.4	6.96	<3.0	0.04
WQ5	2017-09-06	7.68	28.6	9.46	<3.0	0.05
WQ5	2017-10-18	7.41	15.2	10.7	<3.0	0.10
WQ5	2018-02-23	7.76	35.8	4.15	<3.0	0.03
WQ5	2018-05-29	7.49	18.2	10.7	3.8	0.10
WQ5	2018-08-07	7.79	33	7.6	<3.0	0.03
WQ5	2018-11-29	7.51	24.6	8	<3.0	0.06
WQ5	2019-02-12	7.71	34.1	3.17	<3.0	0.02
WQ5	2019-05-13	7.19	14	12.7	8.2	0.16
WQ5	2019-08-12	7.4	18.3	11.8	5.8	0.12
WQ5	2019-11-18	7.18	14.3	13.5	<3.0	0.23
WQ5	2020-02-12	7.7	29.9	3.72	3	0.04
WQ5	2020-05-14	6.95	11.7	12.1	4.2	0.17
WQ5	2020-08-12	7.76	34.8	4.68	<3.0	0.02

Notes: Gray highlighted cells represent exceedances to the long-term British Columbia (BC) water quality guideline (WQGs) [BC ENV] 2001) of 0.05 mg/L; Gray highlighted cells and red font represent exceedances to both BC long-term and short-term (0.1 mg/L) WQGs.

Appendix C: Minutes Meeting Held with ENV, April 15th 2021

BW GOLD LTD

a subsidiary company of Artemis Gold Inc

BW GOLD LTD
a subsidiary company of Artemis Gold Inc

PROCESS FOR SUBMITTING DISSOLVED ALUMINUM SBEB

April 21, 2021

Participants

Affiliation	Names
BW Gold	Sachi De Souza
Lorax Environmental	Meghan Goertzen and Jorgelina Muscatello
MMO	Kristy Emery and Mohammad Vahedifar
Ministry of Environment and Climate Change Strategy (ENV)	Erin Rainey, Gabriele Matscha, Andrew Foster, Kristy Wade

Summary of Key Meeting Points

The purpose of the meeting was to understand ENV's requirements for documentation of the proposed dissolved aluminum science based environmental benchmark (SBEB).

Kristy (MMO) set the context for the meeting by explaining that recent discussions between BW Gold and ENV clarified that BW Gold would be seeking an effluent discharge permit for the operations phase of the Blackwater Project (and an effluent discharge permit for the closure and post-closure phases later).

BW Gold/Sachi explained that during the operations phase, BW Gold expects dissolved aluminum concentrations to exceed BC water quality guidelines based on the elevated baseline dissolved aluminum concentrations. BW Gold intends to apply for an SBEB for dissolved aluminum and derive the SBEB using the background method. Meghan explained that BW Gold wanted clarity on which items from the SBEB checklist would be required for a dissolved aluminum SBEB derived using the background approach. Specifically, if the development plan needed to include:

- Documentation of BAT and best management practices, and any that were rejected.
- Comprehensive site characterization.
- Effluent characterization and receiving water model projections.

From the discussion, specific to the dissolved aluminum SBEB based on the background approach, ENV advised BW Gold that:

- The BAT and BMP was not required for the aluminum SBEB;
- Site characterization should be described to demonstrate how other factors could affect aluminum toxicity; and
- Effluent characterization would not be critical since it is based on the background approach.

ENV's guidance to BW Gold for the aluminum SBEB, or any other SBEB based on the background approach was to:

- Provide the SBEB checklists (Appendices A and B) to ENV in advance of submitting the SBEB development plan and proposed SBEB so that ENV can understand the proposed approach; and

- Provide both the development plan and proposed SBEB with the joint application submission.

ENV's guidance to BW Gold for any SBEB not based on the background approach was to:

- Provide all information listed in the SBEB checklists;
- Review the checklists with ENV; and
- Provide development plans at least one month prior to application review. (If the application screening lasts one month, this would mean the latest BW Gold should provide the development plan would be when the application is submitted for screening).

BW Gold asked for clarification on ENV's best achievable technology (BAT) requirements for the JAR given the BW Gold is applying for an effluent discharge permit for the operations phase. BW Gold wanted to understand if the BAT assessment and the effects assessment presented in the JAR would only be for the operations phase. Erin explained that from ENV's perspective, the BAT and effects assessment would only be for the operations phase. ENV would not scrutinize closure or post-closure treatment relative to the BAT guidance. Sachi asked if EMLI also reviews the BAT or relies on it for its review. Kristy suggested that MMO follow up with EMLI to confirm the BAT would apply to the operations phase of the project.

Summary of Actions

Action item	Party	Date
1. BW Gold to provide SBEB checklists for dissolved aluminum based on the background approach to ENV	BW Gold	Completed – April 29
2. ENV review checklist and confirm requirements for the aluminum SBEB	ENV	Completed – May 4
3. MMO to follow up with EMLI to confirm the BAT would apply to the operations phase of the project for its needs as well.	MMO	

Appendix D: Water Quality Predictions for Dissolved Aluminum

BW GOLD LTD

a subsidiary company of Artemis Gold Inc

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2007-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2007-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2007-03-01 0:00	0.010	0.0097	0.009	0.009	0.075	0.075
2007-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2007-05-01 0:00	0.205	0.199	0.181	0.180	0.170	0.170
2007-06-01 0:00	0.144	0.138	0.126	0.124	0.193	0.193
2007-07-01 0:00	0.053	0.053	0.052	0.051	0.076	0.076
2007-08-01 0:00	0.049	0.049	0.048	0.046	0.054	0.054
2007-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2007-10-01 0:00	0.043	0.047	0.047	0.042	0.058	0.058
2007-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2007-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2008-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2008-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2008-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2008-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2008-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2008-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2008-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2008-08-01 0:00	0.049	0.049	0.047	0.046	0.054	0.054
2008-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2008-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2008-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2008-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
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2009-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2009-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2009-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2009-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2009-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2009-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2009-08-01 0:00	0.049	0.049	0.047	0.046	0.054	0.054
2009-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2009-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2009-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2009-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2010-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2010-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2010-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2010-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
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2010-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2010-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2010-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2010-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2010-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2011-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2011-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2011-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2011-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2011-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2011-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2011-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2011-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2011-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2011-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2011-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2011-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2012-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2012-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2012-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2012-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2012-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2012-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2012-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2012-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2012-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2012-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2012-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2012-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2013-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2013-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2013-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2013-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2013-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2013-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2013-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2013-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2013-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2013-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2013-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2013-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2014-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
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2014-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
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2014-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2014-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2014-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2014-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2014-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2014-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2014-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2014-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2015-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2015-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2015-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2015-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2015-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2015-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2015-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2015-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2015-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2015-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2015-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2015-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2016-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2016-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2016-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2016-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2016-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2016-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2016-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2016-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2016-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2016-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2016-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2016-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2017-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2017-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2017-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2017-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2017-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2017-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2017-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2017-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2017-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2017-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2017-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2017-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2018-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2018-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2018-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2018-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2018-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2018-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2018-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2018-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2018-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2018-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2018-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2018-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2019-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2019-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2019-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2019-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2019-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2019-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2019-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2019-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2019-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2019-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2019-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2019-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2020-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2020-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2020-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2020-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2020-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2020-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2020-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2020-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2020-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2020-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2020-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2020-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2021-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2021-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2021-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2021-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2021-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2021-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2021-07-01 0:00	0.053	0.053	0.051	0.050	0.076	0.076
2021-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2021-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2021-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2021-11-01 0:00	0.064	0.064	0.063	0.060	0.062	0.062
2021-12-01 0:00	0.033	0.033	0.032	0.030	0.221	0.221
2022-01-01 0:00	0.020	0.020	0.019	0.017	0.047	0.047
2022-02-01 0:00	0.015	0.015	0.014	0.012	0.032	0.032
2022-03-01 0:00	0.010	0.010	0.009	0.009	0.075	0.075
2022-04-01 0:00	0.017	0.017	0.017	0.017	0.119	0.119
2022-05-01 0:00	0.206	0.199	0.181	0.180	0.170	0.170
2022-06-01 0:00	0.144	0.138	0.126	0.125	0.193	0.193
2022-07-01 0:00	0.053	0.053	0.051	0.050	0.075	0.076
2022-08-01 0:00	0.049	0.049	0.047	0.045	0.054	0.054
2022-09-01 0:00	0.018	0.018	0.018	0.018	0.043	0.043
2022-10-01 0:00	0.043	0.045	0.045	0.042	0.058	0.058
2022-11-01 0:00	0.064	0.064	0.063	0.059	0.062	0.062
2022-12-01 0:00	0.033	0.033	0.032	0.029	0.219	0.221
2023-01-01 0:00	0.022	0.022	0.020	0.017	0.047	0.047
2023-02-01 0:00	0.022	0.021	0.014	0.012	0.032	0.032
2023-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2023-04-01 0:00	0.022	0.021	0.019	0.017	0.118	0.119
2023-05-01 0:00	0.130	0.130	0.132	0.133	0.169	0.169
2023-06-01 0:00	0.144	0.138	0.126	0.125	0.192	0.193
2023-07-01 0:00	0.101	0.098	0.077	0.071	0.075	0.076
2023-08-01 0:00	0.078	0.075	0.068	0.060	0.054	0.054
2023-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2023-10-01 0:00	0.056	0.058	0.056	0.050	0.058	0.058
2023-11-01 0:00	0.050	0.051	0.051	0.047	0.062	0.062
2023-12-01 0:00	0.051	0.049	0.044	0.038	0.219	0.221
2024-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2024-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2024-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2024-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2024-05-01 0:00	0.028	0.031	0.041	0.054	0.169	0.170
2024-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2024-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2024-08-01 0:00	0.102	0.098	0.068	0.062	0.054	0.054
2024-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2024-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2024-11-01 0:00	0.077	0.076	0.071	0.065	0.062	0.062
2024-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2025-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2025-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2025-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2025-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2025-05-01 0:00	0.046	0.047	0.052	0.062	0.169	0.170
2025-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2025-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2025-08-01 0:00	0.102	0.098	0.068	0.062	0.054	0.054
2025-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2025-10-01 0:00	0.085	0.085	0.073	0.054	0.058	0.058
2025-11-01 0:00	0.075	0.074	0.069	0.064	0.062	0.062
2025-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2026-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2026-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2026-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2026-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2026-05-01 0:00	0.040	0.041	0.048	0.061	0.169	0.170
2026-06-01 0:00	0.142	0.138	0.126	0.124	0.192	0.193
2026-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2026-08-01 0:00	0.102	0.098	0.068	0.063	0.054	0.054
2026-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2026-10-01 0:00	0.083	0.083	0.073	0.054	0.058	0.058
2026-11-01 0:00	0.074	0.073	0.069	0.063	0.062	0.062
2026-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2027-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2027-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2027-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2027-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2027-05-01 0:00	0.036	0.037	0.044	0.056	0.169	0.170
2027-06-01 0:00	0.142	0.138	0.126	0.125	0.192	0.193
2027-07-01 0:00	0.101	0.099	0.077	0.073	0.076	0.076
2027-08-01 0:00	0.102	0.098	0.068	0.063	0.054	0.054
2027-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2027-10-01 0:00	0.075	0.076	0.071	0.054	0.058	0.058
2027-11-01 0:00	0.060	0.060	0.058	0.054	0.062	0.062
2027-12-01 0:00	0.056	0.053	0.047	0.038	0.219	0.221
2028-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2028-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2028-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2028-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2028-05-01 0:00	0.037	0.038	0.045	0.056	0.169	0.170
2028-06-01 0:00	0.142	0.138	0.126	0.124	0.192	0.193
2028-07-01 0:00	0.101	0.098	0.077	0.072	0.076	0.076
2028-08-01 0:00	0.102	0.097	0.068	0.062	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2028-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2028-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2028-11-01 0:00	0.083	0.082	0.076	0.069	0.062	0.062
2028-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2029-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2029-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2029-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2029-04-01 0:00	0.022	0.022	0.021	0.021	0.118	0.119
2029-05-01 0:00	0.039	0.040	0.047	0.060	0.169	0.170
2029-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2029-07-01 0:00	0.101	0.098	0.077	0.071	0.076	0.076
2029-08-01 0:00	0.102	0.097	0.068	0.061	0.054	0.054
2029-09-01 0:00	0.053	0.050	0.035	0.023	0.043	0.043
2029-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2029-11-01 0:00	0.110	0.106	0.078	0.071	0.062	0.062
2029-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2030-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2030-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2030-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2030-04-01 0:00	0.022	0.021	0.021	0.020	0.118	0.119
2030-05-01 0:00	0.033	0.036	0.046	0.062	0.169	0.170
2030-06-01 0:00	0.114	0.114	0.113	0.112	0.192	0.193
2030-07-01 0:00	0.101	0.098	0.077	0.070	0.076	0.076
2030-08-01 0:00	0.102	0.097	0.068	0.062	0.054	0.054
2030-09-01 0:00	0.053	0.051	0.035	0.023	0.043	0.043
2030-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2030-11-01 0:00	0.088	0.087	0.078	0.070	0.062	0.062
2030-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2031-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2031-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2031-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2031-04-01 0:00	0.022	0.021	0.021	0.020	0.118	0.119
2031-05-01 0:00	0.032	0.034	0.044	0.057	0.169	0.170
2031-06-01 0:00	0.100	0.100	0.100	0.100	0.192	0.193
2031-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2031-08-01 0:00	0.102	0.098	0.068	0.062	0.054	0.054
2031-09-01 0:00	0.053	0.052	0.035	0.023	0.043	0.043
2031-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2031-11-01 0:00	0.081	0.081	0.074	0.066	0.062	0.062
2031-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221
2032-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2032-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2032-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2032-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2032-05-01 0:00	0.032	0.032	0.043	0.055	0.169	0.170
2032-06-01 0:00	0.098	0.098	0.098	0.098	0.192	0.193
2032-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2032-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2032-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2032-10-01 0:00	0.093	0.088	0.073	0.054	0.058	0.058
2032-11-01 0:00	0.078	0.078	0.072	0.064	0.062	0.062
2032-12-01 0:00	0.070	0.064	0.047	0.038	0.219	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2033-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2033-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2033-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2033-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2033-05-01 0:00	0.079	0.079	0.084	0.091	0.169	0.170
2033-06-01 0:00	0.085	0.085	0.086	0.088	0.192	0.193
2033-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2033-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2033-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2033-10-01 0:00	0.057	0.057	0.055	0.049	0.058	0.058
2033-11-01 0:00	0.048	0.048	0.048	0.045	0.062	0.062
2033-12-01 0:00	0.045	0.045	0.039	0.034	0.219	0.221
2034-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2034-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2034-03-01 0:00	0.021	0.018	0.011	0.009	0.075	0.075
2034-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2034-05-01 0:00	0.099	0.099	0.103	0.108	0.169	0.170
2034-06-01 0:00	0.094	0.094	0.095	0.095	0.192	0.193
2034-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2034-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2034-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2034-10-01 0:00	0.064	0.064	0.060	0.054	0.058	0.058
2034-11-01 0:00	0.053	0.053	0.052	0.048	0.062	0.062
2034-12-01 0:00	0.050	0.050	0.044	0.038	0.219	0.221
2035-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2035-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2035-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2035-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2035-05-01 0:00	0.086	0.086	0.091	0.097	0.169	0.170
2035-06-01 0:00	0.092	0.092	0.093	0.094	0.192	0.193
2035-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2035-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2035-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2035-10-01 0:00	0.078	0.078	0.070	0.054	0.058	0.058
2035-11-01 0:00	0.058	0.058	0.056	0.051	0.062	0.062
2035-12-01 0:00	0.050	0.050	0.043	0.037	0.218	0.221
2036-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2036-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2036-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2036-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2036-05-01 0:00	0.085	0.085	0.089	0.096	0.169	0.170
2036-06-01 0:00	0.093	0.093	0.093	0.094	0.192	0.193
2036-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2036-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2036-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2036-10-01 0:00	0.078	0.078	0.073	0.054	0.058	0.058
2036-11-01 0:00	0.056	0.056	0.054	0.050	0.062	0.062
2036-12-01 0:00	0.049	0.049	0.043	0.037	0.218	0.221
2037-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2037-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2037-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2037-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2037-05-01 0:00	0.084	0.084	0.089	0.096	0.169	0.170
2037-06-01 0:00	0.093	0.093	0.094	0.095	0.192	0.193
2037-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2037-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2037-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2037-10-01 0:00	0.074	0.074	0.067	0.054	0.058	0.058
2037-11-01 0:00	0.054	0.054	0.052	0.048	0.062	0.062
2037-12-01 0:00	0.049	0.048	0.043	0.037	0.218	0.221
2038-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2038-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2038-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2038-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2038-05-01 0:00	0.084	0.084	0.089	0.096	0.169	0.170
2038-06-01 0:00	0.093	0.093	0.094	0.095	0.192	0.193
2038-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2038-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2038-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2038-10-01 0:00	0.074	0.074	0.067	0.054	0.058	0.058
2038-11-01 0:00	0.054	0.054	0.053	0.048	0.062	0.062
2038-12-01 0:00	0.049	0.049	0.043	0.037	0.218	0.221
2039-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2039-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2039-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2039-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2039-05-01 0:00	0.085	0.085	0.090	0.097	0.169	0.170
2039-06-01 0:00	0.094	0.094	0.094	0.095	0.192	0.193
2039-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2039-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2039-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2039-10-01 0:00	0.075	0.075	0.068	0.054	0.058	0.058
2039-11-01 0:00	0.055	0.055	0.053	0.049	0.062	0.062
2039-12-01 0:00	0.050	0.050	0.044	0.038	0.218	0.221
2040-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2040-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2040-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2040-04-01 0:00	0.022	0.022	0.021	0.020	0.118	0.119
2040-05-01 0:00	0.085	0.085	0.090	0.097	0.169	0.170
2040-06-01 0:00	0.094	0.094	0.094	0.095	0.192	0.193
2040-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2040-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2040-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2040-10-01 0:00	0.069	0.069	0.063	0.054	0.058	0.058
2040-11-01 0:00	0.055	0.055	0.053	0.049	0.062	0.062
2040-12-01 0:00	0.050	0.050	0.044	0.038	0.218	0.221
2041-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2041-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2041-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2041-04-01 0:00	0.022	0.021	0.020	0.018	0.118	0.119
2041-05-01 0:00	0.119	0.119	0.123	0.127	0.169	0.170
2041-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2041-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2041-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2041-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2041-10-01 0:00	0.042	0.042	0.042	0.036	0.058	0.058
2041-11-01 0:00	0.046	0.046	0.047	0.042	0.062	0.062
2041-12-01 0:00	0.051	0.051	0.044	0.036	0.218	0.221
2042-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2042-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2042-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2042-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2042-05-01 0:00	0.118	0.118	0.120	0.125	0.169	0.170
2042-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2042-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2042-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2042-09-01 0:00	0.053	0.052	0.035	0.023	0.042	0.043
2042-10-01 0:00	0.039	0.039	0.041	0.035	0.058	0.058
2042-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2042-12-01 0:00	0.050	0.050	0.043	0.036	0.218	0.221
2043-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2043-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2043-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2043-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2043-05-01 0:00	0.118	0.118	0.121	0.125	0.169	0.170
2043-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2043-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2043-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2043-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2043-10-01 0:00	0.040	0.040	0.041	0.035	0.058	0.058
2043-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2043-12-01 0:00	0.052	0.051	0.044	0.038	0.218	0.221
2044-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2044-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2044-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2044-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2044-05-01 0:00	0.118	0.118	0.121	0.125	0.169	0.170
2044-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2044-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2044-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2044-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2044-10-01 0:00	0.040	0.040	0.041	0.036	0.058	0.058
2044-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2044-12-01 0:00	0.052	0.052	0.044	0.037	0.218	0.221
2045-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2045-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2045-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2045-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2045-05-01 0:00	0.119	0.119	0.121	0.126	0.169	0.170
2045-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2045-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2045-08-01 0:00	0.102	0.098	0.068	0.060	0.054	0.054
2045-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2045-10-01 0:00	0.043	0.043	0.043	0.037	0.058	0.058
2045-11-01 0:00	0.047	0.047	0.048	0.043	0.062	0.062
2045-12-01 0:00	0.049	0.049	0.042	0.036	0.218	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2046-01-01 0:00	0.039	0.037	0.026	0.017	0.046	0.047
2046-02-01 0:00	0.026	0.024	0.014	0.012	0.031	0.032
2046-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2046-04-01 0:00	0.022	0.022	0.020	0.018	0.118	0.119
2046-05-01 0:00	0.112	0.112	0.115	0.119	0.169	0.170
2046-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2046-07-01 0:00	0.101	0.099	0.077	0.070	0.075	0.076
2046-08-01 0:00	0.102	0.098	0.068	0.061	0.054	0.054
2046-09-01 0:00	0.053	0.053	0.035	0.023	0.042	0.043
2046-10-01 0:00	0.057	0.057	0.054	0.045	0.058	0.058
2046-11-01 0:00	0.045	0.045	0.046	0.042	0.062	0.062
2046-12-01 0:00	0.065	0.064	0.047	0.038	0.218	0.221
2047-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2047-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2047-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2047-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2047-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2047-06-01 0:00	0.112	0.111	0.111	0.111	0.192	0.193
2047-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2047-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2047-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2047-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2047-11-01 0:00	0.037	0.036	0.039	0.037	0.062	0.062
2047-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2048-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2048-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2048-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2048-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2048-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2048-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2048-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2048-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2048-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2048-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2048-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2048-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2049-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2049-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2049-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2049-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2049-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2049-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2049-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2049-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2049-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2049-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2049-11-01 0:00	0.037	0.036	0.039	0.037	0.062	0.062
2049-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2050-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2050-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2050-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2050-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2050-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2050-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2050-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2050-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2050-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2050-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2050-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2050-12-01 0:00	0.050	0.050	0.043	0.036	0.219	0.221
2051-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2051-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2051-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2051-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2051-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2051-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2051-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2051-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2051-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2051-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2051-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2051-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2052-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2052-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2052-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2052-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2052-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2052-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2052-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2052-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2052-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2052-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2052-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2052-12-01 0:00	0.048	0.048	0.042	0.036	0.219	0.221
2053-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2053-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2053-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2053-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2053-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2053-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2053-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2053-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2053-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2053-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2053-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2053-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2054-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2054-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2054-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2054-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2054-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2054-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2054-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2054-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2054-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2054-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2054-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2054-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2055-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2055-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2055-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2055-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2055-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2055-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2055-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2055-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2055-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2055-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2055-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2055-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2056-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2056-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2056-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2056-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2056-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2056-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2056-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2056-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2056-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2056-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2056-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2056-12-01 0:00	0.048	0.048	0.042	0.036	0.219	0.221
2057-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2057-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2057-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2057-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2057-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2057-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2057-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2057-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2057-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2057-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2057-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2057-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2058-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2058-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2058-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2058-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2058-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2058-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2058-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2058-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2058-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2058-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2058-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2058-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2059-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2059-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2059-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2059-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2059-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2059-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2059-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2059-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2059-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2059-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2059-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2059-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2060-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2060-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2060-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2060-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2060-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2060-06-01 0:00	0.111	0.111	0.111	0.110	0.192	0.193
2060-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2060-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2060-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2060-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2060-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2060-12-01 0:00	0.048	0.048	0.042	0.036	0.219	0.221
2061-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2061-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2061-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2061-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2061-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2061-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2061-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2061-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2061-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2061-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2061-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2061-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2062-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2062-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2062-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2062-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2062-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2062-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2062-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2062-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2062-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2062-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2062-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2062-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2063-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2063-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2063-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2063-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2063-05-01 0:00	0.113	0.113	0.118	0.124	0.169	0.170
2063-06-01 0:00	0.112	0.112	0.111	0.111	0.192	0.193
2063-07-01 0:00	0.101	0.099	0.077	0.070	0.076	0.076
2063-08-01 0:00	0.102	0.098	0.068	0.059	0.054	0.054
2063-09-01 0:00	0.053	0.053	0.035	0.023	0.043	0.043
2063-10-01 0:00	0.051	0.051	0.050	0.043	0.058	0.058
2063-11-01 0:00	0.036	0.036	0.039	0.037	0.062	0.062
2063-12-01 0:00	0.048	0.048	0.042	0.035	0.219	0.221
2064-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2064-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2064-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2064-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2064-05-01 0:00	0.120	0.120	0.127	0.132	0.169	0.170
2064-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2064-07-01 0:00	0.071	0.071	0.062	0.055	0.076	0.076
2064-08-01 0:00	0.050	0.050	0.045	0.039	0.054	0.054
2064-09-01 0:00	0.046	0.046	0.035	0.023	0.043	0.043
2064-10-01 0:00	0.035	0.035	0.037	0.033	0.058	0.058
2064-11-01 0:00	0.046	0.046	0.046	0.042	0.062	0.062
2064-12-01 0:00	0.041	0.041	0.037	0.032	0.219	0.221
2065-01-01 0:00	0.039	0.037	0.026	0.017	0.047	0.047
2065-02-01 0:00	0.026	0.024	0.014	0.012	0.032	0.032
2065-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2065-04-01 0:00	0.022	0.022	0.020	0.019	0.118	0.119
2065-05-01 0:00	0.164	0.164	0.162	0.161	0.169	0.170
2065-06-01 0:00	0.144	0.138	0.126	0.124	0.192	0.193
2065-07-01 0:00	0.060	0.060	0.053	0.049	0.076	0.076
2065-08-01 0:00	0.043	0.043	0.039	0.036	0.054	0.054
2065-09-01 0:00	0.043	0.042	0.035	0.023	0.043	0.043
2065-10-01 0:00	0.036	0.036	0.037	0.034	0.058	0.058
2065-11-01 0:00	0.040	0.040	0.041	0.039	0.062	0.062
2065-12-01 0:00	0.038	0.038	0.034	0.030	0.218	0.221
2066-01-01 0:00	0.027	0.027	0.024	0.017	0.047	0.047
2066-02-01 0:00	0.025	0.024	0.014	0.012	0.032	0.032
2066-03-01 0:00	0.021	0.018	0.011	0.009	0.074	0.075
2066-04-01 0:00	0.016	0.016	0.016	0.015	0.118	0.119
2066-05-01 0:00	0.105	0.106	0.113	0.119	0.169	0.170
2066-06-01 0:00	0.103	0.103	0.102	0.103	0.192	0.193
2066-07-01 0:00	0.041	0.041	0.039	0.037	0.076	0.076
2066-08-01 0:00	0.023	0.023	0.023	0.023	0.054	0.054
2066-09-01 0:00	0.015	0.015	0.015	0.015	0.043	0.043
2066-10-01 0:00	0.015	0.015	0.017	0.017	0.058	0.058
2066-11-01 0:00	0.017	0.017	0.021	0.022	0.062	0.062
2066-12-01 0:00	0.012	0.012	0.013	0.013	0.218	0.221
2067-01-01 0:00	0.012	0.012	0.012	0.012	0.047	0.047
2067-02-01 0:00	0.012	0.012	0.012	0.012	0.032	0.032
2067-03-01 0:00	0.012	0.012	0.011	0.009	0.074	0.075
2067-04-01 0:00	0.011	0.011	0.012	0.012	0.118	0.119
2067-05-01 0:00	0.076	0.076	0.081	0.086	0.169	0.170
2067-06-01 0:00	0.042	0.042	0.046	0.052	0.192	0.193
2067-07-01 0:00	0.017	0.017	0.017	0.017	0.076	0.076
2067-08-01 0:00	0.014	0.014	0.015	0.015	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2067-09-01 0:00	0.006	0.006	0.007	0.008	0.043	0.043
2067-10-01 0:00	0.015	0.015	0.016	0.016	0.058	0.058
2067-11-01 0:00	0.016	0.016	0.020	0.021	0.062	0.062
2067-12-01 0:00	0.007	0.007	0.010	0.010	0.218	0.221
2068-01-01 0:00	0.005	0.005	0.006	0.007	0.047	0.047
2068-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2068-03-01 0:00	0.003	0.003	0.004	0.005	0.074	0.075
2068-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2068-05-01 0:00	0.076	0.076	0.081	0.087	0.170	0.170
2068-06-01 0:00	0.043	0.043	0.048	0.053	0.193	0.193
2068-07-01 0:00	0.017	0.017	0.017	0.017	0.076	0.076
2068-08-01 0:00	0.014	0.014	0.015	0.015	0.054	0.054
2068-09-01 0:00	0.006	0.006	0.007	0.008	0.043	0.043
2068-10-01 0:00	0.015	0.015	0.017	0.017	0.058	0.058
2068-11-01 0:00	0.016	0.017	0.020	0.022	0.062	0.062
2068-12-01 0:00	0.007	0.008	0.010	0.011	0.220	0.221
2069-01-01 0:00	0.005	0.005	0.006	0.007	0.047	0.047
2069-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2069-03-01 0:00	0.003	0.003	0.004	0.005	0.075	0.075
2069-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2069-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2069-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2069-07-01 0:00	0.017	0.017	0.017	0.017	0.076	0.076
2069-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2069-09-01 0:00	0.006	0.006	0.007	0.008	0.043	0.043
2069-10-01 0:00	0.015	0.016	0.017	0.017	0.058	0.058
2069-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2069-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2070-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2070-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2070-03-01 0:00	0.003	0.003	0.004	0.005	0.075	0.075
2070-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2070-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2070-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2070-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2070-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2070-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2070-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2070-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2070-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2071-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2071-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2071-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2071-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2071-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2071-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2071-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2071-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2071-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2071-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2071-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2071-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2072-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2072-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2072-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2072-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2072-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2072-06-01 0:00	0.043	0.044	0.048	0.054	0.193	0.193
2072-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2072-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2072-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2072-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2072-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2072-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2073-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2073-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2073-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2073-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2073-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2073-06-01 0:00	0.044	0.045	0.048	0.054	0.193	0.193
2073-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2073-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2073-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2073-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2073-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2073-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2074-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2074-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2074-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2074-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2074-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2074-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2074-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2074-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2074-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2074-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2074-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2074-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2075-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2075-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2075-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2075-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2075-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2075-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2075-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2075-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2075-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2075-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2075-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2075-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2076-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2076-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2076-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2076-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2076-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2076-06-01 0:00	0.044	0.045	0.050	0.055	0.193	0.193
2076-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2076-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2076-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2076-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2076-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2076-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2077-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2077-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2077-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2077-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2077-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2077-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2077-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2077-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2077-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2077-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2077-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2077-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2078-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2078-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2078-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2078-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2078-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2078-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2078-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2078-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2078-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2078-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2078-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2078-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2079-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2079-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2079-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2079-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2079-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2079-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2079-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2079-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2079-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2079-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2079-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2079-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2080-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2080-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2080-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2080-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2080-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2080-06-01 0:00	0.044	0.045	0.050	0.055	0.193	0.193
2080-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2080-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2080-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2080-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2080-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2080-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2081-01-01 0:00	0.005	0.005	0.007	0.007	0.047	0.047
2081-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2081-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2081-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2081-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2081-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2081-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2081-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2081-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2081-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2081-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2081-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2082-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2082-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2082-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2082-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2082-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2082-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2082-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2082-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2082-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2082-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2082-11-01 0:00	0.016	0.017	0.021	0.022	0.062	0.062
2082-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2083-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2083-02-01 0:00	0.004	0.004	0.005	0.006	0.032	0.032
2083-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2083-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2083-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2083-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2083-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2083-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2083-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2083-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2083-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2083-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2084-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2084-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2084-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2084-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2084-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2084-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2084-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2084-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2084-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2084-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2084-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2084-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2085-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2085-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2085-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2085-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2085-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2085-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2085-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2085-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2085-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2085-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2085-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2085-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2086-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2086-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2086-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2086-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2086-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2086-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2086-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2086-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2086-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2086-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2086-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2086-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2087-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2087-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2087-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2087-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2087-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2087-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2087-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2087-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2087-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2087-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2087-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2087-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2088-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2088-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2088-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2088-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2088-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2088-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2088-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2088-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2088-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2088-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2088-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2088-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2089-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2089-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2089-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2089-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2089-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2089-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2089-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2089-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2089-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2089-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2089-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2089-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2090-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2090-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2090-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2090-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2090-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2090-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2090-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2090-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2090-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2090-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2090-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2090-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2091-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2091-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2091-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2091-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2091-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2091-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2091-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2091-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2091-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2091-10-01 0:00	0.015	0.016	0.018	0.017	0.058	0.058
2091-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2091-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2092-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2092-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2092-03-01 0:00	0.003	0.004	0.004	0.005	0.075	0.075
2092-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2092-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2092-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2092-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2092-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2092-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2092-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2092-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2092-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2093-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2093-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2093-03-01 0:00	0.004	0.004	0.004	0.005	0.075	0.075
2093-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2093-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2093-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2093-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2093-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2093-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2093-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2093-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2093-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2094-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2094-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2094-03-01 0:00	0.004	0.004	0.004	0.005	0.075	0.075
2094-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2094-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2094-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2094-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2094-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2094-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2094-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2094-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2094-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2095-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2095-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2095-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2095-04-01 0:00	0.008	0.008	0.009	0.010	0.119	0.119
2095-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2095-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2095-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2095-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2095-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2095-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2095-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2095-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2096-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2096-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2096-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2096-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2096-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2096-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2096-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2096-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2096-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2096-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2096-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2096-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2097-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2097-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2097-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2097-04-01 0:00	0.008	0.009	0.009	0.010	0.119	0.119
2097-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2097-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2097-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2097-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2097-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2097-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2097-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2097-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2098-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2098-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2098-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2098-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2098-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2098-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2098-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2098-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2098-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2098-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2098-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2098-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2099-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2099-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2099-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2099-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2099-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2099-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2099-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2099-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2099-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2099-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2099-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2099-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2100-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2100-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2100-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2100-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2100-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2100-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2100-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2100-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2100-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2100-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2100-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2100-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2101-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2101-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2101-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2101-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2101-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2101-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2101-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2101-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2101-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2101-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2101-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2101-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2102-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2102-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2102-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2102-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2102-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2102-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2102-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2102-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2102-09-01 0:00	0.006	0.006	0.008	0.008	0.043	0.043
2102-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2102-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2102-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2103-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2103-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2103-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2103-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2103-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2103-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2103-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2103-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2103-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2103-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2103-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2103-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2104-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2104-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2104-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2104-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2104-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2104-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2104-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2104-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2104-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2104-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2104-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2104-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2105-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2105-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2105-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2105-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2105-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2105-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2105-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2105-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2105-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2105-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2105-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2105-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2106-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2106-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2106-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2106-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2106-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2106-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2106-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2106-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2106-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2106-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2106-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2106-12-01 0:00	0.007	0.008	0.011	0.011	0.220	0.221
2107-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2107-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2107-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2107-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2107-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2107-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2107-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2107-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2107-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2107-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2107-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2107-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2108-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2108-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2108-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2108-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2108-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2108-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2108-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2108-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2108-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2108-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2108-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2108-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2109-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2109-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2109-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2109-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2109-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2109-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2109-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2109-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2109-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2109-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2109-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2109-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2110-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2110-02-01 0:00	0.004	0.005	0.006	0.006	0.032	0.032
2110-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2110-04-01 0:00	0.008	0.009	0.009	0.011	0.119	0.119
2110-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2110-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2110-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2110-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2110-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2110-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2110-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2110-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2111-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2111-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2111-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2111-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2111-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2111-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2111-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2111-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2111-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2111-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2111-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2111-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2112-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2112-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2112-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2112-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2112-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2112-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2112-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2112-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2112-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2112-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2112-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2112-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2113-01-01 0:00	0.005	0.006	0.007	0.007	0.047	0.047
2113-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2113-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2113-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2113-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2113-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2113-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2113-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2113-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2113-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2113-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2113-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2114-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2114-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2114-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2114-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2114-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2114-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2114-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2114-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2114-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2114-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2114-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2114-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2115-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2115-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2115-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2115-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2115-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2115-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2115-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2115-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2115-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2115-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2115-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2115-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2116-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2116-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2116-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2116-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2116-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2116-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2116-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2116-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2116-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2116-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2116-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2116-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2117-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2117-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2117-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2117-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2117-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2117-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2117-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2117-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2117-09-01 0:00	0.006	0.006	0.008	0.009	0.043	0.043
2117-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2117-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2117-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2118-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2118-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2118-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2118-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2118-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2118-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2118-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2118-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2118-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2118-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2118-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2118-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2119-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2119-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2119-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2119-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2119-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2119-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2119-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2119-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2119-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2119-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2119-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2119-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2120-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2120-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2120-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2120-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2120-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2120-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2120-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2120-08-01 0:00	0.014	0.014	0.015	0.016	0.054	0.054
2120-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2120-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2120-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2120-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2121-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2121-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2121-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2121-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2121-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2121-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2121-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2121-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2121-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2121-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2121-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2121-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2122-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2122-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2122-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2122-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2122-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2122-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2122-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2122-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2122-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2122-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2122-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2122-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2123-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2123-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2123-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2123-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2123-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2123-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2123-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2123-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2123-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2123-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2123-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2123-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2124-01-01 0:00	0.005	0.006	0.007	0.008	0.047	0.047
2124-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2124-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2124-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2124-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2124-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2124-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2124-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2124-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2124-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2124-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2124-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2125-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2125-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2125-03-01 0:00	0.004	0.004	0.005	0.005	0.075	0.075
2125-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2125-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2125-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2125-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2125-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2125-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2125-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2125-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2125-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2126-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2126-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2126-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
2126-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2126-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2126-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2126-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2126-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2126-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2126-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2126-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2126-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2127-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2127-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2127-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
2127-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2127-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2127-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2127-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2127-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2127-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2127-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2127-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2127-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2128-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2128-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2128-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
2128-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2128-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2128-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193

Date	WQ28	WQ27	WQ26	WQ7	WQ5	WQCK661
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Percentile	95%	95%	95%	95%	95%	95%
2128-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2128-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2128-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2128-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2128-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2128-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2129-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2129-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2129-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
2129-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2129-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2129-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2129-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2129-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2129-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2129-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2129-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2129-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2130-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
2130-02-01 0:00	0.005	0.005	0.006	0.006	0.032	0.032
2130-03-01 0:00	0.004	0.005	0.005	0.005	0.075	0.075
2130-04-01 0:00	0.009	0.009	0.009	0.011	0.119	0.119
2130-05-01 0:00	0.076	0.077	0.082	0.087	0.170	0.170
2130-06-01 0:00	0.044	0.045	0.050	0.056	0.193	0.193
2130-07-01 0:00	0.017	0.017	0.017	0.018	0.076	0.076
2130-08-01 0:00	0.014	0.015	0.015	0.016	0.054	0.054
2130-09-01 0:00	0.006	0.007	0.008	0.009	0.043	0.043
2130-10-01 0:00	0.015	0.016	0.018	0.018	0.058	0.058
2130-11-01 0:00	0.017	0.018	0.021	0.023	0.062	0.062
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2131-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047
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2132-11-01 0:00	0.017	0.018	0.021	0.022	0.062	0.062
2132-12-01 0:00	0.008	0.009	0.011	0.011	0.220	0.221
2133-01-01 0:00	0.006	0.006	0.007	0.008	0.047	0.047

MEMORANDUM

To:	**BW Gold Ltd.**		**Date: September 21, 2021**
From:	**Meghan Goertzen, Jorgelina Muscatello, Alan Martin**		**Project #: A599-1**
Subject:	**Consideration of Yinka Dene Water Law in Dissolved Aluminum SBEB Development**		

1. Introduction

This memorandum has been generated pursuant to Condition 26(c) of Schedule B of Environmental Assessment (EA) Certificate #M19-01 for the Blackwater Gold Project (the Project), owned by BW Gold Ltd. (a subsidiary of Artemis Gold Inc.), which states:

> *If the Holder develops SBEBs* [Science-Based Environmental Benchmarks]*, the Holder must produce a report that clearly documents how the YDWL* [Yinka Dene Water Law] *and any other Aboriginal water policies referenced in paragraph b) iii) were considered in the development of SBEBs. Where site specific standards or metrics for YDWL for Davidson Creek or another Aboriginal Group's water policies for Davidson Creek and/or Creek 661 are made available to the Holder, the report must include a comparison of how the SBEB compares to those standards or metrics. The report must be provided to ENV* [British Columbia Ministry of Environment and Climate Change Strategy], *EMPR* [British Columbia Ministry of Energy, Mines, and Low Carbon Innovation]*, EAO* [Environmental Assessment Office]*, and Aboriginal Groups in accordance with the time set out in Condition 10, the Document Submission Plan, and be to the satisfaction of the EAO.*

Condition 26(a) of the EA Certificate #M19-01 states that water quality in Davidson Creek and Creek 661 must meet British Columbia (BC) water quality guidelines (WQGs) or approved SBEBs over the course of the proposed Project life. Baseline surface water quality monitoring in the Project area identified concentrations of dissolved aluminum (D-Al) routinely above short-term and long-term BC WQGs in Davidson Creek and Creek 661, thus warranting the development of an SBEB for this element as per BC ENV (2016).

A specific water standard for Al concentrations in these creeks is not prescribed under YDWL (2016). Therefore, the present memorandum provides a comparison of the methods used to derive the SBEB with YDWL (2016) methods for water standard derivation in Davidson Creek and Creek 661.

2. Comparison of Proposed Science-Based Environmental Benchmarks to Yinka Dene Water Law

2.1 Science-Based Environmental Benchmark Development

The BC WQG for Al applies to the dissolved metal fraction (Ministry of Environment and Climate Change Strategy Province of British Columbia [BC ENV], 2001). The long-term and short-term guidelines for D-Al are 50 µg/L and 100 µg/L, respectively, for water bodies with pH values greater than or equal to 6.5. At pH values less than 6.5, both guidelines are lower and pH dependent. Additional BC WQGs for Al applicable to the Project include drinking/aesthetics (9.5 mg D-Al/L; BC ENV 2020), and wildlife/livestock/irrigation (5 mg T-Al/L).

The CCME WQG for Al applies to the total metal fraction (CCREM 1987). The long-term guideline for total Al (T-Al) is 100 µg/L for water bodies with pH values greater than or equal to 6.5, and 5 µg/L at pH values less than 6.5. There is no corresponding short-term CCME WQG for T-Al.

As noted above, baseline monitoring for Davidson Creek and Creek 661 shows routine exceedances of these values. Total and dissolved Al concentrations are notably elevated for several months of the year, with concentrations for all Davidson Creek and Creek 661 stations downstream of the proposed Project footprint commonly above both the BC and CCME long-term WQG. The seasonal signature in D-Al concentrations at all stations resembles the annual hydrograph, with annual maxima and minima occurring during spring (or early summer) and winter low-flow periods, respectively. The pH for all stations has remained above 6.5 over the baseline monitoring period, and is expected to remain so over the Project lifetime.

Based on the above assessment, seasonal SBEBs for Davidson Creek and Creek 661 were developed for D-Al using the background concentration procedure calculated as the 95th percentile statistic plus 20%, per BC ENV (2013, 2016), for distinct seasonal periods within the annual hydrograph. The SBEBs were developed using baseline data for D-Al and are proposed to apply to the dissolved metal fraction, rather than total, to better align with the BC WQG for D-Al.

2.2 Yinka Dene Water Law

Overall, the development of the proposed SBEBs followed an approach similar to that prescribed for the development of Class II standards per YDWL (2016). Lorax understands that watercourses below the Project fall into three categories for water standards under YDWL:

- Class 3 standards (sensitive use proptection approach) in Davidson Creek and Creek 661;
- Class 2 standards (enhanced protection appraoch) in Chedakuz Creek where a maximum of 50% of the assimilative capacity can be consumed, and

- Class 1 standards (non-degradation appraoch) applicable to the Nechako Reservoir.

YDWL (2016) prescribes the following approach for identifying Class 3 standards for a given water body:

- Identify designated water uses;
- Compile numerical WQGs for each water use (*i.e.*, B.C. WQGs and Canadian Council of Ministers of the Environment (CCME)) and select the lower of the two values for the potential standard.
- Select the WQG for the most sensitive water use (*e.g.*, aquatic life, wildlife, human health) as the preliminary standard;
- Compare the preliminary standard to the upper limit of background concentrations to ensure that standard would be consistently achievable based on background concentrations measured in the baseline dataset; and
- Adjust the preliminary standard, as necessary, using appropriate procedures such as the background concentration procedure. It is noted standards can be established in a number of ways using the background concentration procedure.

Lorax identifies the primary sensitive use for Davidson Creek and Creek 661 as aquatic life. Other sensitive uses may include wildlife, irrigation (in lower Davidson Creek), or drinking water (limited to occasional recreational/traditional use [*e.g.,* intermittent fishing, hunting, *etc*.]); however aluminum WQGs for these uses are higher than BC or CCME WQGs for aquatic life. Therefore, concentrations below the derived SBEB value for aquatic biota will also be protective of wildlife and human receptors. Given baseline concentrations of both T-Al and D-Al in Davidson Creek and Creek 661 are naturally above their respective WQGs for the protection of aquatic life, the background concentration procedure was used to calculate benchmarks (*i.e.*, proposed SBEBS) applicable to the Project. This approach is consistent with YDWL methods.

3. Closure

We trust that the information provided herein is sufficient for your present needs. Should you require anything further, please contact the undersigned.

Yours sincerely,

Lorax Environmental Services Ltd.

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