Environment | Water Resources Branch

Water Licence Audit Report

Eagle Gold Mine

Date of site visit: September 9-12, 2019

Licensee: Strata Gold Corporation

Licence numbers: QZ14-041-1 and QZ16-016 (both expire 2040-09-10)

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Distribution list: YG: EMR-CMI, ENV-EA, ENV-EPA; Strata Gold Corp.

The Water Resource Branch (WRB) is responsible for monitoring surface and groundwater in Yukon and is committed to responsible management, protection and conservation of the territory's water resources. As technical experts in water resources, we provide advice for compliance and inspections purposes and conduct reviews of projects undergoing water licensing and environmental assessment processes.

One of WRB's responsibilities is to conduct audits of various undertakings that use or deposit waste to water. Site visits are undertaken to improve understanding of a project's effects on the receiving water environment, with the intention of identifying emerging issues and enhancing understanding of existing water quality and quantity conditions to support technical advice and input into assessment, licensing, and post-licensing processes. This report presents the authors' opinions and the recommendations expressed in this report are based on data, reports, and evidence available to WRB at the time of writing.

On September 10-11, 2019, WRB visited the mine site to gain familiarity of site operations and collect water quality samples (see Figure 1). The objectives of the audit were to:

1. Compare water quality samples to Effluent Quality Standards (EQS) and Water Quality Objectives (WQO).
2. Assess variability of arsenic concentrations and better understand arsenic speciation.
3. Assess the relationship between total suspended solids (TSS) and arsenic.
4. Document and sample the camp sewage system.

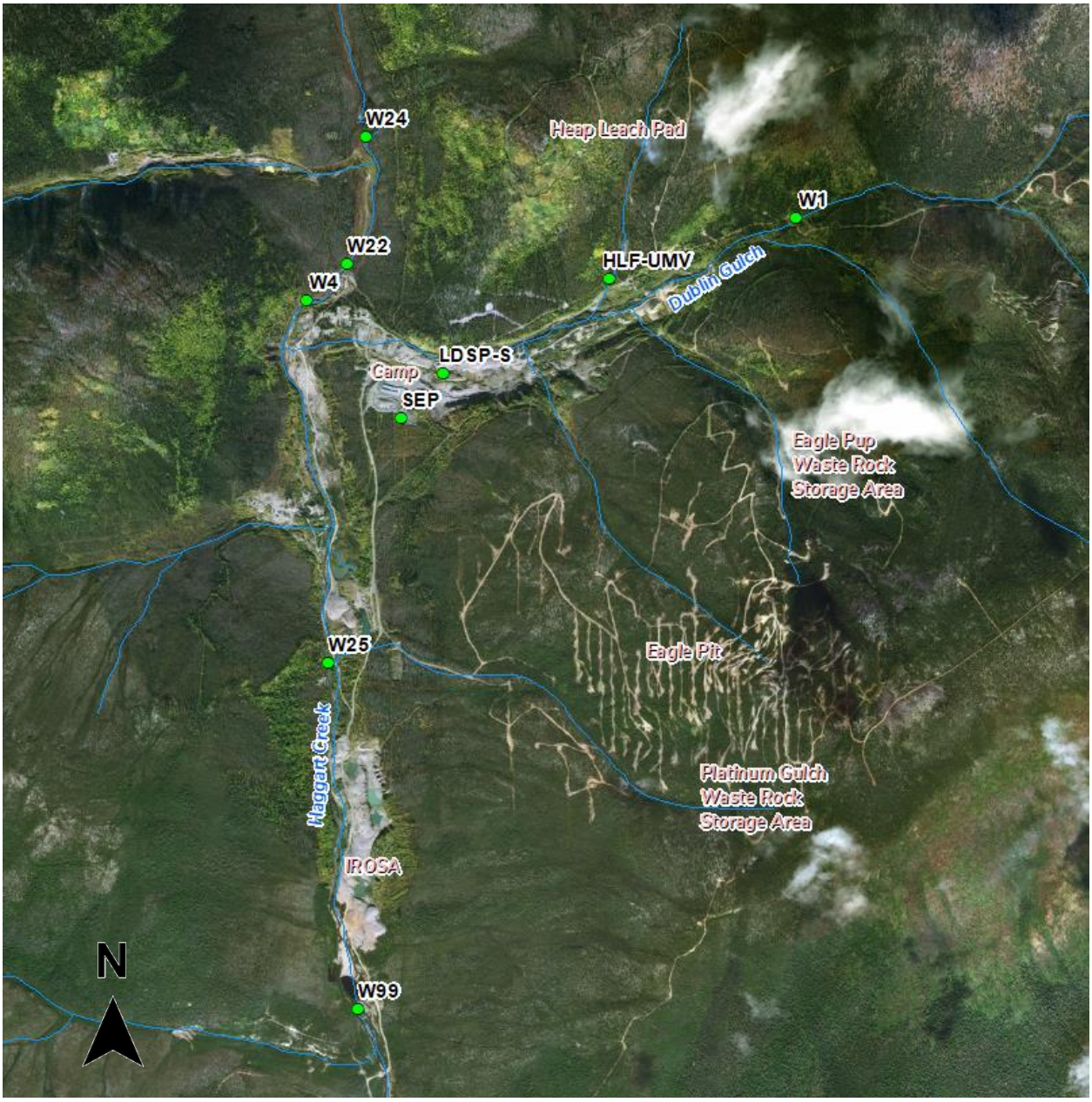

Figure 1: Surface water quality stations sampled on September 10-11, 2019 by WRB.

Key Findings

- Water quality stations that are below the project influence have not shown a statistically significant difference in total arsenic concentrations since the start of Phase 1 Construction (August 18, 2017).
- Adaptive Management Plan (AMP) thresholds and Water Quality Objectives (WQOs) were compared to applicable stations (W4 and W99) and there were no threshold exceedances in the samples collected during the visit.
- Arsenate (As(V)) is the dominant arsenic species in surface water samples collected during the audit at W1, W4, W99 and LDSP-S however As(III) was detected at all four stations.
- There is a positive correlation between total suspended solids (TSS) and total arsenic, between particulate arsenic (As-P) and particulate iron and aluminum (Fe-P + Al-P), and no correlation between TSS and dissolved arsenic at upstream station W1.
- The sewage system is sized and operated as per the requirements listed in the Type B Water licence QZ16-016 but water quality in sewage effluents is not monitored.

Recommendations:

- Monitor arsenic during freshet and high precipitation events to characterize and better understand arsenic variability on site.
- Consider monitoring As(III) and As(V) at stations prone to having high levels of As(III) and assess the correlation between As(III) and pH and redox potential as indicators of As(III) in the LDSP.
- Consider monitoring nutrients and metals in the sewage effluent.
- If the Eagle Gold Project expansion proceeds, add three additional water quality monitoring stations in the upper Dublin Creek watershed.

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Background

- The Eagle Gold mine project, owned by StrataGold Corporation (a subsidiary of Victoria Gold Corp.), is located 85 km from Mayo. It is an open-pit mine that employs cyanide heap leaching techniques to extract gold (see Figure 2). Construction was completed in early July of 2019, and the first gold bar was poured on September 17, 2019.
- A new water use licence (QZ14-041-1) was issued on August 23, 2019, after the modification of the design of the project.
- During the review of the Environmental Monitoring, Surveillance and Adaptive management Plan (EMSAMP), WRB noted that the AMP thresholds for arsenic are likely to be exceeded during the recurring, natural, high TSS events because site-specific Water Quality Objectives (SSWQO) for arsenic were derived by excluding high TSS/high arsenic events during the licensing process. The EMSAMP (v.2020-01) indicates that the adaptive management thresholds for arsenic are being further investigated.
- According to the April 2019 Monthly Report and the Spill Report 19-042, two unauthorized discharge events occurred from the LDSP to surface water in April 2019 resulting in EQS exceedances of TSS and total arsenic.
- The mining camp hosts a large number of people and it produces volume of sewage effluent comparable to Yukon communities however the monitoring requirements are different for the mining camp sewage system compared to a municipal sewage system.

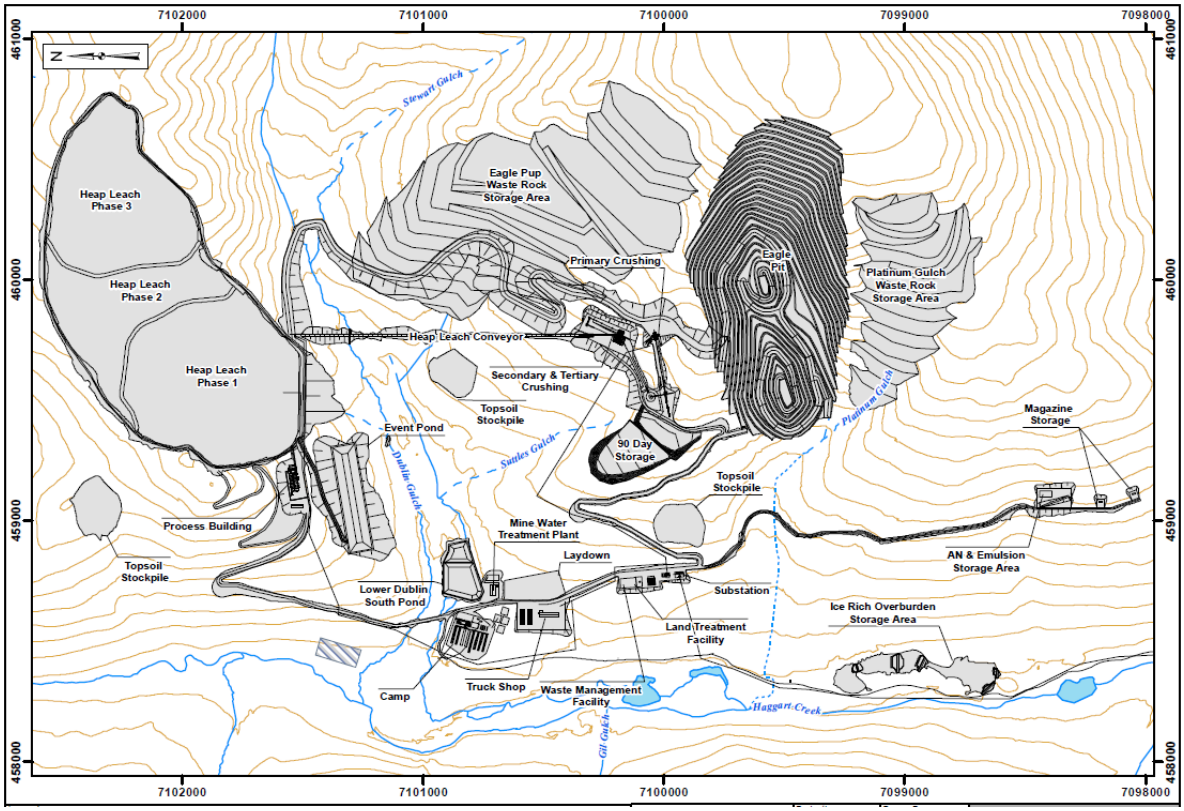

Figure 2: General site arrangement of the Eagle Gold mine.

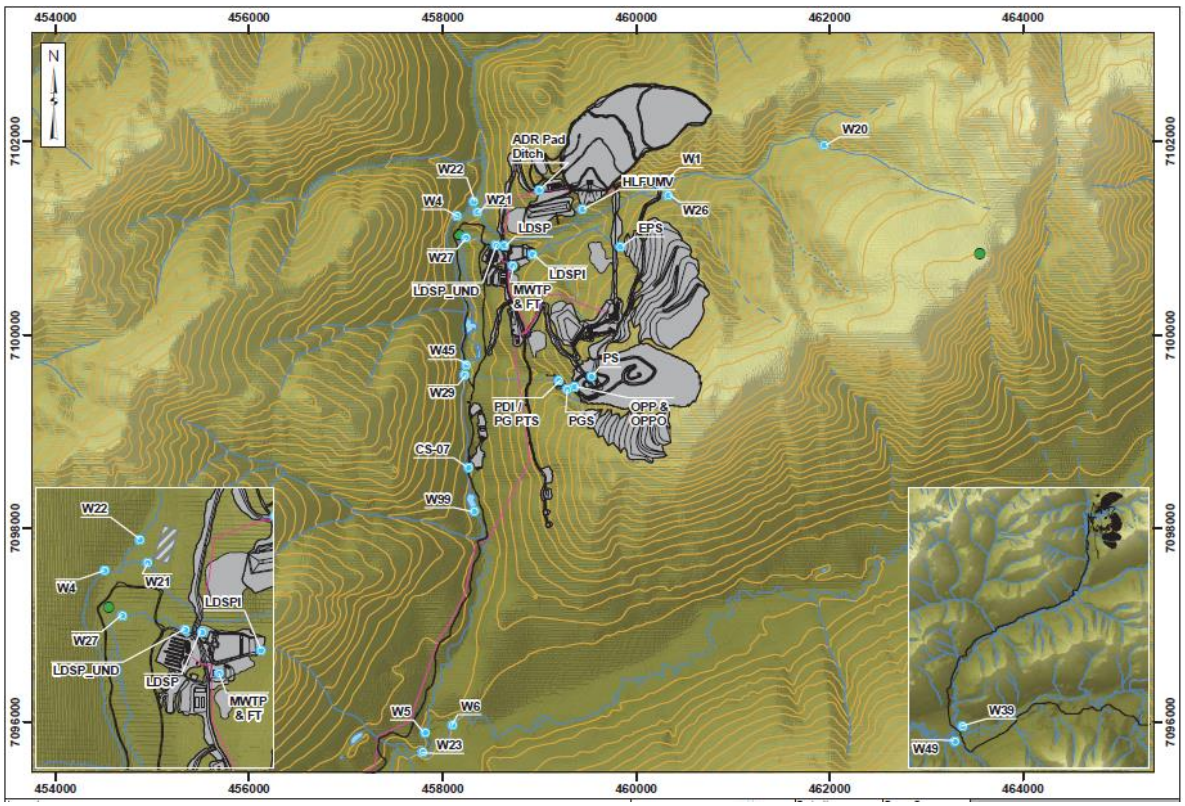

Figure 3: Surface water quality monitoring stations at the Eagle Gold Project (EMSAMP (v.2020-01)).

Objective 1: Compare water quality samples to Effluent Quality Standards and Water Quality Objectives

At the time of the audit, there was no effluent discharged from the LDSP or from the Underdrain Monitoring Vault (HLF-UMV) to the receiving environment therefore, the results are presented for comparison only and not for compliance purposes (Table 1). The EQS presented in the table are listed in Clause 108 and 109 of water licence QZ14-041-1 and apply to stations LDSP-S and HLF-UMV. The water collected at HLF-UMV is strictly groundwater flowing upward, underneath the heap leach pad and reaching surface at HLF-UMV. Water collected there was directed to the event pond at the time of the visit. No parameters measured at HLF-UMV exceeded the EQS, however the total arsenic exceeded EQS in the LDSP in the samples collected on September 10th, 2019.

Table 1: Summary of data from stations LDSP-S and HLF-UMV during the September 10, 2019 audit compared to EQS listed water licence QZ14-041-1.

Species	Parameter	EQS (mg/L)	Lab Result LDSP-S (mg/L)	Lab Result HLF-UMV (mg/L)
Dissolved	Sulphate	1850	103	64.3
Dissolved	Chloride	250	3.14	0.12
Dissolved	Nitrate-N	19.5	<0.01	0.0162
Dissolved	Nitrite-N	0.12	<0.005	<0.005
Total	Ammonia	7.5	0.042	0.032
Total	Suspended Solids	15	<2.0	<2.0
Dissolved	WAD Cyanide	0.03	<0.002	<0.002
Total	Cyanide	1.0	<0.002	<0.002
Dissolved	Aluminum	0.4	0.0104	0.0064
Total	Antimony	0.13	0.00403	0.00243
Total	Arsenic	0.053	0.0618	0.0158
Total	Cadmium	0.00125	0.000017	0.000048
Total	Copper	0.026	0.00175	<0.0004
Total	Cobalt	0.026	<0.0001	0.00117
Total	Iron	6.4	0.05	0.1
Total	Lead	0.05	0.00024	<0.0002
Total	Mercury	0.00008	<0.00001	<0.00001
Total	Manganese	7.7	0.0285	0.166
Total	Molybdenum	0.45	0.00124	<0.0001
Total	Nickel	0.5	0.00103	0.0109
Total	Selenium	0.025	<0.0005	<0.0005
Total	Silver	0.01	<0.00005	<0.00005
Total	Uranium	0.09	0.0064	0.000072
Total	Zinc	0.23	<0.004	0.0181

Adaptive management indicators, thresholds, and responses were developed for receiving environment stations to protect against potential impairment of Haggart Creek to sustain aquatic life (EMSAMP v.2020-01). Stations W4 and W99 were sampled and compared with the first threshold, which is 75% of the WQO (Schedule 3 of the water licence). At the time of the audit, there were no AMP threshold exceedances (Table 3) and therefore, no exceedances of the WQOs.

Table 2: Summary of data from stations W4 and W99 during the Sep 10th 2019 audit compared to AMP Threshold 1 (EMSAMP v. 2019-01).

Species	Parameter	AMP Threshold 1 (75% of WQO) (mg/L)	Lab Result W4 (mg/L)	Lab Result W99 (mg/L)
Dissolved	Sulphate	231.8	79.2	89.2
Dissolved	Chloride	112.5	0.16	0.39
Dissolved	Nitrate-N	2.3	0.0579	0.0604
Dissolved	Nitrite-N	0.015	<0.0050	<0.0050
Total	Ammonia	0.848	0.051	0.059
Dissolved	WAD Cyanide	0.0038	<0.0020	<0.0020
Dissolved	Aluminum	0.075	<0.0050	<0.0050
Total	Antimony	0.015	0.00036	0.0006
Total	Arsenic	0.00638	0.00228	0.00278
Total	Cadmium	0.000148	0.000011	0.000017
Total	Copper	0.00375	<0.00040	0.002
Total	Cobalt	0.003	0.00014	<0.00010
Total	Iron	0.75	0.063	0.041
Total	Lead	0.00578	<0.00020	<0.00020
Total	Mercury	0.000015	<0.000010	<0.000010
Total	Manganese	0.878	0.0264	0.071
Total	Molybdenum	0.0548	0.00016	0.00021
Total	Nickel	0.087	0.00113	0.00107
Total	Selenium	0.0015	<0.00050	<0.00050
Total	Silver	0.00113	<0.000050	<0.000050
Total	Uranium	0.0113	0.00132	0.00177
Total	Zinc	0.0285	<0.0040	<0.0040

Objective 2: Assess variability of arsenic concentrations and better understand arsenic speciation

The Eagle Gold mine property has naturally elevated concentrations of arsenic that routinely exceed the Canadian Council of Ministers of the Environment's (CCME) water quality guidelines for the protection of aquatic life (WQG). One of the primary sources of arsenic is Dublin Gulch at the headwaters in Bawn Boy Gulch (Lorax 2017). Arsenic is closely monitored in the Haggart Creek watershed by the Licensee and Effluent Quality Standards were established for the Water Licence to limit the release of arsenic to the receiving environment from the discharge of mine-affected waters. The goal of this objective is to better understand the potential toxicity of arsenic and to characterize its speciation upstream and downstream of the site at the time of the visit. Water quality samples from stations LDSP-S, W1, W4, and W99 were analyzed for various arsenic species.

Arsenic Speciation

In aquatic environments, there are generally four arsenic species that are present (Kumari et al. 2017). They are:

- Arsenate, As(V)
- Arsenite, As(III)
- Monomethylarsonic acid (MMAs)
- Dimethylarsinic acid (DMAs)

In freshwater, As(III) and As(V) are generally the dominant arsenic species while MMAs and DMAs exist in minor quantities (Kumari et al. 2017). Arsenic species have different modes of toxicity and therefore the degree of arsenic toxicity differs considerably between species. The literature reports that As(III) is about 60 times more toxic than As(V) (Ventura-Lima et al. 2011). MMAs and DMAs are generally viewed as having a lower toxicity than either As(III) and As(V) (Kumari et al. 2017).

The CCME guideline for arsenic for the Protection of Aquatic Life is expressed in terms of Total arsenic and does not distinguish between As(III) and As(V). However, the arsenic guideline was derived using the 14-day EC50 (growth) from the toxicity study presented by Vocke et al. (1980). Vocke et al.'s publication specifically states that the EC50 value applies to As(V). Hence, it can be safely assumed that the CCME guideline for total arsenic actually applies to As(V) and not to As(III).

Since the toxicity of As(III) is higher than the toxicity of As(V), the CCME guideline is conservative for water in which the conditions favor As(V) but is not conservative for water containing As(III) species. However, it should be noted that the arsenic guideline was published in 1997 using the 1991 CCME methodology for deriving guidelines. Since then, a newer approach was presented by CCME in 2007 and it could be argued that the older method led to a guideline that is too conservative and if the newer method was applied, the guideline would most likely be higher. Nonetheless, due to the toxicity difference and transformability between As(III) and As(V), the distinction between the species is important and should be considered when assessing the potential impacts on the receiving environment.

The water quality results indicate that the less toxic species As(V) is the dominant arsenic species in surface water samples taken from LDSP-S, W4, and W1 (Table 1). These results align with the concept that As(V) is generally the dominant arsenic species in oxidizing water (e.g. surface water).

Table 3: Laboratory results for arsenic species from September 9 and 10, 2019.

Station Name	Total As (µg/L)	Dissolved As (µg/L)	Inorganic As (µg/L)	As(III) (µg/L)	As(V) (µg/L)	Dimethyl-arsinic acid (DMAs) (µg/L)	Monomethyl arsonic acid (MMAs) (µg/L)
Detection limits	**0.0005**	**0.0005**	**0.043**	**0.043**	**0.043**	**0.054**	**0.097**
LDSP-S	61.8	56.2	58.300	1.360	57.000	0.205	< 0.097
W-4	2.02	1.96	1.950	0.582	1.370	< 0.054	< 0.097
W-1	30.2	27.2	29.400	0.629	28.700	< 0.054	< 0.097
W-99	2.78	2.53	2.690	1.330	1.360	< 0.054	< 0.097
W-99 (duplicate)	2.78	2.53	2.655	1.292	1.363	< 0.054	< 0.097

Interestingly, the surface water sample taken from W99 has a total arsenic concentration of 2.78 µg/L and an exceptionally high percentage, 47.8%, of total arsenic present in the form of As(III) (1.330 and 1.292 µg of As(III)/L in the two replicates) (Table 1). As(III) is favoured in water exhibiting reducing conditions, such as groundwater. Since this sample was taken between two beaver ponds, it can be speculated that the high As(III) concentrations may be a result of the beaver-induced water diversion or groundwater contributions. Beaver dams can divert water to subsurface pathways that have suboxic conditions, which in turn can reduce metals ions, such as arsenic (Figure 4.). The subsurface return flows can have substantially higher reduced metal concentrations and can contribute reduced metals, such as As(III), back to the main channel (Briggs et al. 2019). Alternatively beaver dams can increase the amount of dissolved organic matter in the pond, which supports the development of more reducing conditions. However, no conclusions can be drawn from the minimal arsenic speciation data presented here, which was obtained during one sampling event, but it would be interesting to further monitor As(III) and As(V) upstream and downstream of the beaver ponds.

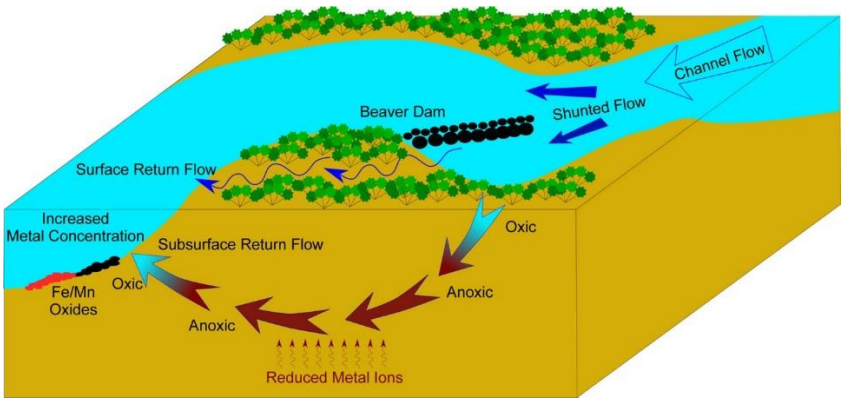

Figure 4: The interactions of surface and sub-surface water caused by beaver engineered channels (Briggs et al. 2019).

Concentrations of DMAs and MMAs fell below the detection limit except for DMA at LDSP-S (0.205 µg/L). These methylated forms of arsenic are known to occur in low concentrations in the environment and have a lower toxicity than As(V) and As(III) (Kumari et al. 2017).

The concentration of As(III) measured in the LDSP, at the shore of the pond, just under the surface of the water was 1.360 µg/L. At the time of sampling, the Dissolved Oxygen (DO) at this location was 10.16 mg/L, which is fairly high (i.e. oxygenated conditions), yet the reduced As(III) species was detected. This poses the question of whether As(III) could be present in higher concentration at a different times of year and if seasonal winter ice would affect As(III) content. Ice reduces the diffusion of oxygen through the water column and this results in a decrease in redox potential and the development of more reducing conditions, potentially favouring As(III). A study by Hollibaugh et al. (2005) describes the variation of As(III)/As(V) ratio in water bodies where there is seasonal stratification. The authors argue that stratification reduces the water column mixing, which enables reduced species, such as As(III) to accumulate in high concentrations below the thermocline (Figure 5), then seasonal turnover promotes the mixing of the water column, which may temporarily increase the surface concentrations of As(III). They observed that during seasonal turnover, the total arsenic may be constant, however, the composition of arsenic species may have dramatically shifted. Although the Lower Dublin South Pond (LDSP) is likely not deep enough to enable the formation of a thermocline, it would be interesting to monitor As(III) and As(V) in the LDSP at different times of year and at various depths, and to correlate DO or Oxidation-Reduction Potential (ORP) and As(III) concentrations in the LDSP. DO and/or ORP could be used to inform decision making related to the discharge of

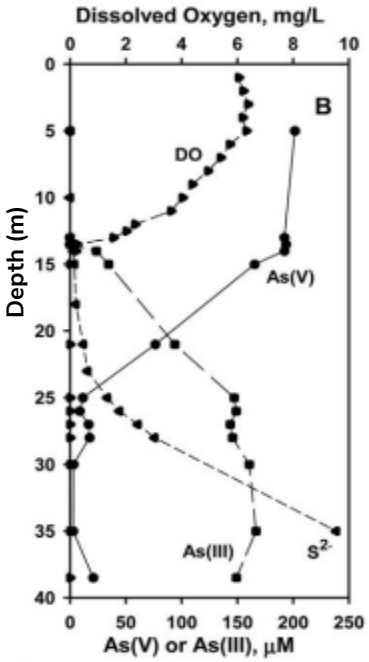

Figure 5: Example of As(III) and As(V) concentrations in a stratified waterbody (Hollibaugh et al. 2005).

effluent from the LDSP in an attempt to discharge water when As(III) is at its lowest concentration.

Finally, as previously stated, As(III) is the more toxic form of arsenic, has a higher mobility, and it can become the dominant arsenic species in reducing conditions (e.g. groundwater or stagnant water under ice). Therefore, water quality stations that may have reducing conditions, such as LDSP-UND, HLF-UMV and W99, or stations where the contribution of groundwater to surface water is high, may benefit from further arsenic speciation analysis. It is acknowledged that arsenic speciation is expensive and the wait time for lab results is lengthy. As discussed by Roussel et al. (2000), the solubility, mobility, and speciation of arsenic occurs as a function of redox potential and pH conditions. Therefore, using pH and redox potential as indicators of arsenic species may be a feasible option. Using Figure 6, the dominant arsenic species can be predicted (Akter et al. 2005). It is recognized that other factors influence arsenic speciation, however, using these indicators as a prediction tool would be a preliminary step that could shed light onto which water quality stations would benefit from arsenic speciation analysis in the future.

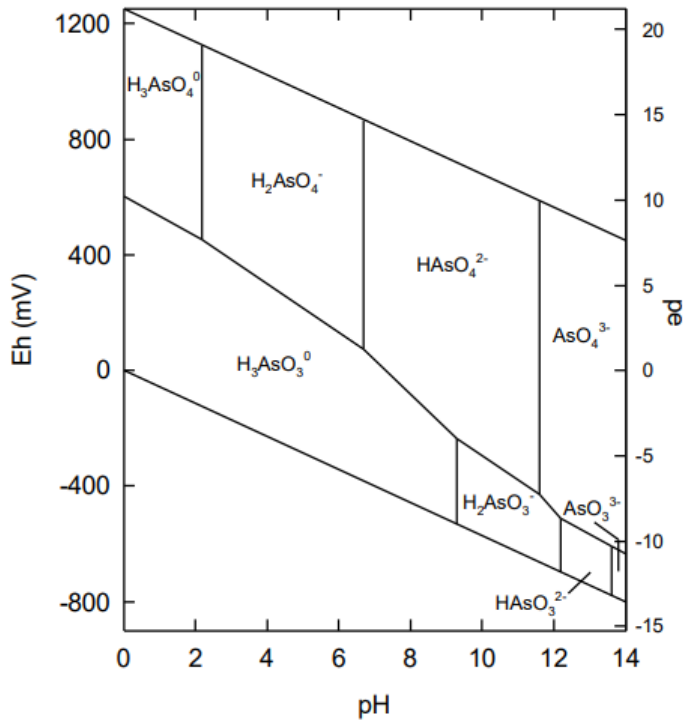

Figure 6: Redox potential (Eh) and pH diagram for arsenic species in freshwater at 25°C and 1 bar of total pressure (Smedley & Kinniburgh 2001).

Total and Dissolved Arsenic Variability

To investigate the temporal and spatial variability of arsenic, the baseline and post-baseline total arsenic (As-T) concentrations from four key water quality stations were compared (Figure 7). Baseline and post-baseline data were compared using an independent one-tail t-test with unequal variance (results in Appendix F). Please note that there are about two or three times more data pre-baseline than post-baseline. In this context, baseline concentrations refers to data prior to the commencement of construction, while post-baseline data refers to data collected after the start of construction. The post-baseline data is inclusive of any samples taken during operations. These datasets include all the available data from the WRB database at the time of this report, which is data submitted by the Licencee to Waterline as well as data collected by Government of Yukon inspectors.

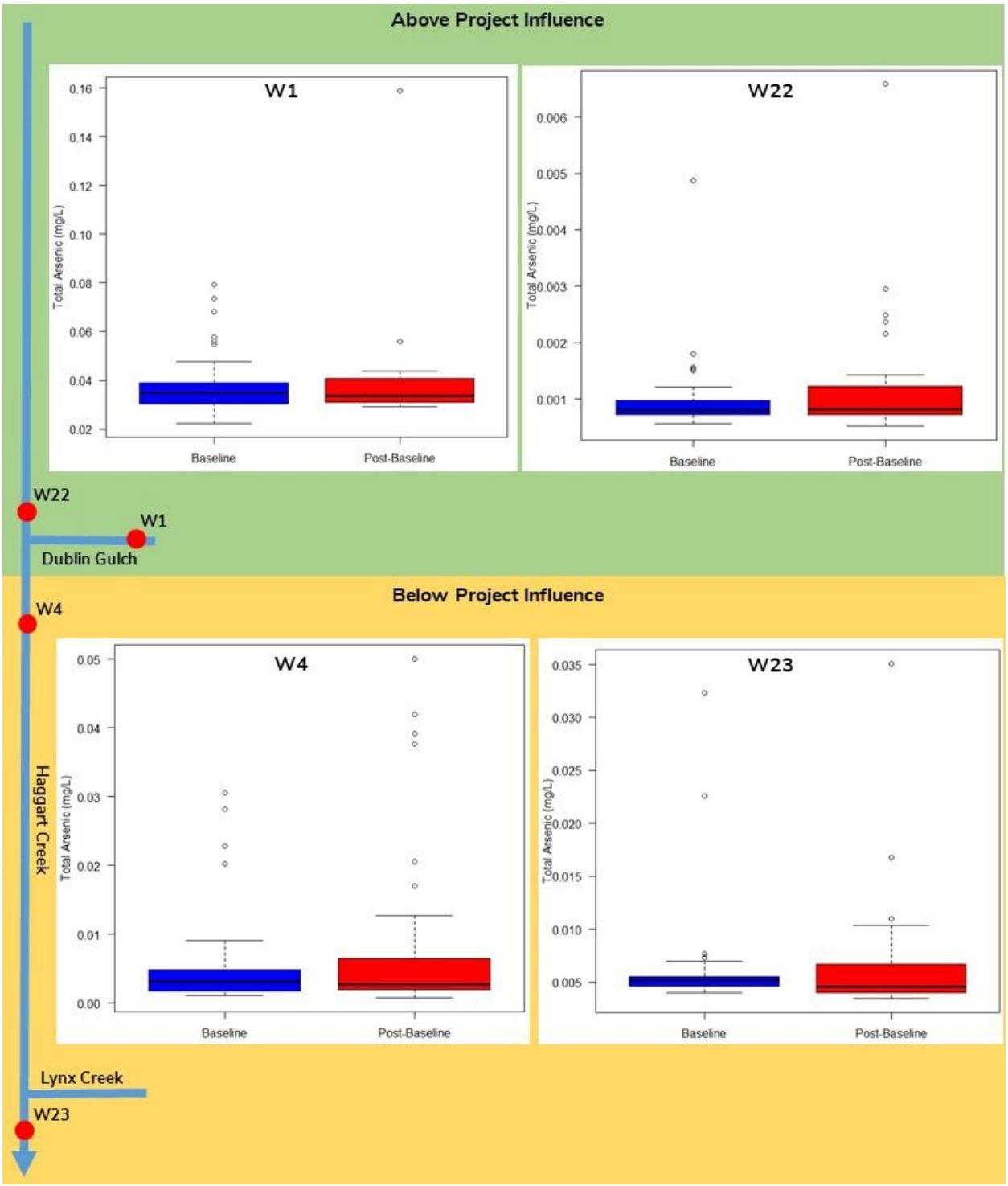

Figure 7: Boxplots of baseline and post-baseline As-T concentrations at four stations (W1, W22, W4, & W23). In this context, baseline concentrations refer to As-T concentrations before the Phase 1 construction start date (August 18, 2017), while post-baseline refers to any As-T data following the construction start date. Sample sizes for baseline and post-baseline are respectively 92 and 34 for W1, 60 and 30 for W22, 79 and 33 for W4 and 42 and 28 for W23. On the left is a schematic of the station locations for reference. **Note: y-axis scales vary between stations**.

As illustrated in Figure 7, W1 and W22 are located above the influence of the project, while W4 and W23 are located below the project influence. The above project stations (W1 and W22) were not significantly different between baseline and post-baseline As-T concentrations (p-value>0.05). At the downstream stations, W23 did not show a significant difference between baseline and post-baseline As-T concentrations (p-value>0.05), whereas station W4 showed a significant difference (p-value=0.03).

In the post-baseline boxplot from station W4, there is a grouping of As-T concentrations that are all >0.03mg/L. These samples were collected during the spring of 2018 and 2019. A similar spike in concentrations was also observed at W1 in 2019. These elevated concentrations may be due to natural spring freshet conditions and possibly also a result of the release of effluent from the LDSP in April 2019. It should be noted that comparing baseline and post-baseline data in this manner does not consider the sampling frequency around naturally high periods of As-T (i.e. freshet). If the sampling frequency around naturally high periods of As-T is not equally weighted between time periods, it could lead to misinterpretation of As-T data. Generally, it is recommended to conduct 5 sampling events in 30 days to understand the natural variability of arsenic during spring freshet.

The baseline dissolved arsenic (As-D) at the four stations (W1, W4, W22, W23) were compared to their post-baseline concentrations (results not shown). None of the stations showed a significant difference in dissolved concentrations (p-value>0.05). In other words, the construction and operation of the mine did not seem to affect dissolved arsenic downstream in Haggart Creek at W4 and W23.

Objective 3: Assess the relationship between TSS and arsenic

In the Baseline Water Quality Report (Lorax 2017), it was identified that there was a significant relationship between TSS and As-T. The baseline report illustrated that during periods of higher flow, elevated levels of TSS and As-T occurred, while As-D remained constant. Therefore, the objective was to further document the relationship between arsenic and periods of high TSS to support future reviews.

More specifically, WRB looked at the relationship between TSS and As-T at station W1 in Dublin Gulch, upstream of the mine. W1 was selected because of the large historical data set and represents the naturally elevated arsenic conditions on site. There appears to be a positive correlation between TSS and As-T (Figure 8a), while no significant relationship was identified between As-D and TSS (Figure 8b). This confirms the findings presented in the 2017 water quality baseline report (Lorax 2017).

The relationship between TSS and As-T may be further explained at W1 by arsenic-adsorbing compounds that act as an arsenic sink during periods of low flow and transport arsenic during

periods of high flow. It is documented that iron and aluminum oxides - which are insoluble in water and therefore would be reported as TSS - are strong adsorbents of arsenic (Roussel et al., 2000; Smedley & Kinniburgh 2001). Within the Haggart Creek watershed, metal oxides in sediment may be binding and concentrating arsenic on their surface. During low flows, arsenic-bearing oxide complexes may be settling and accumulating in the sediments. While during high flows, these complexes may be suspended and transported in the flow.

Particulate iron, aluminum and arsenic (Fe-P, Al-P and As-P respectively) were calculated as the difference between the total and the dissolved concentrations. Particulate species were used instead of the total species concentrations to remove the variability of the dissolved species from comparison. Figure 8c presents the correlation between As-P and the sum of Fe-P and Al-P. Figure 8c illustrates that there may be a relationship between particulate arsenic and the sum of particulate Fe and Al (r^2 value: 0.95, p-value: 5.82E-67, n=103). Particulate iron and aluminum are assumed to be present mostly as oxides and Fe and Al oxides are known to be preferable adsorbents for arsenic (Youngran et al. 2007) although other metal oxides can also act as arsenic adsorbents (Smedley & Kinniburgh 2001).

These results suggest that there may be a relationship between arsenic and oxide adsorbents, however, this correlation should be confirmed with additional data and interpretation. This potential explanation regarding the relationship between arsenic and adsorbents could be considered as an avenue of future water quality investigations at the Eagle Gold Project.

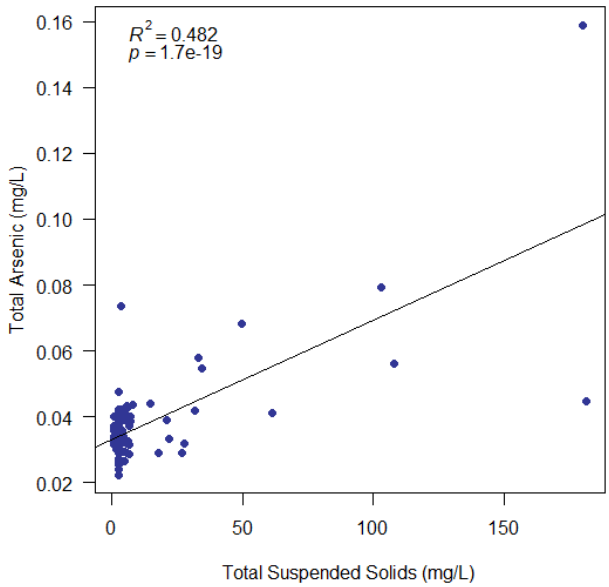

Figure 8a: *The comparison of TSS (mg/L) to total arsenic (mg/L) from all the available historical data from station W1.*

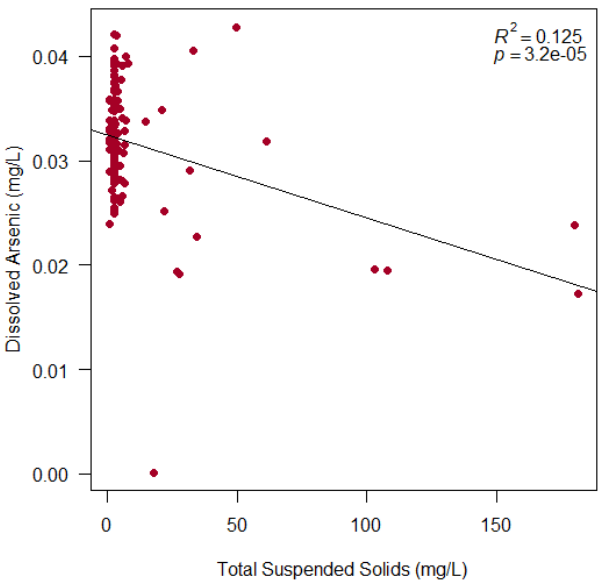

Figure 8b: *The comparison of TSS (mg/L) and dissolved arsenic (mg/L) from all the available historical data from station W1.*

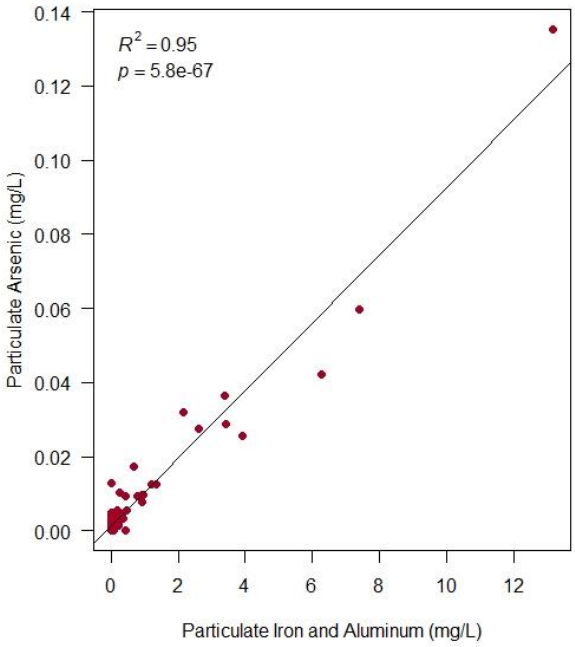

Figure 8c: *The comparison of particulate arsenic to the sum of particulate iron and aluminum from all the available historical data from station W1. Particulate arsenic was calculated by the following equation: (As-T)-(As-D). The sum of particulate iron and aluminum was calculated by the following equation: ((Fe-T)-(Fe-D))+((Al-T)-(Al-D)).*

Objective 4: Document and sample the camp sewage

During mine construction, it was WRB's understanding that the camp was operating at full capacity on a regular basis. One of the objectives was to understand the sewage system and the potential for impacts on the receiving environment in consideration of having a full camp of personnel.

StrataGold Corp. holds Type B water licence (QZ16-016) which authorizes the operation of a pre-existing membrane bio-reactor wastewater treatment system, septic tank and absorption field and an additional septic tank and expanded absorption field for discharge of sewage waste to ground. The current sewage disposal system consists of four absorption fields; three of which were installed during the 2017-2018 expansion. Each of the expansion fields consists of a 5000 gallon trickle tank and a syphon tank, while the existing absorption field consists of a 5000 gallon trickle tank and a pump-up tank. All four absorption fields share a 2000 gal distribution tank (Figure 9).

During the peak construction phase, the camp had 450 people, which is equivalent to 85,500L of sewage flow per day. According to the 2017-18 On-Site Sewage System Construction Report (Tetra Tech 2018), the four absorption beds can support 151 bedrooms, which is equivalent to 453 people. Therefore, the septic system can accommodate a full camp. Although

the size of the sewage system and the volume of effluent treated is fairly significant (just under the threshold for the federal wastewater regulation to apply), there is no requirement in their Type B water licence to monitor water quality in and out of the septic system. This is supported by the Yukon Water Board's QZ16-016 Reasons for Decision which stated that "The deposit of waste is also to ground through a septic system and will not substantially alter the quality of water".

During the audit, WRB collected a sample from the influent into the septic field (SEP; Figure 1). Routine parameters, nutrients and metals were analyzed. The sample had high unionized ammonia (1.08mg/L) and ammonium (68.5mg/L) concentrations however it is recognized that untreated wastewater can have high levels of nitrogen and septic infiltration fields are efficient at attenuating ammonia through chemical and microbial mechanisms occurring in the soil.

Metal contaminants should not be present in camp sewage in high concentrations and there are no requirements in the Water Licence to sample sewage effluents at the Eagle Gold mine. However, monitoring for nutrients and contaminants in sewage effluent systems, whether they are located on a mine site or in a community, is considered good practice. It is recommended to monitor the effluent flowing in the absorption fields to maintain a record of the amount of nutrients or contaminants being discharged from the sewage system.

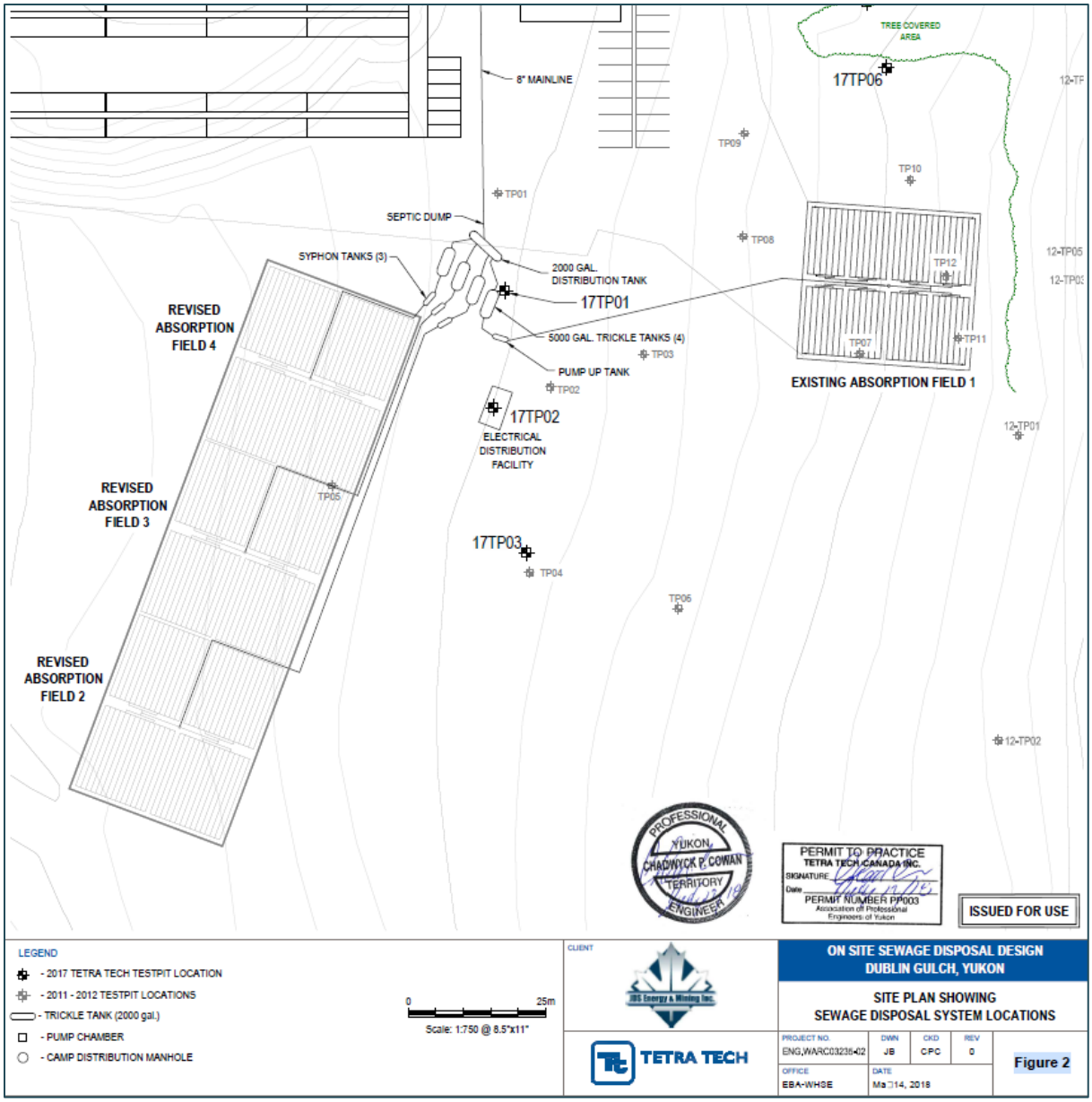

Figure 9: Overview of the Eagle Gold sewage disposal system (Tetra Tech 2018).

Conclusions and recommendations

A few key points have been raised within this report and include:

- Water quality stations that are below the project influence have not shown a statistically significant difference in total and dissolved arsenic concentrations since the start of Phase 1 Construction (August 18, 2017)
- Arsenate (As(V)) is the dominant arsenic species in surface water samples taken during the audit (W1, W4, W99 and LDSP-S) however As(III) was detected in all 4 samples. Since As(III) is much more toxic than As(V) and because the ratio of As(III) to As(V) evolves with the water conditions, regular monitoring of arsenic species would provide meaningful data to capture spatial, seasonal, and temporal variability. Furthermore, parameters such as pH and ORP may be used to gain insight in arsenic speciation. This should be further investigated.
- There is a positive correlation between TSS and total arsenic and between particulate arsenic and the sum of particulate iron and aluminum at upstream station, W1. This is most likely due to the adsorption of arsenic on the surface of iron or aluminum oxide particulates.
- Adaptive Management Plan (AMP) thresholds and Water Quality Objectives (WQOs) were compared to applicable stations (W4 and W99) and there were no threshold exceedances at the time of the audit at the stations monitored.
- Although water licence QZ16-016 does not require monitoring of the sewage effluent, there would be value in monitoring the quality of the effluent being released in the sewage adsorption field.

Furthermore, the following recommendations are made to the Licensee:

Recommendation #1: Monitor arsenic during freshet and high precipitation events.
Rationale: During freshet and high precipitation events, a major portion of As-T is transported through the watershed and likely results in large variations in arsenic concentrations. However, it not possible to know the extent of the variability without data to document. TSS concentrations in upper Haggart Creek exhibit freshet maxima, generally coinciding with the peak snowmelt month of May (Lorax 2017) but arsenic data is limited for these events. To best understand variability during freshet and adapt WQO or AMP thresholds for arsenic accordingly, it is recommended that the licensee conduct 5 sampling events in 30 days.

Recommendation #2: **Consider monitoring As(III) and As(V) at stations prone to having high levels of As(III) and assess the correlation between As(III) and pH and redox potential as indicators of As(III) in the LDSP.**
Rationale: Arsenic is one of the contaminants of concern and the most scrutinized on site as it is present at elevated concentrations. The species of arsenic present on site dictates the toxicity to aquatic life however there is little data available on arsenic speciation around the site. A number of parameters can influence arsenic speciation, however, pH and ORP largely affect the

speciation and could potentially be used as indicators to predict arsenic speciation. This would help the Licensee to identify stations where As(III) is likely or unlikely to be present and to gain a better understanding of potential toxicity from arsenic.

Recommendation #3: Consider monitoring nutrients and metals in the sewage effluent
Rationale: The disposal of sewage effluent to ground is a potential source of contaminants to the receiving environment and although the licensed system does not trigger the federal Wastewater Effluent Regulation, its size is comparable to sewage effluent systems in Yukon communities and it could release contaminants. Sewage effluent systems should be sampled for nutrients and metals to understand its potential impact to receiving water bodies.

Recommendation #4: If the Eagle Gold Project expansion proceeds, add three additional water quality monitoring stations in the upper Dublin Creek watershed.
Rationale: The Licencee is currently working on a proposal to expand the mine (Figure 10). Currently, there is only one station upstream of W1 (Figure 11**)**, which signifies the lack of water quality data in the upper Dublin Creek watershed. It is important to developing baseline water quality data above and below the proposed Olive Gulch Pond and Waste Rock storage area prior to expansion. It is additionally important to establish a station on Dublin Gulch above future influence from the expansion. It is recommended to add one station upstream of Olive Gulch, one station below Olive Gulch and one station in upper Dublin Gulch.

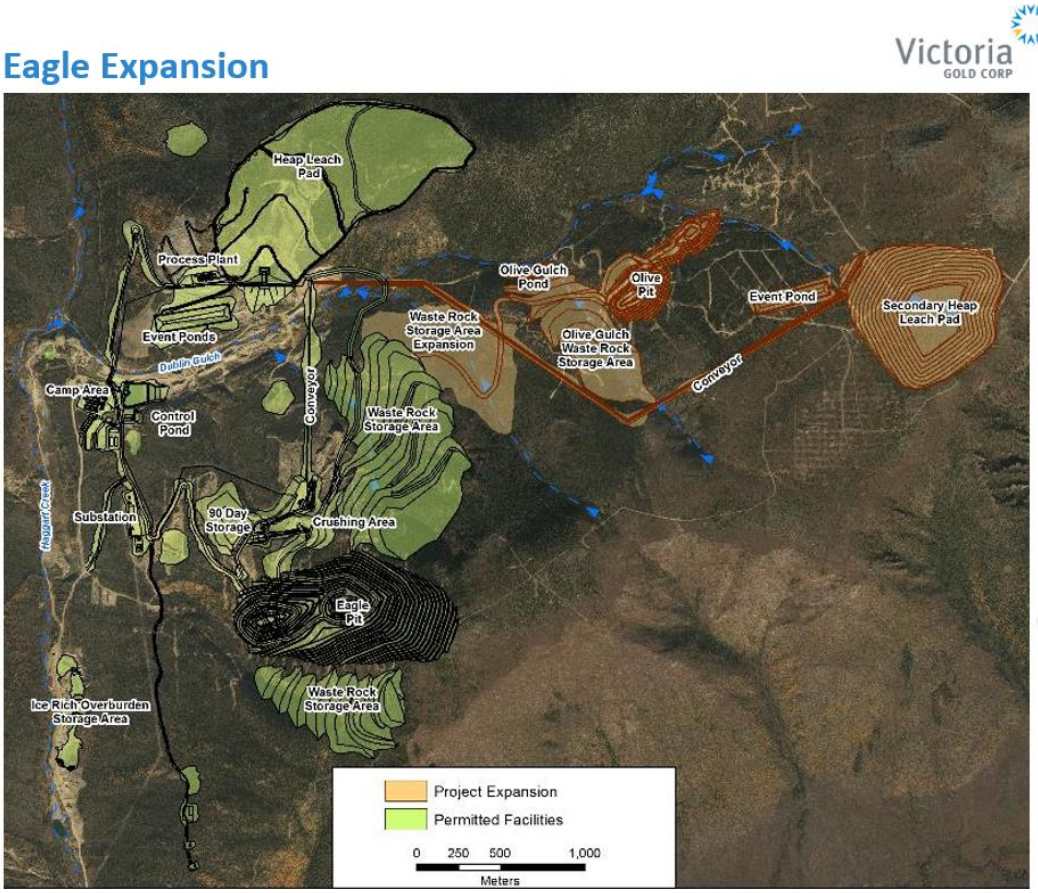

Figure 10. *The proposed Eagle Gold expansion is highlighted in orange (Victoria Gold Presentation to Government of Yukon on 11/12/2019).*

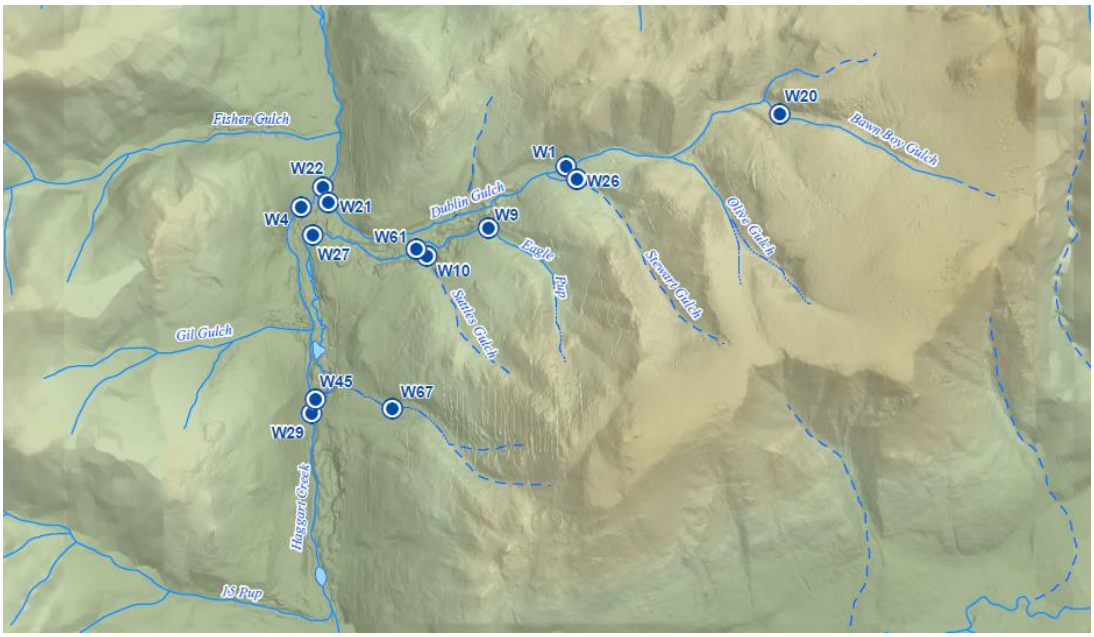

Figure 11. *Surface Water Quality Monitoring Stations from the Eagle Gold Project (Baseline Water Quality Report (Lorax 2017).*

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Appendix A: Site Conditions

The site was accessed by vehicle from Mayo. WRB travelled around site in a StrataGold vehicle (pick up with flag whip). Road conditions around the site were good. A large forest fire in the area was causing poor visibility. The mine was operating, with ore being extracted, crushed and placed on the heap pad for leaching. It was expected for the first gold bar to be poured in about a weeks time.

Appendix B: Field Notes

Station Code	Station Description	Field Notes
W1	Dublin above Stewart Gulch	Fire nearby. Substrate is orange-red.
W4	Haggart Ck below Dublin Gulch	Halfway through sampling, TSS peaked because of driving through creek. Waited 10 min to fill routine bottle.
W6	Lynx Ck above Haggart Ck	Water is slow, presumed to be from beaver dam.
W22	Haggart Ck above Dublin Gulch	-
W24	Haggart Creek above Fisher Gulch; 150m u/s from parking.	D/S of phase 2/3 HLF
W25	Haggart Creek 20m u/s of Eagle Creek	-
W99	Haggart Ck above 15 pup	Sampled between two beaver dams, downstream of pond.
HLF-UMV	Heap Leach Facility Underdrain Monitoring Vault, water can go to ground or events ponds.	Water is groundwater from under the heap pad.
LDSP-S	Lower Dublin South Pond from shore	Water is from groundwater seeps and some runoff.
SEP	Camp Wastewater from septic inflow; tube 36 below syphon tanks before distribution into septic field.	Noticeable sewage smell.

Appendix C: Field and Lab Data

Table 1: *Field data taken by WRB.*

Station Name	Temp (° C)	DO (mg/L)	SPC (µS/cm)	pH	Turbidity (NTU)	Date (yymmdd)	Time (24 h)
W1	4	11.53	133.7	7.17	0.04	190910	16:58
W4	5.9	10.64	359	7.36	0.88	190910	16:22
W6	2.6	12.17	372.4	7.57	0	190911	11:26
W22	5.8	10.74	358.9	7.51	0.07	190910	15:00
W24	6.1	11.13	346.5	7.47	0.29	190910	15:38
W25	1.9	12.56	387.1	7.44	0.36	190911	10:01
W99	3.9	11.61	402	7.55	0.16	190911	10:38
HLF-UMV	8.6	9.84	249.1	7.2	0.25	190910	14:05
LDSP-S	11.1	10.16	526	7.96	1.6	190910	14:41
SEP	15.4	0.74	1247	6.68	109	190910	13:31

Appendix D: Photo Log

Heap leach pad with cyanide dripping from perforated tubing on left and conveyor depositing ore on right

Station "SEP": The influent of sewage into absorption field and Station LDSP-S: Sample collected from the shore of the Lower Dublin Storage Pond.


Stations HLF-UMV: Sample obtained from tap and W-22.



Stations W-24; W-4; W-1

Appendix E: Quality Assurance and Control

Quality control of available field data compared to laboratory data.

Station	Date	Cond-F	Cond-L	RPD (%)*	pH-F	pH-L	RPD (%)*
W1	9/10/2019 16:58	133.7	129	3.58	7.17	7.7	7.13
W4	9/10/2019 16:22	359	349	2.82	7.36	7.96	7.83
W6	9/11/2019 11:26	372.4	360	3.39	7.57	8.01	5.65
W22	9/10/2019 15:00	358.9	355	1.09	7.51	7.93	5.44
W24	9/10/2019 15:38	346.5	338	2.48	7.47	8.01	6.98
W25	9/11/2019 10:01	387.1	375	3.18	7.44	8	7.25
W99	9/11/2019 10:38	402	390	3.03	7.55	8.02	6.04
HLF-UMV	9/10/2019 14:05	249.1	226	9.72	7.2	6.92	3.97
LDSP-S	9/10/2019 14:41	526	517	1.73	7.96	8.26	3.70
SEP	9/10/2019 13:31	1247	1240	0.56	6.68	7.48	11.30

Comparison between WR field replicates. Exceedances are highlighted in orange.

Parameter	W99 9/11/2019 10:38 Sample	W99 9/11/2019 10:46 Replicate	RPD (%)*
Silver, dissolved (mg/L)	< 0.000050	< 0.000050	0
Silver, total (mg/L)	< 0.000050	< 0.000050	0
Aluminum, dissolved (mg/L)	< 0.0050	< 0.0050	0
Alkalinity, Bicarbonate HCO3 (mgCaCO3/L)	114	120	5.13
Alkalinity, Carbonate CO3 (mgCaCO3/L)	< 1.0	< 1.0	0
Alkalinity, Hydroxide OH (mgCaCO3/L)	< 1.0	< 1.0	0
Alkalinity, Phenolphthalein. (mgCaCO3/L)	< 1.0	< 1.0	0
Alkalinity, Total (mgCaCO3/L)	114	120	5.13
Aluminum, total (mg/L)	0.0076	0.0066	14
Arsenic, dissolved (mg/L)	0.00253	0.00253	0
Arsenic, total (mg/L)	0.00278	0.00269	3.29
Barium, dissolved (mg/L)	0.0474	0.0488	2.91
Barium, total (mg/L)	0.0496	0.0459	7.75
Boron, dissolved (mg/L)	< 0.0050	< 0.0050	0
Beryllium, dissolved (mg/L)	< 0.00010	< 0.00010	0
Beryllium, total (mg/L)	< 0.00010	< 0.00010	0
Bismuth, dissolved (mg/L)	< 0.00010	< 0.00010	0
Bismuth, total (mg/L)	< 0.00010	< 0.00010	0
Boron, total (mg/L)	< 0.0050	< 0.0050	0
Calcium, dissolved (mg/L)	48.4	46.2	4.65
Calcium, total (mg/L)	50.2	45.3	10.3
Cadmium, dissolved (mg/L)	< 0.000010	0.000015	100
Cadmium, total (mg/L)	0.000017	0.000019	11

Chloride (mg/L)	0.39	0.39	0
Cyanide, Total (mg/L)	< 0.0020	< 0.0020	0
Cyanide, Weak Acid Dissociable. (mg/L)	< 0.0020	< 0.0020	0
Cobalt, dissolved (mg/L)	< 0.00010	< 0.00010	0
Specific Conductance - Lab (uS/cm)	390	390	0
Cobalt, total (mg/L)	< 0.00010	< 0.00010	0
Chromium, dissolved (mg/L)	< 0.00050	< 0.00050	0
Chromium, total (mg/L)	< 0.00050	< 0.00050	0
Copper, dissolved (mg/L)	< 0.00040	0.00068	110
Copper, total (mg/L)	0.002	< 0.00040	160
Iron, dissolved (mg/L)	0.017	0.021	21.1
Iron, extractable (mg/L)	0.041	0.034	19
Fluoride (mg/L)	0.1	0.1	0
Hardness calculated from dissolved metal scan (mgCaCO3/L)	199	194	2.54
Mercury, dissolved (mg/L)	< 0.000010	< 0.000010	0
Mercury, total (mg/L)	< 0.000010	< 0.000010	0
Potassium, dissolved (mg/L)	1.17	1.17	0
Potassium, total (mg/L)	1.28	1.2	6.45
Lithium, dissolved (mg/L)	0.00807	0.00775	4.05
Lithium, total (mg/L)	0.00848	0.00767	10
Magnesium, dissolved (mg/L)	19	19	0
Magnesium, total (mg/L)	20.6	19.1	7.56
Manganese, dissolved (mg/L)	0.0683	0.0688	0.729
Manganese, total (mg/L)	0.071	0.067	5.8
Molybdenum, dissolved (mg/L)	0.00026	0.00017	42
Molybdenum, total (mg/L)	0.00021	0.00016	27
Sodium, dissolved (mg/L)	2.22	2.2	0.905
Sodium, total (mg/L)	2.38	2.21	7.41
Nickel, dissolved (mg/L)	0.00099	0.00101	2
Nickel, total (mg/L)	0.00107	0.00098	8.78
Ammonia, un-ionized (NH3), as N @15C (mg/L)	0.003	0.002	40
Ammonium Nitrogen (NH3, NH4+), as N (mg/L)	0.059	0.049	19
Nitrite Nitrogen, as N (mg/L)	< 0.0050	< 0.0050	0
Nitrite and Nitrate Nitrogen, as N (mg/L)	0.0604	0.0606	0.331
Nitrate Nitrogen, as N (mg/L)	0.0604	0.0606	0.331
Lead, dissolved (mg/L)	< 0.00020	< 0.00020	0
Lead, total (mg/L)	< 0.00020	< 0.00020	0
Lead, total CCME guideline (mg/L)	< 0.050	< 0.050	0
pH, Laboratory (pH units)	8.02	8.02	0
Phosphorus, total (not colourmetric) (mg/L)	< 0.050	< 0.050	0
Antimony, dissolved (mg/L)	0.00057	0.00057	0

Antimony, total (mg/L)	0.0006	0.00056	6.9
Sulphur, Dissolved (mg/L)	30.5	30.6	0.327
Selenium, dissolved (mg/L)	< 0.00050	< 0.00050	0
Selenium, total (mg/L)	< 0.00050	< 0.00050	0
Silicon, dissolved (mg/L)	3.9	4	2.5
Silicon, total (mg/L)	4.3	3.9	9.8
Tin, dissolved (mg/L)	< 0.00020	< 0.00020	0
Tin, total (mg/L)	< 0.00020	< 0.00020	0
Sulphate, Dissolved (mg/L)	89.2	89.3	0.112
Strontium, dissolved (mg/L)	0.248	0.251	1.20
Strontium, total (mg/L)	0.265	0.245	7.84
Sulphur, Total (mg/L)	31.7	29.5	7.19
Total Dissolved Solids (lab) (mg/L)	230	232	0.866
Tellurium, dissolved (mg/L)	< 0.00050	< 0.00050	0
Tellurium, total (mg/L)	< 0.00050	< 0.00050	0
Thorium, dissolved (mg/L)	< 0.00010	< 0.00010	0
Thorium, total (mg/L)	< 0.00010	< 0.00010	0
Titanium, dissolved (mg/L)	< 0.0050	< 0.0050	0
Titanium, total (mg/L)	< 0.0050	< 0.0050	0
Thallium, dissolved (mg/L)	< 0.000020	< 0.000020	0
Thallium, total (mg/L)	< 0.000020	< 0.000020	0
Total Suspended Solids (mg/L)	< 2.0	< 2.0	0
Uranium, dissolved (mg/L)	0.00177	0.00177	0
Uranium, total (mg/L)	0.00177	0.00163	8.24
Vanadium, dissolved (mg/L)	< 0.0010	< 0.0010	0
Vanadium, total (mg/L)	< 0.0010	< 0.0010	0
Tungsten, dissolved (mg/L)	< 0.0010	< 0.0010	0
Tungsten, total (mg/L)	< 0.0010	< 0.0010	0
Zinc, dissolved (mg/L)	< 0.0040	< 0.0040	0
Zinc, total (mg/L)	< 0.0040	< 0.0040	0
Zirconium, dissolved (mg/L)	< 0.00010	< 0.00010	0
Zirconium, total (mg/L)	< 0.00010	< 0.00010	0

Comparison of samples independently collected by WRB and licensee at W1. WRB sampled collected at 16:58 on 9/10/2019. Licensee sample collected at 17:00 on 9/11/2019. Exceedances are highlighted in orange. *RPD % (Relative percent difference (x,y)) = [|x - y| ÷ |(x + y)/2|] * 100

		W1		
Parameter	**Unit**	**WRB**	**Eagle Gold**	**RPD(%)***
Ag-D	mg/L	<0.000050	<0.000010	-
Ag-T	mg/L	<0.000050	<0.000010	-
Al-D	mg/L	0.0139	0.0075	59.8
Alk-T	mgCaCO3/L	49.2	52.3	6.1
Al-T	mg/L	0.0567	0.0058	162.9
As-D	mg/L	0.0272	0.0327	18.4
As-T	mg/L	0.0302	0.0306	1.3

Ba-D	mg/L	0.0548	0.0517	5.8
Ba-T	mg/L	0.0559	0.0480	15.2
B-D	mg/L	<0.0050	<0.010	-
Be-D	mg/L	<0.00010	<0.000020	-
Be-T	mg/L	<0.00010	<0.000020	-
Bi-D	mg/L	<0.00010	<0.000050	-
Bi-T	mg/L	<0.00010	<0.000050	-
B-T	mg/L	<0.0050	<0.010	-
Ca-D	mg/L	16.5	17.3	4.73
Ca-T	mg/L	16.9	16.3	3.61
Cd-D	mg/L	<0.000010	0.0000083	49.6
Cd-T	mg/L	0.000011	0.0000061	57.3
Chloride	mg/L	<0.10	<0.50	-
Co-D	mg/L	<0.00010	<0.00010	0
Cond-L	uS/cm	129	134	3.80
Co-T	mg/L	<0.00010	<0.00010	-
Cr-D	mg/L	<0.00050	<0.00010	-
Cr-T	mg/L	0.00064	<0.00010	171.0
Cu-D	mg/L	<0.00040	0.00023	14.0
Cu-T	mg/L	0.00043	<0.00050	52.9
Fe-D	mg/L	<0.010	<0.010	0
Fe-T	mg/L	0.093	<0.010	179.6
Fluord	mg/L	<0.10	0.095	62.1
Hard-D	mgCaCO3/L	58.1	62.7	7.62
Hg-D	mg/L	<0.000010	<0.0000050	-
Hg-T	mg/L	<0.000010	<0.0000050	-
K-D	mg/L	0.79	0.93	16.3
K-T	mg/L	0.87	0.93	6.67
Li-D	mg/L	0.00258	0.0025	3.15
Li-T	mg/L	0.00275	0.0025	9.52
Mg-D	mg/L	4.13	4.73	13.5
Mg-T	mg/L	4.43	4.31	2.75
Mn-D	mg/L	0.00066	0.00111	50.8
Mn-T	mg/L	0.00473	0.00069	149
Mo-D	mg/L	0.00217	0.00218	0.460
Mo-T	mg/L	0.0022	0.00210	4.65
Na-D	mg/L	1.67	1.95	15.5
Na-T	mg/L	1.79	1.78	0.560
Ni-D	mg/L	<0.00040	<0.00050	-
Ni-T	mg/L	0.00067	<0.00050	91.3
N-NH4	mg/L	0.032	<0.0050	171.0
N-NO2	mg/L	<0.0050	<0.0010	-
N-NO3	mg/L	<0.0100	<0.0050	-
Pb-D	mg/L	<0.00020	<0.000050	-
Pb-T	mg/L	0.00026	<0.000050	164.9
P-D	mg/L	<0.050	<0.050	0
pH-L	pH units	7.7	7.93	2.94
P-T	mg/L	<0.050	<0.050	0
Sb-D	mg/L	0.00117	0.00113	3.48
Sb-T	mg/L	0.0012	0.00117	2.53
S-D	mg/L	5.3	5.86	10.0
Se-D	mg/L	<0.00050	0.000154	47.5

Se-T	mg/L	<0.00050	0.000106	80.9
Si-D	mg/L	6	6.32	5.19
Si-T	mg/L	6.3	5.88	6.90
Sn-D	mg/L	<0.00020	<0.00010	-
Sn-T	mg/L	<0.00020	<0.00010	-
Sr-D	mg/L	0.0937	0.0964	2.84
Sr-T	mg/L	0.0976	0.0955	2.18
S-T	mg/L	5.4	5.67	4.88
TDS	mg/L	70	88	22.8
Ti-D	mg/L	<0.0050	<0.00030	-
Ti-T	mg/L	<0.0050	<0.00030	-
Tl-D	mg/L	<0.000020	<0.000010	-
Tl-T	mg/L	<0.000020	<0.000010	-
TSS	mg/L	<2.0	<3.0	-
U-D	mg/L	0.000648	0.000592	9.03
U-T	mg/L	0.000674	0.000608	10.3
V-D	mg/L	<0.0010	<0.00050	-
V-T	mg/L	<0.0010	<0.00050	-
Zn-D	mg/L	<0.0040	<0.0010	-
Zn-T	mg/L	<0.0040	<0.0030	-
Zr-D	mg/L	<0.00010	<0.00030	-
Zr-T	mg/L	<0.00010	<0.00030	-

Comparison of samples independently collected by WRB and licensee at W4. WRB sampled collected at 16:22 on 9/10/2019. Licensee sample collected at 16:00 on 9/10/2019. Exceedances are highlighted in orange. *RPD % (Relative percent difference (x,y)) = [|x - y| ÷ |(x + y)/2|] * 100

		W4		
Parameter	**Unit**	**WRB**	**Licensee**	**RPD(%)***
Ag-D	mg/L	<0.000050	<0.000010	-
Ag-T	mg/L	<0.000050	<0.000010	-
Al-D	mg/L	<0.0050	0.0037	38.7
Alk-T	mgCaCO3/L	104	112	7.41
Al-T	mg/L	0.0165	0.011	40.00
As-D	mg/L	0.00184	0.00196	6.32
As-T	mg/L	0.00228	0.00202	12.09
Ba-D	mg/L	0.0438	0.0398	9.57
Ba-T	mg/L	0.0435	0.0376	14.55
B-D	mg/L	<0.0050	<0.010	-
Be-D	mg/L	<0.00010	<0.000020	-
Be-T	mg/L	<0.00010	<0.000020	-
Bi-D	mg/L	<0.00010	<0.000050	-
Bi-T	mg/L	<0.00010	<0.000050	-
B-T	mg/L	<0.0050	<0.010	-
Ca-D	mg/L	41.9	42.8	2.13
Ca-T	mg/L	42.1	40.5	3.87
Cd-D	mg/L	0.000014	0.000009	43.48
Cd-T	mg/L	0.000011	0.0000079	32.80
Chlord	mg/L	0.16	<0.50	43.9
CN-T	mg/L	<0.0020	<0.0050	-
CN-WAD	mg/L	<0.0020	<0.0050	-

Co-D	mg/L	<0.00010	<0.00010	0
Cond-L	uS/cm	349	354	1.42
Co-T	mg/L	0.00014	<0.00010	94.7
Cr-D	mg/L	<0.00050	<0.00010	-
Cr-T	mg/L	<0.00050	<0.00010	-
Cu-D	mg/L	<0.00040	0.00033	-
Cu-T	mg/L	<0.00040	<0.00050	-
Fe-D	mg/L	0.023	0.031	29.63
Fe-T	mg/L	0.063	0.055	13.56
Fluord	mg/L	<0.10	0.119	81.7
Hard-D	mgCaCO3/L	173	186	7.24
Hg-D	mg/L	<0.000010	<0.0000050	-
Hg-T	mg/L	<0.000010	<0.0000050	-
K-D	mg/L	1.06	1.24	15.65
K-T	mg/L	1.12	1.22	8.55
Li-D	mg/L	0.00771	0.0078	1.16
Li-T	mg/L	0.00774	0.0071	8.63
Mg-D	mg/L	16.6	19.3	15.04
Mg-T	mg/L	17.3	17.1	1.16
Mn-D	mg/L	0.0256	0.0292	13.14
Mn-T	mg/L	0.0264	0.028	5.88
Mo-D	mg/L	0.00016	0.000253	45.04
Mo-T	mg/L	0.00016	0.000256	46.15
Na-D	mg/L	1.95	2.28	15.60
Na-T	mg/L	2.03	2.02	0.49
Ni-D	mg/L	0.00085	0.00094	10.06
Ni-T	mg/L	0.00113	0.00091	21.57
N-NH4	mg/L	0.051	<0.0050	181.3
N-NO2	mg/L	<0.0050	<0.0010	-
N-NO3	mg/L	0.0579	0.0556	4.05
Pb-D	mg/L	<0.00020	<0.000050	-
Pb-T	mg/L	<0.00020	0.000052	63.2
P-D	mg/L	<0.050	<0.050	0
pH-L	pH units	7.96	8.18	2.73
P-T	mg/L	<0.050	<0.050	0
Sb-D	mg/L	0.00037	0.0003	20.90
Sb-T	mg/L	0.00036	0.00033	8.70
S-D	mg/L	26.7	30.1	11.97
Se-D	mg/L	<0.00050	0.000131	62.5
Se-T	mg/L	<0.00050	0.000156	46.3
Si-D	mg/L	3.9	4.42	12.50
Si-T	mg/L	4.1	4.1	0.00
Sn-D	mg/L	<0.00020	<0.00010	-
Sn-T	mg/L	<0.00020	<0.00010	-
Sr-D	mg/L	0.219	0.206	6.12
Sr-T	mg/L	0.221	0.219	0.91
S-T	mg/L	26.7	28.4	6.17
TDS	mg/L	205	250	19.78
Ti-D	mg/L	<0.0050	<0.00030	-
Ti-T	mg/L	<0.0050	0.00039	146.0
Tl-D	mg/L	<0.000020	<0.000010	-
Tl-T	mg/L	<0.000020	<0.000010	-
TSS	mg/L	<2.0	<3.0	-

U-D	mg/L	0.00137	0.00115	17.46
U-T	mg/L	0.00132	0.00125	5.45
V-D	mg/L	<0.0010	<0.00050	-
V-T	mg/L	<0.0010	<0.00050	-
Zn-D	mg/L	<0.0040	0.0013	42.2
Zn-T	mg/L	<0.0040	<0.0030	-
Zr-D	mg/L	<0.00010	<0.00030	-
Zr-T	mg/L	<0.00010	<0.00030	-

Comparison of samples independently collected by WRB and licensee at W22. WRB sampled collected at 15:00 on 9/10/2019. Licensee sample collected at 15:15 on 9/10/2019. Exceedances are highlighted in orange. *RPD % (Relative percent difference (x,y)) = [|x - y| ÷ |(x + y)/2|] * 100

		W22		
Parameter	**Unit**	**WRB**	**Licensee**	**RPD(%)***
Ag-D	mg/L	<0.000050	<0.000010	-
Ag-T	mg/L	<0.000050	<0.000010	-
Al-D	mg/L	0.0141	0.0036	118.6
Alk-T	mgCaCO3/L	106	115	8.1
Al-T	mg/L	0.0468	0.0441	5.9
As-D	mg/L	0.00107	0.00152	34.7
As-T	mg/L	0.00215	0.00249	14.7
Ba-D	mg/L	0.0425	0.0420	1.2
Ba-T	mg/L	0.0448	0.0405	10.1
B-D	mg/L	<0.0050	<0.010	-
Be-D	mg/L	<0.00010	<0.000020	-
Be-T	mg/L	<0.00010	<0.000020	-
Bi-D	mg/L	<0.00010	<0.000050	-
Bi-T	mg/L	<0.00010	<0.000050	-
B-T	mg/L	<0.0050	<0.010	-
Ca-D	mg/L	42.2	44.6	5.5
Ca-T	mg/L	43.6	42.4	2.8
Cd-D	mg/L	0.000012	0.0000100	18.2
Cd-T	mg/L	0.000044	0.0000096	128.4
Chlord	mg/L	0.19	<0.50	27.3
CN-T	mg/L	<0.0020	<0.0050	-
CN-WAD	mg/L	<0.0020	<0.0050	-
Co-D	mg/L	0.0001	0.00015	40.0
Cond-L	uS/cm	355	360	1.4
Co-T	mg/L	0.00015	0.00019	23.5
Cr-D	mg/L	<0.00050	<0.00010	-
Cr-T	mg/L	0.00055	0.00011	133.3
Cu-D	mg/L	<0.00040	0.00030	40.0
Cu-T	mg/L	0.00064	0.00051	22.6

Fe-D	mg/L	0.101	0.221	74.5
Fe-T	mg/L	0.18	0.288	46.2
Fluord	mg/L	<0.10	0.121	-
Hard-D	mgCaCO3/L	175	192	9.3
Hg-D	mg/L	<0.000010	<0.0000050	-
Hg-T	mg/L	<0.000010	<0.0000050	-
K-D	mg/L	1.02	1.29	23.4
K-T	mg/L	1.17	1.29	9.8
Li-D	mg/L	0.00779	0.0079	1.4
Li-T	mg/L	0.00816	0.0077	5.8
Mg-D	mg/L	16.9	19.7	15.3
Mg-T	mg/L	18.5	17.9	3.3
Mn-D	mg/L	0.0424	0.0562	28.0
Mn-T	mg/L	0.0465	0.0535	14.0
Mo-D	mg/L	<0.00010	0.000066	27.6
Mo-T	mg/L	<0.00010	0.000083	49.6
Na-D	mg/L	1.9	2.35	21.2
Na-T	mg/L	2.12	2.12	0.0
Ni-D	mg/L	0.00101	0.00105	3.9
Ni-T	mg/L	0.00129	0.00115	11.5
N-NH4	mg/L	0.046	<0.0050	179.4
N-NO2	mg/L	<0.0050	<0.0010	-
N-NO3	mg/L	0.0633	0.0585	7.9
Pb-D	mg/L	<0.00020	<0.000050	-
Pb-T	mg/L	0.00043	0.000214	67.1
P-D	mg/L	<0.050	<0.050	-
Sb-D	mg/L	0.00027	0.00024	11.8
Sb-T	mg/L	0.0003	0.00029	3.4
S-D	mg/L	26.2	27.8	5.9
Se-D	mg/L	<0.00050	0.000155	46.9
Se-T	mg/L	<0.00050	0.000109	78.6
Si-D	mg/L	3.8	4.27	11.6
Si-T	mg/L	4.3	4.18	2.8
Sn-D	mg/L	<0.00020	<0.00010	-
Sn-T	mg/L	<0.00020	<0.00010	-
Sr-D	mg/L	0.218	0.237	8.4
Sr-T	mg/L	0.234	0.217	7.5
S-T	mg/L	28.3	28.7	1.4
TDS	mg/L	208	254	19.9
Ti-D	mg/L	<0.0050	<0.00030	-
Ti-T	mg/L	<0.0050	<0.0021	-

Tl-D	mg/L	<0.000020	<0.000010	-
Tl-T	mg/L	<0.000020	<0.000010	-
TSS	mg/L	<2.0	3.1	102.4
U-D	mg/L	0.00133	0.00125	6.2
U-T	mg/L	0.00131	0.00124	5.5
V-D	mg/L	<0.0010	<0.00050	-
V-T	mg/L	<0.0010	<0.00050	-
Zn-D	mg/L	<0.0040	0.0012	50.0
Zn-T	mg/L	0.0041	<0.0030	92.9
Zr-D	mg/L	<0.00010	<0.00030	-
Zr-T	mg/L	<0.00010	<0.00030	-

Comparison of samples independently collected by WRB and licensee at W24. WRB sampled collected at 15:38 on 9/10/2019. Licensee sample collected at 15:30 on 9/10/2019. Exceedances are highlighted in orange. *RPD % (Relative percent difference (x,y)) = [|x - y| ÷ |(x + y)/2|] * 100

		W24		
Parameter	**Unit**	**WRB**	**Licensee**	**RPD(%)***
Ag-D	mg/L	<0.000050	<0.000010	-
Ag-T	mg/L	<0.000050	<0.000010	-
Al-D	mg/L	0.0054	0.0046	16
Alk-T	mgCaCO3/L	101	110	8.5
Al-T	mg/L	0.0484	0.0569	16.1
As-D	mg/L	0.0007	0.00081	14.6
As-T	mg/L	0.00107	0.00106	0.9
Ba-D	mg/L	0.0437	0.0413	5.6
Ba-T	mg/L	0.0456	0.0388	16.1
B-D	mg/L	<0.0050	<0.010	-
Be-D	mg/L	<0.00010	<0.000020	-
Be-T	mg/L	<0.00010	<0.000020	-
Bi-D	mg/L	<0.00010	<0.000050	-
Bi-T	mg/L	<0.00010	<0.000050	-
B-T	mg/L	<0.0050	<0.010	-
Ca-D	mg/L	41.2	43.2	4.7
Ca-T	mg/L	41.2	39.7	3.7
Cd-D	mg/L	0.000013	0.0000080	47.6
Cd-T	mg/L	0.000017	0.0000129	27.4
Chlord	mg/L	<0.10	<0.50	-
Co-D	mg/L	0.0001	0.00011	9.5
Cond-L	uS/cm	338	341	0.9
Co-T	mg/L	0.00025	0.00029	14.8
Cr-D	mg/L	<0.00050	<0.00010	-

Cr-T	mg/L	<0.00050	<0.00010	-
Cu-D	mg/L	<0.00040	0.00027	29.8
Cu-T	mg/L	0.00047	<0.00050	61.1
Fe-D	mg/L	0.038	0.041	7.6
Fe-T	mg/L	0.192	0.196	2.1
Fluord	mg/L	<0.10	0.118	81.0
Hard-D	mgCaCO3/L	169	182	7.4
Hg-D	mg/L	<0.000010	<0.0000050	-
Hg-T	mg/L	<0.000010	<0.0000050	-
K-D	mg/L	0.95	1.12	16.4
K-T	mg/L	1.05	1.05	0.0
Li-D	mg/L	0.00728	0.0072	1.1
Li-T	mg/L	0.0074	0.0068	8.5
Mg-D	mg/L	16.1	18.1	11.7
Mg-T	mg/L	17.4	16.2	7.1
Mn-D	mg/L	0.0421	0.0425	0.9
Mn-T	mg/L	0.08	0.0794	0.8
Mo-D	mg/L	<0.00010	0.000057	13.1
Mo-T	mg/L	0.00014	0.000082	52.3
Na-D	mg/L	1.97	2.28	14.6
Na-T	mg/L	2.14	2.00	6.8
Ni-D	mg/L	0.00115	0.00112	2.6
Ni-T	mg/L	0.00139	0.00132	5.2
N-NH4	mg/L	0.083	<0.0050	188.3
N-NO2	mg/L	<0.0050	<0.0010	-
N-NO3	mg/L	0.0706	0.0682	3.5
Pb-D	mg/L	<0.00020	<0.000050	-
Pb-T	mg/L	<0.00020	0.000090	10.5
P-D	mg/L	<0.050	<0.050	0
pH-L	pH units	8.01	8.20	2.3
P-T	mg/L	<0.050	<0.050	0
Sb-D	mg/L	0.00027	0.00020	29.8
Sb-T	mg/L	0.00024	0.00024	0.0
S-D	mg/L	26.1	27.1	3.8
Se-D	mg/L	<0.00050	0.000123	68.1
Se-T	mg/L	<0.00050	0.000113	75.5
Si-D	mg/L	3.8	4.05	6.4
Si-T	mg/L	4.2	3.83	9.2
Sn-D	mg/L	<0.00020	<0.00010	-
Sn-T	mg/L	<0.00020	<0.00010	-
Sr-D	mg/L	0.221	0.230	4.0

Sr-T	mg/L	0.233	0.216	7.6
S-T	mg/L	27.2	25.9	4.9
TDS	mg/L	197	238	18.9
Ti-D	mg/L	<0.0050	<0.00030	-
Ti-T	mg/L	<0.0050	0.00112	127.0
Tl-D	mg/L	<0.000020	<0.000010	-
Tl-T	mg/L	<0.000020	<0.000010	-
TSS	mg/L	<2.0	<3.0	-
U-D	mg/L	0.00116	0.00105	10.0
U-T	mg/L	0.00109	0.00103	5.7
V-D	mg/L	<0.0010	<0.00050	-
V-T	mg/L	<0.0010	<0.00050	-
Zn-D	mg/L	<0.0040	0.0014	150.0
Zn-T	mg/L	0.0043	<0.0030	96.5
Zr-D	mg/L	<0.00010	<0.00030	-
Zr-T	mg/L	<0.00010	<0.00030	-

Comparison of samples independently collected by WRB and licensee at W99. WRB sampled collected at 10:38 on 9/11/2019. Licensee sample collected at 10:30 on 9/11/2019. Exceedances are highlighted in orange. *RPD % (Relative percent difference (x,y)) = [|x - y| ÷ |(x + y)/2|] * 100

		W99		
Parameter	**Unit**	**WRB**	**Licensee**	**RPD(%)***
Ag-D	mg/L	<0.000050	<0.000010	-
Ag-T	mg/L	<0.000050	<0.000010	-
Al-D	mg/L	<0.0050	0.0036	36.1
Alk-T	mgCaCO3/L	114	125	9.2
Al-T	mg/L	0.0076	0.0057	28.6
As-D	mg/L	0.00253	0.00315	21.8
As-T	mg/L	0.00278	0.00304	8.9
Ba-D	mg/L	0.0474	0.0449	5.4
Ba-T	mg/L	0.0496	0.0427	15.0
B-D	mg/L	<0.0050	<0.010	-
Be-D	mg/L	<0.00010	<0.000020	-
Be-T	mg/L	<0.00010	<0.000020	-
Bi-D	mg/L	<0.00010	<0.000050	-
Bi-T	mg/L	<0.00010	<0.000050	-
B-T	mg/L	<0.0050	<0.010	-
Ca-D	mg/L	48.4	50.0	3.3
Ca-T	mg/L	50.2	46.9	6.8
Cd-D	mg/L	<0.000010	0.0000123	84.4
Cd-T	mg/L	0.000017	0.0000104	48.2

Chlord	mg/L	0.39	<0.50	43.8
CN-T	mg/L	<0.0020	<0.0050	-
CN-WAD	mg/L	<0.0020	<0.0050	-
Co-D	mg/L	<0.00010	<0.00010	0
Cond-L	uS/cm	390	398	2.0
Co-T	mg/L	<0.00010	0.00011	75.0
Cr-D	mg/L	<0.00050	<0.00010	-
Cr-T	mg/L	<0.00050	<0.00010	-
Cu-D	mg/L	<0.00040	0.00040	66.7
Cu-T	mg/L	0.002	0.00058	110.1
Fe-D	mg/L	0.017	0.023	30.0
Fe-T	mg/L	0.041	0.039	5.0
Fluord	mg/L	0.1	0.120	18.2
Hard-D	mgCaCO3/L	199	215	7.7
Hg-D	mg/L	<0.000010	<0.0000050	-
Hg-T	mg/L	<0.000010	<0.0000050	-
K-D	mg/L	1.17	1.40	17.9
K-T	mg/L	1.28	1.38	7.5
Li-D	mg/L	0.00807	0.0080	0.9
Li-T	mg/L	0.00848	0.0075	12.3
Mg-D	mg/L	19	21.9	14.2
Mg-T	mg/L	20.6	19.9	3.5
Mn-D	mg/L	0.0683	0.0710	3.9
Mn-T	mg/L	0.071	0.0665	6.5
Mo-D	mg/L	0.00026	0.000176	38.5
Mo-T	mg/L	0.00021	0.000289	31.7
Na-D	mg/L	2.22	2.64	17.3
Na-T	mg/L	2.38	2.33	2.1
Ni-D	mg/L	0.00099	0.00102	3.0
Ni-T	mg/L	0.00107	0.00100	6.8
N-NH4	mg/L	0.059	0.0201	98.4
N-NO2	mg/L	<0.0050	<0.0010	-
N-NO3	mg/L	0.0604	0.0596	1.3
Pb-D	mg/L	<0.00020	<0.000050	-
Pb-T	mg/L	<0.00020	0.000055	58.1
P-D	mg/L	<0.050	<0.050	0
pH-L	pH units	8.02	8.24	2.7
P-T	mg/L	<0.050	<0.050	0
Sb-D	mg/L	0.00057	0.00057	0.0
Sb-T	mg/L	0.0006	0.00061	1.7
S-D	mg/L	30.5	31.7	3.9

Se-D	mg/L	<0.00050	0.000122	68.8
Se-T	mg/L	<0.00050	0.000115	74.0
Si-D	mg/L	3.9	4.30	9.8
Si-T	mg/L	4.3	4.06	5.7
Sn-D	mg/L	<0.00020	<0.00010	-
Sn-T	mg/L	<0.00020	<0.00010	-
Sr-D	mg/L	0.248	0.261	5.1
Sr-T	mg/L	0.265	0.261	1.5
S-T	mg/L	31.7	32.5	2.5
TDS	mg/L	230	291	23.4
Ti-D	mg/L	<0.0050	<0.00030	-
Ti-T	mg/L	<0.0050	<0.00030	-
Tl-D	mg/L	<0.000020	<0.000010	-
Tl-T	mg/L	<0.000020	<0.000010	-
TSS	mg/L	<2.0	<3.0	-
U-D	mg/L	0.00177	0.00163	8.2
U-T	mg/L	0.00177	0.00169	4.6
V-D	mg/L	<0.0010	<0.00050	-
V-T	mg/L	<0.0010	<0.00050	-
Zn-D	mg/L	<0.0040	0.0015	28.6
Zn-T	mg/L	<0.0040	<0.0030	-
Zr-D	mg/L	<0.00010	<0.00030	-
Zr-T	mg/L	<0.00010	<0.00030	-

Appendix F: Arsenic Variability and Analysis

Table 1: *Comparison of the median, mean, and standard deviation of As-T (mg/L) between baseline and post-baseline from stations W1, W22, W4, and W23. P-values for all stations were calculated using an independent t-test with one tail and unequal variance.*

	W1		**W22**		**W4**		**W23**	
	Baseline	Post-baseline	Baseline	Post-baseline	Baseline	Post-baseline	Baseline	Post-baseline
n	92	34	60	30	79	33	42	28
Median	0.0343	0.0337	0.0008	0.00081	0.00321	0.00276	0.00518	0.00460
Mean	0.0358	0.0388	0.000936	0.00125	0.004453	0.00914	0.00629	0.00689
SD	0.0093	0.0220	0.000571	0.00125	0.00531	0.0134	0.00498	0.00627
P value	0.22		0.09		0.03		0.33	

Appendix G: CARO Analytical Report

CERTIFICATE OF ANALYSIS

REPORTED TO	Yukon Government - Water Resources Suite 210, 419 Range Road Whitehorse, YT Y1A 3V1		
ATTENTION	Nicole Novodvorsky	**WORK ORDER**	9091305
PO NUMBER		**RECEIVED / TEMP**	2019-09-13 11:00 / 6°C
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04
PROJECT INFO	YK Water Resources - C00043458	**COC NUMBER**	B80857

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO 17025:2005 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

If you have any questions or concerns, please contact me at bshaw@caro.ca

Authorized By:

Bryan Shaw, Ph.D., P.Chem.
Client Service Coordinator

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-01 (SEP) (9091305-01) | Matrix: Water | Sampled: 2019-09-10 13:31					
Anions					
Chloride	**54.5**	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0291**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	**0.0154**	0.0050	mg/L	2019-09-13	
Sulfate	**2.3**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Ammonia, Un-Ionized (as N)	**1.08**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0137**	0.0100	mg/L	N/A	
General Parameters					
Alkalinity, Total (as CaCO3)	**457**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**457**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**68.5**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**1240**	2.0	µS/cm	2019-09-16	
Oil & Grease, Total	**61.4**	2.0	mg/L	2019-09-19	
pH	**7.48**	0.10	pH units	2019-09-16	HT2
Phosphorus, Total (as P)	**11.7**	0.0020	mg/L	2019-09-16	
Solids, Total Suspended	**182**	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**24.1**		°C	2019-09-16	HT2
2019T27-02 (HLF-UMV) (9091305-02) | Matrix: Water | Sampled: 2019-09-10 14:05					
Anions					
Chloride	**0.12**	0.10	mg/L	2019-09-15	
Fluoride	**0.20**	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0162**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**64.3**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**105**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	< 0.001	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0162**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**135**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.0438**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	**0.0064**	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00231**	0.00020	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-02 (HLF-UMV) (9091305-02) | Matrix: Water | Sampled: 2019-09-10 14:05, Continued					
Dissolved Metals, Continued					
Arsenic, dissolved	**0.0124**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0271**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	**0.0082**	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000046**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**24.4**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	**0.00105**	0.00010	mg/L	2019-09-20	
Copper, dissolved	**0.00387**	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.035**	0.010	mg/L	2019-09-20	
Lead, dissolved	**0.00059**	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**10.7**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.152**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00984**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**2.39**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**10.5**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**2.43**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.142**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**21.3**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.000079**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	**0.0178**	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**50.2**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**50.2**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.032**	0.020	mg/L	2019-09-18	

TEST RESULTS

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PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-02 (HLF-UMV) (9091305-02) | Matrix: Water | Sampled: 2019-09-10 14:05, Continued					
General Parameters, Continued					
Conductivity (EC)	**226**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-19	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**6.92**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**22.3**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0095**	0.0050	mg/L	2019-09-23	
Antimony, total	**0.00243**	0.00020	mg/L	2019-09-23	
Arsenic, total	**0.0158**	0.00050	mg/L	2019-09-23	
Barium, total	**0.0281**	0.0050	mg/L	2019-09-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-23	
Boron, total	**0.0147**	0.0050	mg/L	2019-09-23	
Cadmium, total	**0.000048**	0.000010	mg/L	2019-09-23	
Calcium, total	**25.1**	0.20	mg/L	2019-09-23	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-23	
Cobalt, total	**0.00117**	0.00010	mg/L	2019-09-23	
Copper, total	< 0.00040	0.00040	mg/L	2019-09-23	
Iron, total	**0.100**	0.010	mg/L	2019-09-23	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-23	
Lithium, total	**0.0527**	0.00010	mg/L	2019-09-23	
Magnesium, total	**12.7**	0.010	mg/L	2019-09-23	
Manganese, total	**0.166**	0.00020	mg/L	2019-09-23	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	< 0.00010	0.00010	mg/L	2019-09-23	
Nickel, total	**0.0109**	0.00040	mg/L	2019-09-23	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-23	
Potassium, total	**2.86**	0.10	mg/L	2019-09-23	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-23	
Silicon, total	**11.5**	1.0	mg/L	2019-09-23	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-23	
Sodium, total	**2.88**	0.10	mg/L	2019-09-23	
Strontium, total	**0.165**	0.0010	mg/L	2019-09-23	
Sulfur, total	**26.3**	3.0	mg/L	2019-09-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-23	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-23	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-23	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-23	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-23	
Uranium, total	**0.000072**	0.000020	mg/L	2019-09-23	

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PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-02 (HLF-UMV) (9091305-02) | Matrix: Water | Sampled: 2019-09-10 14:05, Continued					
Total Metals, Continued					
Vanadium, total	**0.0013**	0.0010	mg/L	2019-09-23	
Zinc, total	**0.0181**	0.0040	mg/L	2019-09-23	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-23	
2019T27-03 (LDSP-S) (9091305-03) | Matrix: Water | Sampled: 2019-09-10 14:41					
Anions					
Chloride	**3.14**	0.10	mg/L	2019-09-15	
Fluoride	**0.14**	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**103**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**264**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.003**	0.001	mg/L	2019-09-20	
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
Solids, Total Dissolved	**310**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.0128**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	**0.0104**	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00392**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.0562**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0824**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	**0.0055**	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000014**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**62.8**	0.20	mg/L	2019-09-20	
Chromium, dissolved	**0.00055**	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	**0.00537**	0.00040	mg/L	2019-09-20	
Iron, dissolved	< 0.010	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**25.9**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0227**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	**0.00108**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00262**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**2.53**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	

TEST RESULTS

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PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-03 (LDSP-S) (9091305-03) | Matrix: Water | Sampled: 2019-09-10 14:41, Continued					
Dissolved Metals, Continued					
Silicon, dissolved	**2.9**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**4.47**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.360**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**34.8**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00646**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**177**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**177**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.042**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**517**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**8.26**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**22.9**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0308**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00403**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.0618**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0870**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000017**	0.000010	mg/L	2019-09-20	
Calcium, total	**65.9**	0.20	mg/L	2019-09-20	
Chromium, total	**0.00054**	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	**0.00175**	0.00040	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-03 (LDSP-S) (9091305-03) | Matrix: Water | Sampled: 2019-09-10 14:41, Continued					
Total Metals, Continued					
Iron, total	**0.050**	0.010	mg/L	2019-09-20	
Lead, total	**0.00024**	0.00020	mg/L	2019-09-20	
Lithium, total	**0.0134**	0.00010	mg/L	2019-09-20	
Magnesium, total	**28.4**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0285**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00124**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00103**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**2.78**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**3.3**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**4.95**	0.10	mg/L	2019-09-20	
Strontium, total	**0.385**	0.0010	mg/L	2019-09-20	
Sulfur, total	**36.8**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00640**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-04 (W-22) (9091305-04) | Matrix: Water | Sampled: 2019-09-10 15:00					
Anions					
Chloride	**0.19**	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0633**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**80.5**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**175**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.002**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0633**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**208**	10	mg/L	2019-09-23	
Dissolved Metals					

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-04 (W-22) (9091305-04) | Matrix: Water | Sampled: 2019-09-10 15:00, Continued					
Dissolved Metals, Continued					
Lithium, dissolved	**0.00779**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	**0.0141**	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00027**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00107**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0425**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000012**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**42.2**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	**0.00010**	0.00010	mg/L	2019-09-20	
Copper, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.101**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**16.9**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0424**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00101**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**1.02**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**3.8**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**1.90**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.218**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**26.2**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00133**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**106**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**106**	1.0	mg/L	2019-09-16	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-04 (W-22) (9091305-04) | Matrix: Water | Sampled: 2019-09-10 15:00, Continued					
General Parameters, Continued					
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.046**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**355**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**7.93**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.5**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0468**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00030**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00215**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0448**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000044**	0.000010	mg/L	2019-09-20	
Calcium, total	**43.6**	0.20	mg/L	2019-09-20	
Chromium, total	**0.00055**	0.00050	mg/L	2019-09-20	
Cobalt, total	**0.00015**	0.00010	mg/L	2019-09-20	
Copper, total	**0.00064**	0.00040	mg/L	2019-09-20	
Iron, total	**0.180**	0.010	mg/L	2019-09-20	
Lead, total	**0.00043**	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00816**	0.00010	mg/L	2019-09-20	
Magnesium, total	**18.5**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0465**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00129**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**1.17**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**4.3**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.12**	0.10	mg/L	2019-09-20	
Strontium, total	**0.234**	0.0010	mg/L	2019-09-20	
Sulfur, total	**28.3**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-04 (W-22) (9091305-04) | Matrix: Water | Sampled: 2019-09-10 15:00, Continued					
Total Metals, Continued					
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00131**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	**0.0041**	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-05 (W-24) (9091305-05) | Matrix: Water | Sampled: 2019-09-10 15:38					
Anions					
Chloride	< 0.10	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0706**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**74.8**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**169**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.004**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0706**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**197**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00728**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	**0.0054**	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00027**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00070**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0437**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000013**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**41.2**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	**0.00010**	0.00010	mg/L	2019-09-20	
Copper, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.038**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**16.1**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0421**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00115**	0.00040	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-05 (W-24) (9091305-05) | Matrix: Water | Sampled: 2019-09-10 15:38, Continued					
Dissolved Metals, Continued					
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**0.95**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**3.8**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**1.97**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.221**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**26.1**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00116**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**101**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**101**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.083**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**338**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**8.01**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.8**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0484**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00024**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00107**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0456**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000017**	0.000010	mg/L	2019-09-20	
Calcium, total	**41.2**	0.20	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-05 (W-24) (9091305-05) | Matrix: Water | Sampled: 2019-09-10 15:38, Continued					
Total Metals, Continued					
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	**0.00025**	0.00010	mg/L	2019-09-20	
Copper, total	**0.00047**	0.00040	mg/L	2019-09-20	
Iron, total	**0.192**	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00740**	0.00010	mg/L	2019-09-20	
Magnesium, total	**17.4**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0800**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00014**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00139**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**1.05**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**4.2**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.14**	0.10	mg/L	2019-09-20	
Strontium, total	**0.233**	0.0010	mg/L	2019-09-20	
Sulfur, total	**27.2**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00109**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	**0.0043**	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-06 (W-4) (9091305-06) | Matrix: Water | Sampled: 2019-09-10 16:22					
Anions					
Chloride	**0.16**	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0579**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**79.2**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**173**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.002**	0.001	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO Yukon Government - Water Resources
PROJECT Eagle Gold

WORK ORDER 9091305
REPORTED 2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-06 (W-4) (9091305-06) | Matrix: Water | Sampled: 2019-09-10 16:22, Continued					
Calculated Parameters, Continued					
Nitrate (as N)	**0.0579**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**205**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00771**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00037**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00184**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0438**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000014**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**41.9**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.023**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**16.6**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0256**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	**0.00016**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00085**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**1.06**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**3.9**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**1.95**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.219**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**26.7**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00137**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-06 (W-4) (9091305-06) | Matrix: Water | Sampled: 2019-09-10 16:22, Continued					
General Parameters					
Alkalinity, Total (as CaCO3)	**104**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**104**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.051**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**349**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**7.96**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.5**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0165**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00036**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00228**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0435**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000011**	0.000010	mg/L	2019-09-20	
Calcium, total	**42.1**	0.20	mg/L	2019-09-20	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	**0.00014**	0.00010	mg/L	2019-09-20	
Copper, total	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, total	**0.063**	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00774**	0.00010	mg/L	2019-09-20	
Magnesium, total	**17.3**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0264**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00016**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00113**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**1.12**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**4.1**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.03**	0.10	mg/L	2019-09-20	
Strontium, total	**0.221**	0.0010	mg/L	2019-09-20	
Sulfur, total	**26.7**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-06 (W-4) (9091305-06) | Matrix: Water | Sampled: 2019-09-10 16:22, Continued					
Total Metals, Continued					
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00132**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-07 (W-1) (9091305-07) | Matrix: Water | Sampled: 2019-09-10 16:58					
Anions					
Chloride	< 0.10	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**17.2**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**58.1**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	< 0.001	0.001	mg/L	2019-09-20	
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
Solids, Total Dissolved	**70**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00258**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	**0.0139**	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00117**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.0272**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0548**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**16.5**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, dissolved	< 0.010	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**4.13**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.00066**	0.00020	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-07 (W-1) (9091305-07) | Matrix: Water | Sampled: 2019-09-10 16:58, Continued					
Dissolved Metals, Continued					
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	**0.00217**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**0.79**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**6.0**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**1.67**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.0937**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**5.3**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.000648**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**49.2**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**49.2**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.032**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**129**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**7.70**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.2**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0567**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00120**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.0302**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0559**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-07 (W-1) (9091305-07) | Matrix: Water | Sampled: 2019-09-10 16:58, Continued					
Total Metals, Continued					
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000011**	0.000010	mg/L	2019-09-20	
Calcium, total	**16.9**	0.20	mg/L	2019-09-20	
Chromium, total	**0.00064**	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	**0.00043**	0.00040	mg/L	2019-09-20	
Iron, total	**0.093**	0.010	mg/L	2019-09-20	
Lead, total	**0.00026**	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00275**	0.00010	mg/L	2019-09-20	
Magnesium, total	**4.43**	0.010	mg/L	2019-09-20	
Manganese, total	**0.00473**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00220**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00067**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**0.87**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**6.3**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**1.79**	0.10	mg/L	2019-09-20	
Strontium, total	**0.0976**	0.0010	mg/L	2019-09-20	
Sulfur, total	**5.4**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.000674**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-08 (W-25) (9091305-08) | Matrix: Water | Sampled: 2019-09-10 10:01					
Anions					
Chloride	**0.35**	0.10	mg/L	2019-09-15	
Fluoride	**0.10**	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0613**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**83.9**	1.0	mg/L	2019-09-15	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-08 (W-25) (9091305-08) | Matrix: Water | Sampled: 2019-09-10 10:01, Continued					
Calculated Parameters					
Hardness, Total (as CaCO3)	**185**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.004**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0613**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**221**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00754**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00051**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00201**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0448**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000020**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**44.6**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	**0.00049**	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.015**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**17.9**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0584**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	**0.00020**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00130**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**1.08**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**3.9**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**2.07**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.230**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**28.1**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00165**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	**0.0043**	0.0040	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-08 (W-25) (9091305-08) | Matrix: Water | Sampled: 2019-09-10 10:01, Continued					
Dissolved Metals, Continued					
Zirconium, dissolved	**0.00014**	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**115**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**115**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.096**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**375**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**8.00**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**22.8**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0092**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00054**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00216**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0433**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000014**	0.000010	mg/L	2019-09-20	
Calcium, total	**44.7**	0.20	mg/L	2019-09-20	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	**0.00043**	0.00040	mg/L	2019-09-20	
Iron, total	**0.028**	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00759**	0.00010	mg/L	2019-09-20	
Magnesium, total	**18.7**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0581**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00018**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00101**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**1.13**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**4.0**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.13**	0.10	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-08 (W-25) (9091305-08) | Matrix: Water | Sampled: 2019-09-10 10:01, Continued					
Total Metals, Continued					
Strontium, total	**0.233**	0.0010	mg/L	2019-09-20	
Sulfur, total	**27.5**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00157**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-09 (W-99) (9091305-09) | Matrix: Water | Sampled: 2019-09-10 10:38					
Anions					
Chloride	**0.39**	0.10	mg/L	2019-09-15	
Fluoride	**0.10**	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0604**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**89.2**	1.0	mg/L	2019-09-15	
BCMOE Aggregate Hydrocarbons					
VHw (6-10)	< 100	100	µg/L	2019-09-17	
VPHw	< 100	100	µg/L	N/A	
EPHw10-19	< 250	250	µg/L	2019-09-21	
EPHw19-32	< 250	250	µg/L	2019-09-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*100*	*60-126*	%	*2019-09-21*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**199**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.003**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0604**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**230**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00807**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00057**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00253**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0474**	0.0050	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-09 (W-99) (9091305-09) | Matrix: Water | Sampled: 2019-09-10 10:38, Continued					
Dissolved Metals, Continued					
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**48.4**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.017**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**19.0**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0683**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	**0.00026**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00099**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**1.17**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**3.9**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**2.22**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.248**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**30.5**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00177**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**114**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**114**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.059**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**390**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-09 (W-99) (9091305-09) | Matrix: Water | Sampled: 2019-09-10 10:38, Continued					
General Parameters, Continued					
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**8.02**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.2**		°C	2019-09-16	HT2
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2019-09-20	
Acenaphthylene	< 0.200	0.200	µg/L	2019-09-20	
Acridine	< 0.050	0.050	µg/L	2019-09-20	
Anthracene	< 0.010	0.010	µg/L	2019-09-20	
Benz(a)anthracene	< 0.010	0.010	µg/L	2019-09-20	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2019-09-20	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2019-09-20	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2019-09-20	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2019-09-20	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2019-09-20	
Chrysene	< 0.050	0.050	µg/L	2019-09-20	
Dibenz(a,h)anthracene	**0.012**	0.010	µg/L	2019-09-20	
Fluoranthene	< 0.030	0.030	µg/L	2019-09-20	
Fluorene	< 0.050	0.050	µg/L	2019-09-20	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2019-09-20	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2019-09-20	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2019-09-20	
Naphthalene	< 0.200	0.200	µg/L	2019-09-20	
Phenanthrene	< 0.100	0.100	µg/L	2019-09-20	
Pyrene	< 0.020	0.020	µg/L	2019-09-20	
Quinoline	< 0.050	0.050	µg/L	2019-09-20	
Surrogate: Acridine-d9	*96*	*50-140*	%	*2019-09-20*	
Surrogate: Naphthalene-d8	*119*	*50-140*	%	*2019-09-20*	
Surrogate: Perylene-d12	*121*	*50-140*	%	*2019-09-20*	
Total Metals					
Aluminum, total	**0.0076**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00060**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00278**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0496**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000017**	0.000010	mg/L	2019-09-20	
Calcium, total	**50.2**	0.20	mg/L	2019-09-20	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-09 (W-99) (9091305-09) | Matrix: Water | Sampled: 2019-09-10 10:38, Continued					
Total Metals, Continued					
Copper, total	**0.00200**	0.00040	mg/L	2019-09-20	
Iron, total	**0.041**	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00848**	0.00010	mg/L	2019-09-20	
Magnesium, total	**20.6**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0710**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00021**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00107**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**1.28**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**4.3**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.38**	0.10	mg/L	2019-09-20	
Strontium, total	**0.265**	0.0010	mg/L	2019-09-20	
Sulfur, total	**31.7**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00177**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Volatile Organic Compounds (VOC)					
Benzene	< 0.5	0.5	µg/L	2019-09-17	
Ethylbenzene	< 1.0	1.0	µg/L	2019-09-17	
Methyl tert-butyl ether	< 1.0	1.0	µg/L	2019-09-17	
Styrene	< 1.0	1.0	µg/L	2019-09-17	
Toluene	< 1.0	1.0	µg/L	2019-09-17	
Xylenes (total)	< 2.0	2.0	µg/L	2019-09-17	
Surrogate: Toluene-d8	*92*	*70-130*	%	*2019-09-17*	
Surrogate: 4-Bromofluorobenzene	*110*	*70-130*	%	*2019-09-17*	
2019T27-10 (W-99) DUP (9091305-10) | Matrix: Water | Sampled: 2019-09-10 10:46					
Anions					
Chloride	**0.39**	0.10	mg/L	2019-09-15	
Fluoride	**0.10**	0.10	mg/L	2019-09-15	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-10 (W-99) DUP (9091305-10) | Matrix: Water | Sampled: 2019-09-10 10:46, Continued					
Anions, Continued					
Nitrate+Nitrite (as N)	**0.0606**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**89.3**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**194**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.002**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0606**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**232**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00775**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00057**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00253**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0488**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	**0.000015**	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**46.2**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	**0.00068**	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.021**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**19.0**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.0688**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-18	
Molybdenum, dissolved	**0.00017**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	**0.00101**	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**1.17**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**4.0**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**2.20**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.251**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**30.6**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-10 (W-99) DUP (9091305-10) | Matrix: Water | Sampled: 2019-09-10 10:46, Continued					
Dissolved Metals, Continued					
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00177**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**120**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**120**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.049**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**390**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**8.02**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.5**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0066**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00056**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00269**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0459**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000019**	0.000010	mg/L	2019-09-20	
Calcium, total	**45.3**	0.20	mg/L	2019-09-20	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, total	**0.034**	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00767**	0.00010	mg/L	2019-09-20	
Magnesium, total	**19.1**	0.010	mg/L	2019-09-20	
Manganese, total	**0.0670**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00016**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00098**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-10 (W-99) DUP (9091305-10) | Matrix: Water | Sampled: 2019-09-10 10:46, Continued					
Total Metals, Continued					
Potassium, total	**1.20**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**3.9**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.21**	0.10	mg/L	2019-09-20	
Strontium, total	**0.245**	0.0010	mg/L	2019-09-20	
Sulfur, total	**29.5**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00163**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-11 (QAQC) (9091305-11) | Matrix: Water | Sampled: 2019-09-10 10:38					
Anions					
Chloride	< 0.10	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	< 1.0	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	< 0.500	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	< 0.001	0.001	mg/L	2019-09-20	
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
Solids, Total Dissolved	< 10	10	mg/L	2019-09-23	
General Parameters					
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.076**	0.020	mg/L	2019-09-18	
Conductivity (EC)	< 2.0	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-11 (QAQC) (9091305-11) | Matrix: Water | Sampled: 2019-09-10 10:38, Continued					
General Parameters, Continued					
pH	**4.56**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.7**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0052**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00071**	0.00020	mg/L	2019-09-20	
Arsenic, total	< 0.00050	0.00050	mg/L	2019-09-20	
Barium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	< 0.000010	0.000010	mg/L	2019-09-20	
Calcium, total	< 0.20	0.20	mg/L	2019-09-20	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	**0.00487**	0.00040	mg/L	2019-09-20	
Iron, total	< 0.010	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Magnesium, total	< 0.010	0.010	mg/L	2019-09-20	
Manganese, total	< 0.00020	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, total	< 0.00040	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	< 0.10	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	< 1.0	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	< 0.10	0.10	mg/L	2019-09-20	
Strontium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Sulfur, total	< 3.0	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	**0.0052**	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-12 (QAQC) (9091305-12) | Matrix: Water | Sampled: 2019-09-10 10:40					
Anions					
Chloride	< 0.10	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	< 1.0	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	< 0.500	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	< 0.001	0.001	mg/L	2019-09-20	
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
Solids, Total Dissolved	< 10	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Barium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2019-09-20	
Calcium, dissolved	< 0.20	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Iron, dissolved	< 0.010	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	< 0.010	0.010	mg/L	2019-09-20	
Manganese, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	< 0.10	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	< 1.0	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	< 0.10	0.10	mg/L	2019-09-20	
Strontium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	< 3.0	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	

TEST RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
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Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-12 (QAQC) (9091305-12) | Matrix: Water | Sampled: 2019-09-10 10:40, Continued					
Dissolved Metals, Continued					
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.029**	0.020	mg/L	2019-09-18	
Conductivity (EC)	< 2.0	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	
pH	**4.43**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.8**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, total	< 0.00020	0.00020	mg/L	2019-09-20	
Arsenic, total	< 0.00050	0.00050	mg/L	2019-09-20	
Barium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	< 0.000010	0.000010	mg/L	2019-09-20	
Calcium, total	< 0.20	0.20	mg/L	2019-09-20	
Chromium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	**0.00075**	0.00040	mg/L	2019-09-20	
Iron, total	< 0.010	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Magnesium, total	< 0.010	0.010	mg/L	2019-09-20	
Manganese, total	< 0.00020	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	

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Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-12 (QAQC) (9091305-12) | Matrix: Water | Sampled: 2019-09-10 10:40, Continued					
Total Metals, Continued					
Molybdenum, total	< 0.00010	0.00010	mg/L	2019-09-20	
Nickel, total	< 0.00040	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	< 0.10	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	< 1.0	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	< 0.10	0.10	mg/L	2019-09-20	
Strontium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Sulfur, total	< 3.0	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	
2019T27-13 (W-6) (9091305-13) | Matrix: Water | Sampled: 2019-09-10 11:26					
Anions					
Chloride	**0.12**	0.10	mg/L	2019-09-15	
Fluoride	< 0.10	0.10	mg/L	2019-09-15	
Nitrate+Nitrite (as N)	**0.0402**	0.0050	mg/L	2019-09-15	
Nitrite (as N)	< 0.0050	0.0050	mg/L	2019-09-13	
Sulfate	**75.3**	1.0	mg/L	2019-09-15	
Calculated Parameters					
Hardness, Total (as CaCO3)	**176**	0.500	mg/L	N/A	
Ammonia, Un-Ionized (as N)	**0.002**	0.001	mg/L	2019-09-20	
Nitrate (as N)	**0.0402**	0.0100	mg/L	N/A	
Solids, Total Dissolved	**212**	10	mg/L	2019-09-23	
Dissolved Metals					
Lithium, dissolved	**0.00159**	0.00010	mg/L	2019-09-20	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Antimony, dissolved	**0.00038**	0.00020	mg/L	2019-09-20	
Arsenic, dissolved	**0.00458**	0.00050	mg/L	2019-09-20	
Barium, dissolved	**0.0631**	0.0050	mg/L	2019-09-20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	

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Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-13 (W-6) (9091305-13) | Matrix: Water | Sampled: 2019-09-10 11:26, Continued					
Dissolved Metals, Continued					
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2019-09-20	
Calcium, dissolved	**55.8**	0.20	mg/L	2019-09-20	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, dissolved	**0.00048**	0.00040	mg/L	2019-09-20	
Iron, dissolved	**0.011**	0.010	mg/L	2019-09-20	
Lead, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Magnesium, dissolved	**8.88**	0.010	mg/L	2019-09-20	
Manganese, dissolved	**0.00796**	0.00020	mg/L	2019-09-20	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, dissolved	**0.00098**	0.00010	mg/L	2019-09-20	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2019-09-20	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2019-09-20	
Potassium, dissolved	**1.18**	0.10	mg/L	2019-09-20	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, dissolved	**3.6**	1.0	mg/L	2019-09-20	
Silver, dissolved	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, dissolved	**2.21**	0.10	mg/L	2019-09-20	
Strontium, dissolved	**0.243**	0.0010	mg/L	2019-09-20	
Sulfur, dissolved	**26.6**	3.0	mg/L	2019-09-20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, dissolved	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, dissolved	**0.00114**	0.000020	mg/L	2019-09-20	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, dissolved	**0.0046**	0.0040	mg/L	2019-09-20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2019-09-20	
General Parameters					
Alkalinity, Total (as CaCO3)	**112**	1.0	mg/L	2019-09-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Bicarbonate (as CaCO3)	**112**	1.0	mg/L	2019-09-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2019-09-16	
Ammonia, Total (as N)	**0.030**	0.020	mg/L	2019-09-18	
Conductivity (EC)	**360**	2.0	µS/cm	2019-09-16	
Cyanide, Total	< 0.0020	0.0020	mg/L	2019-09-18	
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L	2019-09-16	

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Analyte	Result	RL	Units	Analyzed	Qualifier
2019T27-13 (W-6) (9091305-13) | Matrix: Water | Sampled: 2019-09-10 11:26, Continued					
General Parameters, Continued					
pH	**8.01**	0.10	pH units	2019-09-16	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2019-09-19	HT1
Temperature, at pH	**23.8**		°C	2019-09-16	HT2
Total Metals					
Aluminum, total	**0.0064**	0.0050	mg/L	2019-09-20	
Antimony, total	**0.00038**	0.00020	mg/L	2019-09-20	
Arsenic, total	**0.00487**	0.00050	mg/L	2019-09-20	
Barium, total	**0.0640**	0.0050	mg/L	2019-09-20	
Beryllium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Bismuth, total	< 0.00010	0.00010	mg/L	2019-09-20	
Boron, total	< 0.0050	0.0050	mg/L	2019-09-20	
Cadmium, total	**0.000011**	0.000010	mg/L	2019-09-20	
Calcium, total	**56.9**	0.20	mg/L	2019-09-20	
Chromium, total	**0.00053**	0.00050	mg/L	2019-09-20	
Cobalt, total	< 0.00010	0.00010	mg/L	2019-09-20	
Copper, total	**0.00082**	0.00040	mg/L	2019-09-20	
Iron, total	**0.064**	0.010	mg/L	2019-09-20	
Lead, total	< 0.00020	0.00020	mg/L	2019-09-20	
Lithium, total	**0.00167**	0.00010	mg/L	2019-09-20	
Magnesium, total	**9.65**	0.010	mg/L	2019-09-20	
Manganese, total	**0.00874**	0.00020	mg/L	2019-09-20	
Mercury, total	< 0.000010	0.000010	mg/L	2019-09-19	
Molybdenum, total	**0.00101**	0.00010	mg/L	2019-09-20	
Nickel, total	**0.00054**	0.00040	mg/L	2019-09-20	
Phosphorus, total	< 0.050	0.050	mg/L	2019-09-20	
Potassium, total	**1.31**	0.10	mg/L	2019-09-20	
Selenium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Silicon, total	**3.9**	1.0	mg/L	2019-09-20	
Silver, total	< 0.000050	0.000050	mg/L	2019-09-20	
Sodium, total	**2.44**	0.10	mg/L	2019-09-20	
Strontium, total	**0.256**	0.0010	mg/L	2019-09-20	
Sulfur, total	**27.5**	3.0	mg/L	2019-09-20	
Tellurium, total	< 0.00050	0.00050	mg/L	2019-09-20	
Thallium, total	< 0.000020	0.000020	mg/L	2019-09-20	
Thorium, total	< 0.00010	0.00010	mg/L	2019-09-20	
Tin, total	< 0.00020	0.00020	mg/L	2019-09-20	
Titanium, total	< 0.0050	0.0050	mg/L	2019-09-20	
Tungsten, total	< 0.0010	0.0010	mg/L	2019-09-20	
Uranium, total	**0.00114**	0.000020	mg/L	2019-09-20	
Vanadium, total	< 0.0010	0.0010	mg/L	2019-09-20	
Zinc, total	< 0.0040	0.0040	mg/L	2019-09-20	
Zirconium, total	< 0.00010	0.00010	mg/L	2019-09-20	

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Analyte	Result	RL	Units	Analyzed	Qualifier

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
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Analysis Description	Method Ref.	Technique	Location
Alkalinity in Water	SM 2320 B* (2017)	Titration with H2SO4	Kelowna
Ammonia, Total in Water	SM 4500-NH3 G* (2017)	Automated Colorimetry (Phenate)	Kelowna
Ammonia-N, Un-Ionized in Water	CCME WSER	CALC: Total NH3-N x 1/(1+10E((0.0902+(2730/(273.2+Temp)))-pH))	N/A
Anions in Water	SM 4110 B (2017)	Ion Chromatography	Kelowna
BTEX in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	Richmond
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	Kelowna
Cyanide, WAD in Water	ASTM D6888-09	Flow Injection with Gas Diffusion and Amperometry	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	Richmond
Hardness in Water	SM 2340 B (2017)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Nitrate+Nitrite in Water	SM 4500-NO3- F (2017)	Automated Colorimetry (Cadmium Reduction)	Kelowna
Nitrite in Water	SM 4500-NO2 B (2017)	Colorimetry	Richmond
Oil and Grease, Total in Water	EPA 1664A*	Liquid-Liquid Extraction with Hexane	Richmond
pH in Water	SM 4500-H+ B (2017)	Electrometry	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2017)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	Richmond
Solids, Total Dissolved in Water	SM 1030 E (2017)	SM 1030 E (2011)	N/A
Solids, Total Suspended in Water	SM 2540 D* (2017)	Gravimetry (Dried at 103-105C)	Kelowna
Total Metals in Water	EPA 200.2* / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
VH in Water	EPA 5030B / BCMOE VHw	Purge&Trap / Gas Chromatography (GC-FID)	Richmond
VPHw in Water	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)	N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

APPENDIX 1: SUPPORTING INFORMATION

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Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
mg/L	Milligrams per litre
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
CCME	Canadian Council of Ministers of the Environment, Canada-wide Standard Reference Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:bshaw@caro.ca

APPENDIX 2: QUALITY CONTROL RESULTS

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B9I1132										
Blank (B9I1132-BLK1)				Prepared: 2019-09-13, Analyzed: 2019-09-13						
Nitrite (as N)	< 0.0050	0.0050	mg/L							
LCS (B9I1132-BS1)				Prepared: 2019-09-13, Analyzed: 2019-09-13						
Nitrite (as N)	0.0509	0.0050	mg/L	0.0500		102	90-110			
Duplicate (B9I1132-DUP1)		**Source: 9091305-02**		Prepared: 2019-09-13, Analyzed: 2019-09-13						
Nitrite (as N)	< 0.0050	0.0050	mg/L		< 0.0050				10	
Matrix Spike (B9I1132-MS1)		**Source: 9091305-08**		Prepared: 2019-09-13, Analyzed: 2019-09-13						
Nitrite (as N)	0.0402	0.0050	mg/L	0.0500	< 0.0050	80	80-120			
Anions, Batch B9I1219										
Blank (B9I1219-BLK1)				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Nitrate+Nitrite (as N)	< 0.0050	0.0050	mg/L							
Blank (B9I1219-BLK2)				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Nitrate+Nitrite (as N)	< 0.0050	0.0050	mg/L							
LCS (B9I1219-BS1)				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Nitrate+Nitrite (as N)	0.506	0.0050	mg/L	0.500		101	91-108			
LCS (B9I1219-BS2)				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Nitrate+Nitrite (as N)	0.514	0.0050	mg/L	0.500		103	91-108			
Anions, Batch B9I1224										
Blank (B9I1224-BLK1)				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B9I1224-BS1)				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Chloride	16.0	0.10	mg/L	16.0		100	90-110			
Fluoride	3.85	0.10	mg/L	4.00		96	88-108			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B9I1224, Continued										
LCS (B9I1224-BS1), Continued				Prepared: 2019-09-15, Analyzed: 2019-09-15						
Sulfate	15.8	1.0	mg/L	16.0		99	90-110			
BCMOE Aggregate Hydrocarbons, Batch B9I1370										
Blank (B9I1370-BLK1)				Prepared: 2019-09-17, Analyzed: 2019-09-17						
VHw (6-10)	< 100	100	µg/L							
LCS (B9I1370-BS2)				Prepared: 2019-09-17, Analyzed: 2019-09-17						
VHw (6-10)	2750	100	µg/L	3280		84	70-130			
BCMOE Aggregate Hydrocarbons, Batch B9I1614										
Blank (B9I1614-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-21						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*452*		*µg/L*	444		*102*	*60-126*			
LCS (B9I1614-BS2)				Prepared: 2019-09-19, Analyzed: 2019-09-21						
EPHw10-19	15700	250	µg/L	15400		102	70-117			
EPHw19-32	22000	250	µg/L	22100		99	70-113			
Surrogate: 2-Methylnonane (EPH/F2-4)	*431*		*µg/L*	444		*97*	*60-126*			
Dissolved Metals, Batch B9I1501										
Blank (B9I1501-BLK1)				Prepared: 2019-09-20, Analyzed: 2019-09-20						
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0050	0.0050	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Yukon Government - Water Resources
PROJECT Eagle Gold
WORK ORDER 9091305
REPORTED 2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B9I1501, Continued										
Blank (B9I1501-BLK1), Continued				Prepared: 2019-09-20, Analyzed: 2019-09-20						
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0010	0.0010	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B9I1501-BS1)				Prepared: 2019-09-20, Analyzed: 2019-09-20						
Lithium, dissolved	0.0197	0.00010	mg/L	0.0199		99	80-120			
Aluminum, dissolved	0.0212	0.0050	mg/L	0.0200		106	80-120			
Antimony, dissolved	0.0217	0.00020	mg/L	0.0200		108	80-120			
Arsenic, dissolved	0.0176	0.00050	mg/L	0.0200		88	80-120			
Barium, dissolved	0.0207	0.0050	mg/L	0.0200		104	80-120			
Beryllium, dissolved	0.0189	0.00010	mg/L	0.0200		94	80-120			
Bismuth, dissolved	0.0215	0.00010	mg/L	0.0200		107	80-120			
Boron, dissolved	0.0184	0.0050	mg/L	0.0200		92	80-120			
Cadmium, dissolved	0.0201	0.000010	mg/L	0.0200		100	80-120			
Calcium, dissolved	2.11	0.20	mg/L	2.02		105	80-120			
Chromium, dissolved	0.0183	0.00050	mg/L	0.0200		91	80-120			
Cobalt, dissolved	0.0188	0.00010	mg/L	0.0200		94	80-120			
Copper, dissolved	0.0202	0.00040	mg/L	0.0200		101	80-120			
Iron, dissolved	1.78	0.010	mg/L	2.02		88	80-120			
Lead, dissolved	0.0214	0.00020	mg/L	0.0200		107	80-120			
Magnesium, dissolved	1.89	0.010	mg/L	2.02		93	80-120			
Manganese, dissolved	0.0200	0.00020	mg/L	0.0200		100	80-120			
Molybdenum, dissolved	0.0197	0.00010	mg/L	0.0200		98	80-120			
Nickel, dissolved	0.0191	0.00040	mg/L	0.0200		96	80-120			
Phosphorus, dissolved	1.77	0.050	mg/L	2.00		88	80-120			
Potassium, dissolved	1.77	0.10	mg/L	2.02		88	80-120			
Selenium, dissolved	0.0178	0.00050	mg/L	0.0200		89	80-120			
Silicon, dissolved	1.8	1.0	mg/L	2.00		91	80-120			
Silver, dissolved	0.0208	0.000050	mg/L	0.0200		104	80-120			
Sodium, dissolved	1.86	0.10	mg/L	2.02		92	80-120			
Strontium, dissolved	0.0193	0.0010	mg/L	0.0200		96	80-120			
Sulfur, dissolved	4.0	3.0	mg/L	5.00		80	80-120			
Tellurium, dissolved	0.0192	0.00050	mg/L	0.0200		96	80-120			
Thallium, dissolved	0.0214	0.000020	mg/L	0.0200		107	80-120			
Thorium, dissolved	0.0217	0.00010	mg/L	0.0200		109	80-120			
Tin, dissolved	0.0209	0.00020	mg/L	0.0200		104	80-120			
Titanium, dissolved	0.0177	0.0050	mg/L	0.0200		88	80-120			
Tungsten, dissolved	0.0207	0.0010	mg/L	0.0200		104	80-120			
Uranium, dissolved	0.0217	0.000020	mg/L	0.0200		108	80-120			
Vanadium, dissolved	0.0180	0.0010	mg/L	0.0200		90	80-120			
Zinc, dissolved	0.0202	0.0040	mg/L	0.0200		101	80-120			
Zirconium, dissolved	0.0193	0.00010	mg/L	0.0200		96	80-120			
Duplicate (B9I1501-DUP1)		**Source: 9091305-02**		Prepared: 2019-09-20, Analyzed: 2019-09-20						
Lithium, dissolved	0.0438	0.00010	mg/L		0.0438			< 1	14	
Aluminum, dissolved	0.0090	0.0050	mg/L		0.0064				11	
Antimony, dissolved	0.00218	0.00020	mg/L		0.00231			6	20	
Arsenic, dissolved	0.0122	0.00050	mg/L		0.0124			2	8	
Barium, dissolved	0.0271	0.0050	mg/L		0.0271			< 1	7	
Beryllium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				14	
Bismuth, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Yukon Government - Water Resources
PROJECT Eagle Gold

WORK ORDER 9091305
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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B9I1501, Continued										
Duplicate (B9I1501-DUP1), Continued		**Source: 9091305-02**		Prepared: 2019-09-20, Analyzed: 2019-09-20						
Boron, dissolved	0.0106	0.0050	mg/L		0.0082				13	
Cadmium, dissolved	0.000035	0.000010	mg/L		0.000046				20	
Calcium, dissolved	24.1	0.20	mg/L		24.4			1	8	
Chromium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				14	
Cobalt, dissolved	0.00104	0.00010	mg/L		0.00105			2	10	
Copper, dissolved	0.00229	0.00040	mg/L		0.00387			51	20	RPD
Iron, dissolved	0.035	0.010	mg/L		0.035				14	
Lead, dissolved	< 0.00020	0.00020	mg/L		0.00059				20	
Magnesium, dissolved	10.6	0.010	mg/L		10.7			1	6	
Manganese, dissolved	0.152	0.00020	mg/L		0.152			< 1	9	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				19	
Nickel, dissolved	0.0100	0.00040	mg/L		0.00984			2	20	
Phosphorus, dissolved	< 0.050	0.050	mg/L		< 0.050				14	
Potassium, dissolved	2.38	0.10	mg/L		2.39			< 1	8	
Selenium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Silicon, dissolved	10.3	1.0	mg/L		10.5			2	12	
Silver, dissolved	< 0.000050	0.000050	mg/L		< 0.000050				20	
Sodium, dissolved	2.38	0.10	mg/L		2.43			2	6	
Strontium, dissolved	0.141	0.0010	mg/L		0.142			< 1	6	
Sulfur, dissolved	21.3	3.0	mg/L		21.3			< 1	20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020	mg/L		< 0.000020				13	
Thorium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Tin, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Uranium, dissolved	0.000085	0.000020	mg/L		0.000079				14	
Vanadium, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Zinc, dissolved	0.0188	0.0040	mg/L		0.0178				11	
Zirconium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Reference (B9I1501-SRM1)				Prepared: 2019-09-20, Analyzed: 2019-09-20						
Lithium, dissolved	0.102	0.00010	mg/L	0.100		102	77-127			
Aluminum, dissolved	0.222	0.0050	mg/L	0.235		95	79-114			
Antimony, dissolved	0.0461	0.00020	mg/L	0.0431		107	89-123			
Arsenic, dissolved	0.404	0.00050	mg/L	0.423		96	87-113			
Barium, dissolved	3.29	0.0050	mg/L	3.30		100	85-114			
Beryllium, dissolved	0.208	0.00010	mg/L	0.209		99	79-122			
Boron, dissolved	1.49	0.0050	mg/L	1.65		90	79-117			
Cadmium, dissolved	0.230	0.000010	mg/L	0.221		104	89-112			
Calcium, dissolved	7.79	0.20	mg/L	7.72		101	85-120			
Chromium, dissolved	0.416	0.00050	mg/L	0.434		96	87-113			
Cobalt, dissolved	0.122	0.00010	mg/L	0.124		99	90-117			
Copper, dissolved	0.825	0.00040	mg/L	0.815		101	90-115			
Iron, dissolved	1.18	0.010	mg/L	1.27		93	86-112			
Lead, dissolved	0.120	0.00020	mg/L	0.110		109	90-113			
Magnesium, dissolved	6.48	0.010	mg/L	6.59		98	84-116			
Manganese, dissolved	0.343	0.00020	mg/L	0.342		100	85-113			
Molybdenum, dissolved	0.421	0.00010	mg/L	0.404		104	87-112			
Nickel, dissolved	0.824	0.00040	mg/L	0.835		99	90-114			
Phosphorus, dissolved	0.463	0.050	mg/L	0.499		93	74-119			
Potassium, dissolved	2.70	0.10	mg/L	2.88		94	78-119			
Selenium, dissolved	0.0318	0.00050	mg/L	0.0324		98	89-123			
Sodium, dissolved	17.0	0.10	mg/L	18.0		95	81-117			
Strontium, dissolved	0.904	0.0010	mg/L	0.935		97	82-111			
Thallium, dissolved	0.0427	0.000020	mg/L	0.0385		111	90-113			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Yukon Government - Water Resources
PROJECT Eagle Gold

WORK ORDER 9091305
REPORTED 2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B9I1501, Continued										
Reference (B9I1501-SRM1), Continued				Prepared: 2019-09-20, Analyzed: 2019-09-20						
Uranium, dissolved	0.271	0.000020	mg/L	0.258		105	87-113			
Vanadium, dissolved	0.804	0.0010	mg/L	0.873		92	85-110			
Zinc, dissolved	0.808	0.0040	mg/L	0.848		95	88-114			
Dissolved Metals, Batch B9I1566										
Blank (B9I1566-BLK1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B9I1566-BLK2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Reference (B9I1566-SRM1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Mercury, dissolved	0.00448	0.000010	mg/L	0.00489		92	80-120			
Reference (B9I1566-SRM2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Mercury, dissolved	0.00461	0.000010	mg/L	0.00489		94	80-120			
Dissolved Metals, Batch B9I1658										
Blank (B9I1658-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B9I1658-BLK2)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Reference (B9I1658-SRM1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Mercury, dissolved	0.00544	0.000010	mg/L	0.00489		111	80-120			
Reference (B9I1658-SRM2)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Mercury, dissolved	0.00460	0.000010	mg/L	0.00489		94	80-120			
General Parameters, Batch B9I1211										
Blank (B9I1211-BLK1)				Prepared: 2019-09-15, Analyzed: 2019-09-16						
Phosphorus, Total (as P)	< 0.0020	0.0020	mg/L							
Blank (B9I1211-BLK3)				Prepared: 2019-09-15, Analyzed: 2019-09-16						
Phosphorus, Total (as P)	< 0.0020	0.0020	mg/L							
LCS (B9I1211-BS1)				Prepared: 2019-09-15, Analyzed: 2019-09-16						
Phosphorus, Total (as P)	0.112	0.0020	mg/L	0.100		112	85-115			
LCS (B9I1211-BS3)				Prepared: 2019-09-15, Analyzed: 2019-09-16						
Phosphorus, Total (as P)	0.113	0.0020	mg/L	0.100		113	85-115			
General Parameters, Batch B9I1234										
Blank (B9I1234-BLK1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B9I1234, Continued										
Blank (B9I1234-BLK2)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B9I1234-BLK3)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
LCS (B9I1234-BS1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	100	1.0	mg/L	100		100	80-120			
LCS (B9I1234-BS2)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	100	1.0	mg/L	100		100	80-120			
LCS (B9I1234-BS3)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	101	1.0	mg/L	100		101	80-120			
LCS (B9I1234-BS4)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Conductivity (EC)	1380	2.0	µS/cm	1410		98	95-104			
LCS (B9I1234-BS5)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Conductivity (EC)	1380	2.0	µS/cm	1410		98	95-104			
LCS (B9I1234-BS6)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-104			
Duplicate (B9I1234-DUP2)		**Source: 9091305-02**		Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	49.6	1.0	mg/L		50.2			1	10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L		< 1.0				10	
Alkalinity, Bicarbonate (as CaCO3)	49.6	1.0	mg/L		50.2			1	10	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L		< 1.0				10	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L		< 1.0				10	
Conductivity (EC)	229	2.0	µS/cm		226			1	5	
pH	6.96	0.10	pH units		6.92			< 1	4	
Reference (B9I1234-SRM1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B9I1234-SRM2)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
pH	7.01	0.10	pH units	7.01		100	98-102			
Reference (B9I1234-SRM3)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
pH	7.01	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B9I1298										
Blank (B9I1298-BLK1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Cyanide, Weak Acid Dissociable	< 0.0020	0.0020	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B9I1298, Continued										
LCS (B9I1298-BS1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Cyanide, Weak Acid Dissociable	0.0185	0.0020	mg/L	0.0200		93	85-115			
LCS Dup (B9I1298-BSD1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Cyanide, Weak Acid Dissociable	0.0183	0.0020	mg/L	0.0200		92	85-115	1	10	
General Parameters, Batch B9I1303										
Blank (B9I1303-BLK1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B9I1303-BLK2)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B9I1303-BLK3)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
LCS (B9I1303-BS1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	98.5	1.0	mg/L	100		98	80-120			
LCS (B9I1303-BS2)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	101	1.0	mg/L	100		101	80-120			
LCS (B9I1303-BS3)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Alkalinity, Total (as CaCO3)	98.4	1.0	mg/L	100		98	80-120			
LCS (B9I1303-BS4)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Conductivity (EC)	1400	2.0	µS/cm	1410		99	95-104			
LCS (B9I1303-BS5)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Conductivity (EC)	1370	2.0	µS/cm	1410		97	95-104			
LCS (B9I1303-BS6)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
Conductivity (EC)	1380	2.0	µS/cm	1410		98	95-104			
Reference (B9I1303-SRM1)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
pH	7.01	0.10	pH units	7.01		100	98-102			
Reference (B9I1303-SRM2)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
pH	7.01	0.10	pH units	7.01		100	98-102			
Reference (B9I1303-SRM3)				Prepared: 2019-09-16, Analyzed: 2019-09-16						
pH	7.02	0.10	pH units	7.01		100	98-102			

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REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B9I1303, Continued										
General Parameters, Batch B9I1427										
Blank (B9I1427-BLK1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	< 0.020	0.020	mg/L							
Blank (B9I1427-BLK2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	< 0.020	0.020	mg/L							
Blank (B9I1427-BLK3)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	< 0.020	0.020	mg/L							
Blank (B9I1427-BLK4)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	< 0.020	0.020	mg/L							
LCS (B9I1427-BS1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	1.07	0.020	mg/L	1.00		107	90-115			
LCS (B9I1427-BS2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	1.06	0.020	mg/L	1.00		106	90-115			
LCS (B9I1427-BS3)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	1.04	0.020	mg/L	1.00		104	90-115			
LCS (B9I1427-BS4)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Ammonia, Total (as N)	1.03	0.020	mg/L	1.00		103	90-115			
General Parameters, Batch B9I1460										
Blank (B9I1460-BLK1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Cyanide, Total	< 0.0020	0.0020	mg/L							
Blank (B9I1460-BLK2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Cyanide, Total	< 0.0020	0.0020	mg/L							
LCS (B9I1460-BS1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Cyanide, Total	0.0214	0.0020	mg/L	0.0200		107	82-120			
LCS (B9I1460-BS2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Cyanide, Total	0.0225	0.0020	mg/L	0.0200		113	82-120			
LCS Dup (B9I1460-BSD1)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Cyanide, Total	0.0215	0.0020	mg/L	0.0200		107	82-120	< 1	10	
LCS Dup (B9I1460-BSD2)				Prepared: 2019-09-18, Analyzed: 2019-09-18						
Cyanide, Total	0.0212	0.0020	mg/L	0.0200		106	82-120	6	10	
General Parameters, Batch B9I1513										
Blank (B9I1513-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Solids, Total Suspended	< 2.0	2.0	mg/L							
Blank (B9I1513-BLK2)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B9I1513-BS1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Solids, Total Suspended	94.0	10.0	mg/L	100		94	85-115			

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REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B9I1513, Continued										
LCS (B9I1513-BS2)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Solids, Total Suspended	97.0	10.0	mg/L	100		97	85-115			
General Parameters, Batch B9I1538										
Blank (B9I1538-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Oil & Grease, Total	< 2.0	2.0	mg/L							
LCS (B9I1538-BS1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Oil & Grease, Total	33.5	2.0	mg/L	40.0		84	71-106			
LCS Dup (B9I1538-BSD1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Oil & Grease, Total	32.0	2.0	mg/L	40.0		80	71-106	5	20	
General Parameters, Batch B9I1593										
Blank (B9I1593-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Solids, Total Suspended	< 1.0	1.0	mg/L							
LCS (B9I1593-BS1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Solids, Total Suspended	98.0	10.0	mg/L	100		98	85-115			
General Parameters, Batch B9I1602										
Blank (B9I1602-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Cyanide, Total	< 0.0020	0.0020	mg/L							
LCS (B9I1602-BS1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Cyanide, Total	0.0189	0.0020	mg/L	0.0200		94	82-120			
LCS Dup (B9I1602-BSD1)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Cyanide, Total	0.0194	0.0020	mg/L	0.0200		97	82-120	3	10	
Polycyclic Aromatic Hydrocarbons (PAH), Batch B9I1614										
Blank (B9I1614-BLK1)				Prepared: 2019-09-19, Analyzed: 2019-09-20						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							

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REPORTED TO Yukon Government - Water Resources
PROJECT Eagle Gold
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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B9I1614, Continued										
Blank (B9I1614-BLK1), Continued				Prepared: 2019-09-19, Analyzed: 2019-09-20						
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*3.78*		*µg/L*	4.38		*86*	*50-140*			
Surrogate: Naphthalene-d8	*5.72*		*µg/L*	4.47		*128*	*50-140*			
Surrogate: Perylene-d12	*5.52*		*µg/L*	4.47		*124*	*50-140*			
LCS (B9I1614-BS1)				Prepared: 2019-09-19, Analyzed: 2019-09-20						
Acenaphthene	4.39	0.050	µg/L	4.44		99	55-137			
Acenaphthylene	4.37	0.200	µg/L	4.44		98	53-140			
Acridine	3.12	0.050	µg/L	4.24		73	50-120			
Anthracene	5.02	0.010	µg/L	4.44		113	64-130			
Benz(a)anthracene	4.36	0.010	µg/L	4.44		98	57-140			
Benzo(a)pyrene	4.70	0.010	µg/L	4.44		106	63-133			
Benzo(b+j)fluoranthene	8.21	0.050	µg/L	8.89		92	60-129			
Benzo(g,h,i)perylene	4.68	0.050	µg/L	4.44		105	52-139			
Benzo(k)fluoranthene	3.94	0.050	µg/L	4.44		89	50-138			
2-Chloronaphthalene	3.24	0.100	µg/L	4.44		73	50-139			
Chrysene	4.73	0.050	µg/L	4.44		106	59-140			
Dibenz(a,h)anthracene	4.29	0.010	µg/L	4.44		97	53-136			
Fluoranthene	5.14	0.030	µg/L	4.44		116	67-135			
Fluorene	3.99	0.050	µg/L	4.44		90	57-134			
Indeno(1,2,3-cd)pyrene	3.63	0.050	µg/L	4.44		82	52-129			
1-Methylnaphthalene	3.95	0.100	µg/L	4.44		89	50-140			
2-Methylnaphthalene	4.39	0.100	µg/L	4.44		99	50-140			
Naphthalene	4.57	0.200	µg/L	4.44		103	50-140			
Phenanthrene	4.08	0.100	µg/L	4.44		92	61-134			
Pyrene	4.94	0.020	µg/L	4.44		111	66-131			
Quinoline	5.58	0.050	µg/L	4.31		129	50-140			
Surrogate: Acridine-d9	*3.16*		*µg/L*	4.38		*72*	*50-140*			
Surrogate: Naphthalene-d8	*4.60*		*µg/L*	4.47		*103*	*50-140*			
Surrogate: Perylene-d12	*4.43*		*µg/L*	4.47		*99*	*50-140*			
LCS Dup (B9I1614-BSD1)				Prepared: 2019-09-19, Analyzed: 2019-09-20						
Acenaphthene	5.01	0.050	µg/L	4.44		113	55-137	13	18	
Acenaphthylene	4.84	0.200	µg/L	4.44		109	53-140	10	20	
Acridine	3.79	0.050	µg/L	4.24		89	50-120	19	30	
Anthracene	4.82	0.010	µg/L	4.44		108	64-130	4	15	
Benz(a)anthracene	4.32	0.010	µg/L	4.44		97	57-140	< 1	25	
Benzo(a)pyrene	5.42	0.010	µg/L	4.44		122	63-133	14	18	
Benzo(b+j)fluoranthene	9.64	0.050	µg/L	8.89		108	60-129	16	17	
Benzo(g,h,i)perylene	4.66	0.050	µg/L	4.44		105	52-139	< 1	22	
Benzo(k)fluoranthene	4.55	0.050	µg/L	4.44		102	50-138	14	26	
2-Chloronaphthalene	3.93	0.100	µg/L	4.44		88	50-139	19	23	
Chrysene	3.88	0.050	µg/L	4.44		87	59-140	20	23	
Dibenz(a,h)anthracene	4.66	0.010	µg/L	4.44		105	53-136	8	21	
Fluoranthene	5.86	0.030	µg/L	4.44		132	67-135	13	18	
Fluorene	4.39	0.050	µg/L	4.44		99	57-134	9	18	
Indeno(1,2,3-cd)pyrene	3.73	0.050	µg/L	4.44		84	52-129	3	21	
1-Methylnaphthalene	4.85	0.100	µg/L	4.44		109	50-140	20	20	
2-Methylnaphthalene	5.16	0.100	µg/L	4.44		116	50-140	16	21	
Naphthalene	5.58	0.200	µg/L	4.44		126	50-140	20	22	
Phenanthrene	4.15	0.100	µg/L	4.44		93	61-134	2	17	
Pyrene	5.64	0.020	µg/L	4.44		127	66-131	13	19	
Quinoline	5.65	0.050	µg/L	4.31		131	50-140	1	14	
Surrogate: Acridine-d9	*3.80*		*µg/L*	4.38		*87*	*50-140*			
Surrogate: Naphthalene-d8	*5.60*		*µg/L*	4.47		*125*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Yukon Government - Water Resources
PROJECT Eagle Gold
WORK ORDER 9091305
REPORTED 2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B9I1614, Continued										
LCS Dup (B9I1614-BSD1), Continued				Prepared: 2019-09-19, Analyzed: 2019-09-20						
Surrogate: Perylene-d12	*5.12*		*µg/L*	4.47		*115*	*50-140*			
Total Metals, Batch B9I1454										
Blank (B9I1454-BLK1)				Prepared: 2019-09-18, Analyzed: 2019-09-20						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0050	0.0050	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0010	0.0010	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0010	0.0010	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B9I1454-BS1)				Prepared: 2019-09-18, Analyzed: 2019-09-20						
Aluminum, total	0.0220	0.0050	mg/L	0.0200		110	80-120			
Antimony, total	0.0230	0.00020	mg/L	0.0200		115	80-120			
Arsenic, total	0.0193	0.00050	mg/L	0.0200		96	80-120			
Barium, total	0.0217	0.0050	mg/L	0.0200		108	80-120			
Beryllium, total	0.0200	0.00010	mg/L	0.0200		100	80-120			
Bismuth, total	0.0213	0.00010	mg/L	0.0200		107	80-120			
Boron, total	0.0170	0.0050	mg/L	0.0200		85	80-120			
Cadmium, total	0.0219	0.000010	mg/L	0.0200		109	80-120			
Calcium, total	2.05	0.20	mg/L	2.02		101	80-120			
Chromium, total	0.0194	0.00050	mg/L	0.0200		97	80-120			
Cobalt, total	0.0201	0.00010	mg/L	0.0200		100	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B9I1454, Continued										
LCS (B9I1454-BS1), Continued				Prepared: 2019-09-18, Analyzed: 2019-09-20						
Copper, total	0.0208	0.00040	mg/L	0.0200		104	80-120			
Iron, total	1.83	0.010	mg/L	2.02		91	80-120			
Lead, total	0.0213	0.00020	mg/L	0.0200		106	80-120			
Lithium, total	0.0206	0.00010	mg/L	0.0199		103	80-120			
Magnesium, total	2.04	0.010	mg/L	2.02		101	80-120			
Manganese, total	0.0206	0.00020	mg/L	0.0200		103	80-120			
Molybdenum, total	0.0205	0.00010	mg/L	0.0200		103	80-120			
Nickel, total	0.0201	0.00040	mg/L	0.0200		101	80-120			
Phosphorus, total	1.90	0.050	mg/L	2.00		95	80-120			
Potassium, total	1.93	0.10	mg/L	2.02		96	80-120			
Selenium, total	0.0204	0.00050	mg/L	0.0200		102	80-120			
Silicon, total	2.1	1.0	mg/L	2.00		103	80-120			
Silver, total	0.0225	0.000050	mg/L	0.0200		113	80-120			
Sodium, total	2.01	0.10	mg/L	2.02		100	80-120			
Strontium, total	0.0209	0.0010	mg/L	0.0200		104	80-120			
Sulfur, total	5.1	3.0	mg/L	5.00		102	80-120			
Tellurium, total	0.0218	0.00050	mg/L	0.0200		109	80-120			
Thallium, total	0.0212	0.000020	mg/L	0.0200		106	80-120			
Thorium, total	0.0211	0.00010	mg/L	0.0200		105	80-120			
Tin, total	0.0215	0.00020	mg/L	0.0200		107	80-120			
Titanium, total	0.0194	0.0050	mg/L	0.0200		97	80-120			
Tungsten, total	0.0214	0.0010	mg/L	0.0200		107	80-120			
Uranium, total	0.0212	0.000020	mg/L	0.0200		106	80-120			
Vanadium, total	0.0191	0.0010	mg/L	0.0200		96	80-120			
Zinc, total	0.0212	0.0040	mg/L	0.0200		106	80-120			
Zirconium, total	0.0200	0.00010	mg/L	0.0200		100	80-120			
Duplicate (B9I1454-DUP1)		**Source: 9091305-02**		Prepared: 2019-09-18, Analyzed: 2019-09-23						
Aluminum, total	0.0113	0.0050	mg/L		0.0095				20	
Antimony, total	0.00246	0.00020	mg/L		0.00243			1	20	
Arsenic, total	0.0159	0.00050	mg/L		0.0158			< 1	15	
Barium, total	0.0282	0.0050	mg/L		0.0281			< 1	9	
Beryllium, total	< 0.00010	0.00010	mg/L		< 0.00010				16	
Bismuth, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Boron, total	0.0176	0.0050	mg/L		0.0147				20	
Cadmium, total	0.000040	0.000010	mg/L		0.000048				20	
Calcium, total	27.3	0.20	mg/L		25.1			9	12	
Chromium, total	< 0.00050	0.00050	mg/L		< 0.00050				12	
Cobalt, total	0.00117	0.00010	mg/L		0.00117			< 1	13	
Copper, total	0.00090	0.00040	mg/L		< 0.00040				20	
Iron, total	0.105	0.010	mg/L		0.100			4	18	
Lead, total	< 0.00020	0.00020	mg/L		< 0.00020				20	
Lithium, total	0.0570	0.00010	mg/L		0.0527			8	19	
Magnesium, total	12.7	0.010	mg/L		12.7			< 1	10	
Manganese, total	0.166	0.00020	mg/L		0.166			< 1	13	
Molybdenum, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Nickel, total	0.0110	0.00040	mg/L		0.0109			< 1	20	
Phosphorus, total	< 0.050	0.050	mg/L		< 0.050				20	
Potassium, total	2.86	0.10	mg/L		2.86			< 1	13	
Selenium, total	< 0.00050	0.00050	mg/L		< 0.00050				20	
Silicon, total	11.5	1.0	mg/L		11.5			< 1	11	
Silver, total	< 0.000050	0.000050	mg/L		< 0.000050				18	
Sodium, total	2.93	0.10	mg/L		2.88			2	10	
Strontium, total	0.165	0.0010	mg/L		0.165			< 1	9	
Sulfur, total	25.2	3.0	mg/L		26.3			4	20	
Tellurium, total	< 0.00050	0.00050	mg/L		< 0.00050				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B9I1454, Continued										
Duplicate (B9I1454-DUP1), Continued				**Source: 9091305-02**	Prepared: 2019-09-18, Analyzed: 2019-09-23					
Thallium, total	< 0.000020	0.000020	mg/L		< 0.000020				20	
Thorium, total	< 0.00010	0.00010	mg/L		< 0.00010				18	
Tin, total	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, total	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, total	< 0.0010	0.0010	mg/L		< 0.0010				20	
Uranium, total	0.000073	0.000020	mg/L		0.000072				14	
Vanadium, total	0.0014	0.0010	mg/L		0.0013				17	
Zinc, total	0.0196	0.0040	mg/L		0.0181				8	
Zirconium, total	0.00010	0.00010	mg/L		< 0.00010				20	
Reference (B9I1454-SRM1)					Prepared: 2019-09-18, Analyzed: 2019-09-20					
Aluminum, total	0.285	0.0050	mg/L	0.303		94	82-114			
Antimony, total	0.0517	0.00020	mg/L	0.0511		101	88-115			
Arsenic, total	0.112	0.00050	mg/L	0.118		95	88-111			
Barium, total	0.831	0.0050	mg/L	0.823		101	83-110			
Beryllium, total	0.0486	0.00010	mg/L	0.0496		98	80-119			
Boron, total	2.86	0.0050	mg/L	3.45		83	80-118			
Cadmium, total	0.0516	0.000010	mg/L	0.0495		104	90-110			
Calcium, total	11.1	0.20	mg/L	11.6		95	85-113			
Chromium, total	0.233	0.00050	mg/L	0.250		93	88-111			
Cobalt, total	0.0376	0.00010	mg/L	0.0377		100	90-114			
Copper, total	0.499	0.00040	mg/L	0.486		103	90-117			
Iron, total	0.451	0.010	mg/L	0.488		93	90-116			
Lead, total	0.204	0.00020	mg/L	0.204		100	90-110			
Lithium, total	0.396	0.00010	mg/L	0.403		98	79-118			
Magnesium, total	3.81	0.010	mg/L	3.79		100	88-116			
Manganese, total	0.109	0.00020	mg/L	0.109		100	88-108			
Molybdenum, total	0.198	0.00010	mg/L	0.198		100	88-110			
Nickel, total	0.243	0.00040	mg/L	0.249		98	90-112			
Phosphorus, total	0.222	0.050	mg/L	0.227		98	72-118			
Potassium, total	6.99	0.10	mg/L	7.21		97	87-116			
Selenium, total	0.125	0.00050	mg/L	0.121		103	90-122			
Sodium, total	7.47	0.10	mg/L	7.54		99	86-118			
Strontium, total	0.379	0.0010	mg/L	0.375		101	86-110			
Thallium, total	0.0832	0.000020	mg/L	0.0805		103	90-113			
Uranium, total	0.0309	0.000020	mg/L	0.0306		101	88-112			
Vanadium, total	0.355	0.0010	mg/L	0.386		92	87-110			
Zinc, total	2.34	0.0040	mg/L	2.49		94	90-113			
Total Metals, Batch B9I1598										
Blank (B9I1598-BLK1)					Prepared: 2019-09-19, Analyzed: 2019-09-19					
Mercury, total	< 0.000010	0.000010	mg/L							
Blank (B9I1598-BLK2)					Prepared: 2019-09-19, Analyzed: 2019-09-19					
Mercury, total	< 0.000010	0.000010	mg/L							
Duplicate (B9I1598-DUP2)				**Source: 9091305-02**	Prepared: 2019-09-19, Analyzed: 2019-09-19					
Mercury, total	< 0.000010	0.000010	mg/L		< 0.000010				20	
Matrix Spike (B9I1598-MS2)				**Source: 9091305-03**	Prepared: 2019-09-19, Analyzed: 2019-09-19					
Mercury, total	0.000259	0.000010	mg/L	0.000250	< 0.000010	103	70-130			
Reference (B9I1598-SRM1)					Prepared: 2019-09-19, Analyzed: 2019-09-19					
Mercury, total	0.00431	0.000010	mg/L	0.00489		88	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Yukon Government - Water Resources	**WORK ORDER**	9091305
PROJECT	Eagle Gold	**REPORTED**	2019-10-20 16:04

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B9I1598, Continued										
Reference (B9I1598-SRM2)				Prepared: 2019-09-19, Analyzed: 2019-09-19						
Mercury, total	0.00516	0.000010	mg/L	0.00489		106	80-120			
Volatile Organic Compounds (VOC), Batch B9I1370										
Blank (B9I1370-BLK1)				Prepared: 2019-09-17, Analyzed: 2019-09-17						
Benzene	< 0.5	0.5	µg/L							
Ethylbenzene	< 1.0	1.0	µg/L							
Methyl tert-butyl ether	< 1.0	1.0	µg/L							
Styrene	< 1.0	1.0	µg/L							
Toluene	< 1.0	1.0	µg/L							
Xylenes (total)	< 2.0	2.0	µg/L							
Surrogate: Toluene-d8	*26.2*		*µg/L*	26.2		*100*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*30.7*		*µg/L*	25.0		*123*	*70-130*			
LCS (B9I1370-BS1)				Prepared: 2019-09-17, Analyzed: 2019-09-17						
Benzene	21.6	0.5	µg/L	20.1		108	70-130			
Ethylbenzene	23.6	1.0	µg/L	20.1		117	70-130			
Methyl tert-butyl ether	14.2	1.0	µg/L	20.0		71	70-130			
Styrene	24.8	1.0	µg/L	20.1		123	70-130			
Toluene	24.2	1.0	µg/L	20.1		120	70-130			
Xylenes (total)	75.4	2.0	µg/L	60.1		126	70-130			
Surrogate: Toluene-d8	*26.4*		*µg/L*	26.2		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*29.1*		*µg/L*	25.0		*116*	*70-130*			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).

BROOKS APPLIED LABS
18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • info@brooksapplied.com

October 8, 2019

CARO Analytical Services
ATTN: Bryan Shaw
102- 3677 Highway 97N
Kelowna, BC V1X 5C3
bshaw@caro.ca

RE: Project CAR-KL1904

Dear Mr. Shaw,

On September 17, 2019 Brooks Applied Labs (BAL) received four (4) aqueous samples. The samples were logged-in for arsenic speciation analysis according to the chain-of-custody forms. The samples were filtered in the field by the client. All samples were received and stored according to BAL SOPs and EPA methodology.

The samples were received in a cooler with an elevated temperature of 20.7°C. BAL strongly recommends that samples for arsenic speciation be stored below 6°C to slow reaction kinetics and prevent possible species conversion. As a result, all results have been qualified (**H**) to reflect this storage temperature outlier.

Arsenic Speciation Quantitation by IC-ICP-CRC-MS

The arsenic speciation analysis was performed by ion chromatography coupled to an inductively coupled plasma collision reaction cell mass spectrometer (IC-ICP-CRC-MS). Prior to analysis, an aliquot of each sample was filtered with a syringe filter (0.45-µm) and injected directly into a sealed autosampler vial. No further sample preparation was performed as any chemical alteration of a sample may shift the equilibrium of the system, resulting in changes in speciation ratios.

Arsenic speciation has been defined contractually as arsenite [As(III)], arsenate [As(V)], dimethyl arsenic acid [DMAs], monomethylarsonic acid [MMAs], and inorganic arsenic [As(Inorg)]. Inorganic arsenic has been operationally defined as the sum of As(III) and As(V).

In instances when either the native sample concentration was non-detectable (reported as less than or equal to the MDL) and/or the corresponding matrix duplicate (DUP) result was also non-detectable, the RPD between the two values was not calculated (**N/C**).

Aside from the qualifiers mentioned above, all other data was reported without qualification and all associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report. Please feel free to contact us if you have any questions regarding this report.

Sincerely,

Amanda Royal
Senior Project Manager
Brooks Applied Labs
amanda@brooksapplied.com

Jeremy Thompson
Project Coordinator
Brooks Applied Labs
jeremyT@brooksapplied.com

Report Information

Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/>. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

AR	as received	**MS**	matrix spike
BAL	Brooks Applied Labs	**MSD**	matrix spike duplicate
BLK	method blank	**ND**	non-detect
BS	blank spike	**NR**	non-reportable
CAL	calibration standard	**N/C**	not calculated
CCB	continuing calibration blank	**PS**	post preparation spike
CCV	continuing calibration verification	**REC**	percent recovery
COC	chain of custody record	**RPD**	relative percent difference
D	dissolved fraction	**SCV**	secondary calibration verification
DUP	duplicate	**SOP**	standard operating procedure
IBL	instrument blank	**SRM**	standard reference material
ICV	initial calibration verification	**T**	total fraction
MDL	method detection limit	**TR**	total recoverable fraction
MRL	method reporting limit		

Definition of Data Qualifiers

(Effective 9/23/09)

E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Please see narrative for explanation.
J	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
J-1	Estimated value. A full explanation is presented in the narrative.
M	Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
N	Spike recovery was not within acceptance criteria. Please see narrative for explanation.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.

Project ID: CAR-KL1904
PM: Amanda Royal

Client PM: Bryan Shaw
Client Project: CAR-KL1904

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
2019T27-03 (LDSP-5)	1938019-01	Water	Sample	09/10/2019	09/17/2019
2019T27-06 (W-4)	1938019-02	Water	Sample	09/10/2019	09/17/2019
2019T27-07 (W-1)	1938019-03	Water	Sample	09/10/2019	09/17/2019
2019T27-09 (W-99)	1938019-04	Water	Sample	09/11/2019	09/17/2019

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
As(III)	Water	SOP BAL-4100	09/23/2019	09/24/2019	B192678	1901219
As(Inorg)	Water	Calc	09/23/2019	09/24/2019	[CALC]	N/A
As(V)	Water	SOP BAL-4100	09/23/2019	09/24/2019	B192678	1901219
DMAs	Water	SOP BAL-4100	09/23/2019	09/24/2019	B192678	1901219
MMAs	Water	SOP BAL-4100	09/23/2019	09/24/2019	B192678	1901219

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
2019T27-03 (LDSP-5)										
1938019-01	As(III)	Water	D	1.36	H	0.043	0.216	µg/L	B192678	1901219
1938019-01	As(Inorg)	Water	D	58.3	H	0.043	0.216	µg/L	[CALC]	N/A
1938019-01	As(V)	Water	D	57.0	H	0.043	0.216	µg/L	B192678	1901219
1938019-01	DMAs	Water	D	0.205	H J	0.054	0.227	µg/L	B192678	1901219
1938019-01	MMAs	Water	D	≤ 0.097	H U	0.097	0.248	µg/L	B192678	1901219
2019T27-06 (W-4)										
1938019-02	As(III)	Water	D	0.582	H	0.043	0.216	µg/L	B192678	1901219
1938019-02	As(Inorg)	Water	D	1.95	H	0.043	0.216	µg/L	[CALC]	N/A
1938019-02	As(V)	Water	D	1.37	H	0.043	0.216	µg/L	B192678	1901219
1938019-02	DMAs	Water	D	≤ 0.054	H U	0.054	0.227	µg/L	B192678	1901219
1938019-02	MMAs	Water	D	≤ 0.097	H U	0.097	0.248	µg/L	B192678	1901219
2019T27-07 (W-1)										
1938019-03	As(III)	Water	D	0.629	H	0.043	0.216	µg/L	B192678	1901219
1938019-03	As(Inorg)	Water	D	29.4	H	0.043	0.216	µg/L	[CALC]	N/A
1938019-03	As(V)	Water	D	28.7	H	0.043	0.216	µg/L	B192678	1901219
1938019-03	DMAs	Water	D	≤ 0.054	H U	0.054	0.227	µg/L	B192678	1901219
1938019-03	MMAs	Water	D	≤ 0.097	H U	0.097	0.248	µg/L	B192678	1901219
2019T27-09 (W-99)										
1938019-04	As(III)	Water	D	1.33	H	0.043	0.216	µg/L	B192678	1901219
1938019-04	As(Inorg)	Water	D	2.69	H	0.043	0.216	µg/L	[CALC]	N/A
1938019-04	As(V)	Water	D	1.36	H	0.043	0.216	µg/L	B192678	1901219
1938019-04	DMAs	Water	D	≤ 0.054	H U	0.054	0.227	µg/L	B192678	1901219
1938019-04	MMAs	Water	D	≤ 0.097	H U	0.097	0.248	µg/L	B192678	1901219

Project ID: CAR-KL1904
PM: Amanda Royal

Client PM: Bryan Shaw
Client Project: CAR-KL1904

Accuracy & Precision Summary

Batch: B192678
Lab Matrix: Water
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B192678-BS1	**Blank Spike, (1936017)**						
	As(III)		5.000	5.220	µg/L	104% 75-125	
	As(V)		5.000	5.086	µg/L	102% 75-125	
	DMAs		5.210	5.166	µg/L	99% 75-125	
B192678-BS2	**Blank Spike, (1911013)**						
	MMAs		4.870	4.864	µg/L	100% 75-125	
B192678-DUP1	**Duplicate, (1938019-04)**						
	As(III)	1.325		1.292	µg/L		3% 25
	As(V)	1.363		1.275	µg/L		7% 25
	DMAs	ND		ND	µg/L		N/C 25
	MMAs	ND		ND	µg/L		N/C 25
B192678-MS1	**Matrix Spike, (1938019-04)**						
	As(III)	1.325	11.12	12.75	µg/L	103% 75-125	
	As(V)	1.363	11.23	12.57	µg/L	100% 75-125	
	DMAs	ND	11.02	11.28	µg/L	102% 75-125	
	MMAs	ND	10.80	11.04	µg/L	102% 75-125	
B192678-MSD1	**Matrix Spike Duplicate, (1938019-04)**						
	As(III)	1.325	11.12	12.50	µg/L	100% 75-125	2% 25
	As(V)	1.363	11.23	12.71	µg/L	101% 75-125	1% 25
	DMAs	ND	11.02	11.14	µg/L	101% 75-125	1% 25
	MMAs	ND	10.80	11.09	µg/L	103% 75-125	0.4% 25

Project ID: CAR-KL1904
PM: Amanda Royal

Client PM: Bryan Shaw
Client Project: CAR-KL1904

Method Blanks & Reporting Limits

Batch: B192678
Matrix: Water
Method: SOP BAL-4100
Analyte: As(III)

Sample	Result	Units
B192678-BLK1	0.00	µg/L
B192678-BLK2	0.00	µg/L
B192678-BLK3	0.00	µg/L
B192678-BLK4	0.00	µg/L

Average: 0.000
Limit: 0.020

MDL: 0.004
MRL: 0.020

Analyte: As(V)

Sample	Result	Units
B192678-BLK1	0.001	µg/L
B192678-BLK2	0.001	µg/L
B192678-BLK3	0.0008	µg/L
B192678-BLK4	0.0009	µg/L

Average: 0.001
Limit: 0.020

MDL: 0.004
MRL: 0.020

Analyte: DMAs

Sample	Result	Units
B192678-BLK1	0.00	µg/L
B192678-BLK2	0.00	µg/L
B192678-BLK3	0.00	µg/L
B192678-BLK4	0.00	µg/L

Average: 0.000
Limit: 0.021

MDL: 0.005
MRL: 0.021

Project ID: CAR-KL1904
PM: Amanda Royal

Client PM: Bryan Shaw
Client Project: CAR-KL1904

Method Blanks & Reporting Limits

Analyte: MMAs

Sample	Result	Units
B192678-BLK1	0.00	µg/L
B192678-BLK2	0.00	µg/L
B192678-BLK3	0.00	µg/L
B192678-BLK4	0.00	µg/L

Average: 0.000
Limit: 0.023

MDL: 0.009
MRL: 0.023

Project ID: CAR-KL1904
PM: Amanda Royal

Client PM: Bryan Shaw
Client Project: CAR-KL1904

Sample Containers

Lab ID: 1938019-01 **Report Matrix:** Water **Collected:** 09/10/2019
Sample: 2019T27-03 (LDSP-5) **Sample Type:** Sample **Received:** 09/17/2019

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle HDPE As-SP	125mL	19-0115	10mL EDTA (PP)	1934035	5	Cooler - 1938019

Lab ID: 1938019-02 **Report Matrix:** Water **Collected:** 09/10/2019
Sample: 2019T27-06 (W-4) **Sample Type:** Sample **Received:** 09/17/2019

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle HDPE As-SP	125mL	19-0115	10mL EDTA (PP)	1934035	5	Cooler - 1938019

Lab ID: 1938019-03 **Report Matrix:** Water **Collected:** 09/10/2019
Sample: 2019T27-07 (W-1) **Sample Type:** Sample **Received:** 09/17/2019

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle HDPE As-SP	125mL	19-0115	10mL EDTA (PP)	1934035	5	Cooler - 1938019

Lab ID: 1938019-04 **Report Matrix:** Water **Collected:** 09/11/2019
Sample: 2019T27-09 (W-99) **Sample Type:** Sample **Received:** 09/17/2019

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle HDPE As-SP	125mL	19-0115	10mL EDTA (PP)	1934035	5	Cooler - 1938019

Project ID: CAR-KL1904
PM: Amanda Royal

Client PM: Bryan Shaw
Client Project: CAR-KL1904

Shipping Containers

Cooler - 1938019

Received: September 17, 2019 12:35
Tracking No: 1Z 662 F4X 04 8124 0899 via UPS
Coolant Type: Blue Ice
Temperature: 20.7 °C

Description: Cooler
Damaged in transit? No
Returned to client? No
Comments: IR#19

Custody seals present? Yes
Custody seals intact? Yes
COC present? Yes

Chain-of-Custody Form

BROOKS APPLIED LABS

Ship samples to:
18804 North Creek Parkway, Suite 100
Bothell, WA 98011

For BAL use only
Received by: _____ Date: 9/17/19
Work Order ID: _____ Time: 1235
Project ID: _____

Client: CARO Analytical Services
Contact: Bryan Shaw
Client Project ID: Yukon Government
Samples Collected By: NICOLE NOVODVORSKY

PO Number: _____
Phone: 604 207 5110
Email: bshaw@caro.ca

Mailing Address: 4011 Viking Way # 110
Richmond BC V6V 2K9
Email Receipt Confirmation? (Yes) No
BAL PM: _____

Requested TAT (business days)
- [x] 20 (standard)
- [ ] 15*
- [ ] 10*
- [ ] 5*
- [ ] Other ____

*Surcharges may apply to expedited TATs

	Sample ID	Collection: Date	Collection: Time	Client Sample Info: Matrix Type	Number of Containers	Field Filtered? (Yes/No)	Preservation Type HCl / HNO_3 / Other	BAL Analyses Required: Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As Species (specify) (InOrg(III,V), MMA, DMA + unknown)	Se Species (specify) Se(IV), Se(VI), SeCN, Uknown	Filtration	Other (specify)	Other (specify)	Comments: Specify Here
1	20191227-03 (LDSP-S)	20190910	14:41	H_2O	1	Y					✓					Please also include unknown As species
2	20191227-06 (W-4)	20190910	16:22	H_2O	1	Y					✓					
3	20191227-07 (W-1)	20190910	16:58	H_2O	1	Y					✓					
4	20191227-09 (W-99)	20190911	10:38	H_2O	1	Y					✓					
5																
6																
7																
8																
9																
10																
	Trip Blank															

Relinquished By: Nicole Novodvorsky	Date: Sep 12/19	Time: 13:30	Relinquished By:	Date:	Time:
Received By:	Date:	Time:	Total Number of Packages:		

Page ____ of ____ List Hazardous Contaminants: _____

CARO ANALYTICAL SERVICES
Caring About Results, Obviously.

CARO.ca 1-888-311-8846
#110-4011 Viking Way, Richmond, BC V6V 2K9
#1(V1X 5C3
17: T5S 1H7
#1(V5G 4X4

CARO BC COC, Rev 2019-01

CHAIN OF CUSTODY RECORD

COC# B 80857 PAGE 1 OF 2

9091305

RELINQUISHED BY: Nicole Novodvorsky DATE: Sep 12/19 TIME: 13:30
RECEIVED BY: Novex TM DATE: 09/13/19 TIME: 11:00

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☑
Rush: 1 Day* ☐ 2 Day* ☐ 3 Day* ☐
Other* ☐
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Show on Report
Canadian Drinking Water Quality ☐ BC WQG ☐ BC HWR ☐
BC CSR Soil: WL ☐ AL ☐ PL ☐ RL-LD ☐ RL-HD ☐ CL ☐ I ☐
BC CSR Water: AW ☐ IW ☐ LW ☐ DW ☐
CCME: ☐ Other: ☐

REPORT TO:
COMPANY: Gov't of Yukon, Dept of Env.
ADDRESS: Water Resources Branch
(V-310) Box 2703, Whitehorse, YT Y1A 2C6
CONTACT: NICOLE NOVODVORSKY
TEL/FAX: 867-689-1426
DELIVERY METHOD: EMAIL ☒ ONLINE ☐ OTHER* ☐
DATA FORMAT: EXCEL ☒ WATERTRAX ☐ ESdat ☐ EQuIS ☐ BC EMS ☐ OTHER* ☒ PDF
EMAIL 1: nicole.novodvorsky@gov.yk.ca
EMAIL 2:
EMAIL 3:

INVOICE TO: ☐ Same as Report To
ADDRESS: Same
CONTACT: JOHN RYDER
TEL/FAX: 867-456-6538
DELIVERY METHOD: EMAIL ☑ ONLINE ☐ OTHER* ☐
EMAIL 1: john.ryder@gov.yk.ca
EMAIL 2: nicole.novodvorsky@gov.yk.ca
EMAIL 3:
PO #:

PROJECT NUMBER / INFO: EAGLE GOLD

A: Biohazard B: Cyanide C: PCBs D: Asbestos E: Heavy Metals F: Flammable G: Strong Odour H: High Contamination I: Other (please specify*)

** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, please check here: ☐

SAMPLED BY:

9091305

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	CONTAINER QTY	SAMPLING: DATE YYYY-MM-DD	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)
2019T27-01 (SEP)		X			7	20190910	13:31		X	X	
2019T27-02 (HLF-UMV)		X			8	20190910	14:05		X	X	
2019T27-03 (LDSP-5)		X			8	20190910	14:41		X	X	
2019T27-04 (W-22)		X			8	20190910	15:00		X	X	
2019T27-05 (W-24)		X			8	20190910	15:38		X	X	
2019T27-06 (W-4)		X			8	20190910	16:22		X	X	
2019T27-07 (W-1)		X			8	20190910	16:58		X	X	
2019T27-08 (W-25)		X			8	20190911	10:01		X	X	
2019T27-09 (W-99)		X			11	20190911	10:38		X	X	
2019T27-10 (W-99)		X			8	20190911	10:46		X	X	Replicate
2019T27-11 (QAQC)		X			8	20190911	10:38		X	X	QTB
2019T27-12 (QAQC)		X			8	20190911	10:40		X	X	QFB

ANALYSES REQUESTED:

CLIENT SAMPLE ID:	BTEX ☒ VPH ☒	VOC ☐ VPH ☐	EPH ☒ PHC F2-F4 ☐	PAH ☒ L/HEPH ☒	PHENOLS Chlorinated ☐ Non-Chlor. ☐	PCB ☐ GLYCOLS ☐ HAA ☐ THM ☐	PESTICIDES ☐ ACID HERBICIDES ☐	PHC F1 ☐	METALS - WATER TOTAL Hg ☑	METALS - WATER DISSOLVED Hg ☑	METALS - SOIL (SALM) ☐ inc. pH ☐	pH ☑ EC ☑ ALK ☑ ANIONS ☑	TSS ☑ VSS ☐ TDS ☑	BOD ☐ COD ☐ TOG ☐ MOG ☐	TN ☐ NH3 ☐ TKN ☐	FECAL COLIFORMS ☐ HPC ☐	TOTAL COLIFORMS ☐ E.coli ☐	ESSENTIAL DRINKING WATER PACKAGE	~~ASBESTOS~~ OIL & GREASE	CYANIDE - WAD + SAD	SULPHATE	Total + unionized Ammonia	Total Phosphorus.	Nitrate, Nitrite	HOLD	POSSIBLE SAMPLE HAZARD CODE(S)
2019T27-01 (SEP)	X		X	X					X	X		X	X						X		X	X	X	X		
2019T27-02 (HLF-UMV)									X	X		X	X							X	X	X		X		
2019T27-03 (LDSP-5)									X	X		X	X							X	X	X		X		
2019T27-04 (W-22)									X	X		X	X							X	X	X		X		
2019T27-05 (W-24)									X	X		X	X							X	X	X		X		
2019T27-06 (W-4)									X	X		X	X							X	X	X		X		
2019T27-07 (W-1)									X	X		X	X							X	X	X		X		
2019T27-08 (W-25)									X	X		X	X							X	X	X		X		
2019T27-09 (W-99)	X		X	X					X	X		X	X							X	X	X		X		
2019T27-10 (W-99)									X	X		X	X							X	X	X		X		
2019T27-11 (QAQC)									X	X		X	X							X	X	X		X		
2019T27-12 (QAQC)									X	X		X	X							X	X	X		X		

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION:
30 Days (default) ☐
60 Days ☐ 90 Days ☐
Other (surcharges will apply):

*** OTHER INSTRUCTIONS:**
Speciated Arsenic also included.

If you would like to talk to a real live Scientist about your project requirements, please check here: ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): 5.8 ICE: Y ☑ N ☐
COOLER 2 (°C): 7.1 ICE: Y ☑ N ☐
COOLER 3 (°C): ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐

CARO ANALYTICAL SERVICES
Caring About Results, Obviously.

CARO.ca **1-888-311-8846**
#110-4011 Viking Way, Richmond, BC V6V 2K9
#102-3677 Highway 97N, Kelowna, BC V1X 5C3
17225 109 Avenue NW, Edmonton, AB T5S 1H7
#108-4475 Wayburne Drive, Burnaby, BC V5G 4X4

CHAIN OF CUSTODY RECORD

CARO BC COC, Rev 2019-01

COC# B 80858 PAGE 2 OF 2

RELINQUISHED BY:	DATE: Sep 12/19	RECEIVED BY:	DATE:
Nicole Novodvorsky	TIME: 13:30		TIME:

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☑
Rush: 1 Day* ☐ 2 Day* ☐ 3 Day* ☐
Other* ____
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Show on Report
Canadian Drinking Water Quality ☐ BC WQG ☐ BC HWR ☐
BC CSR Soil: WL ☐ AL ☐ PL ☐ RL-LD ☐ RL-HD ☐ CL ☐ I ☐
BC CSR Water: AW ☐ IW ☐ LW ☐ DW ☐
CCME: ____ Other: ____

REPORT TO:
COMPANY: Gov of Yukon
ADDRESS: Water Resources (V-310)
Box 2703, Whitehorse, YT, Y1A 2C6
CONTACT: NICOLE NOVODVORSKY
TEL/FAX: 867-689-1426
DELIVERY METHOD: EMAIL ☒ ONLINE ☐ OTHER* ☐
DATA FORMAT: EXCEL ☒ WATERTRAX ☐ ESdat ☐ EQuIS ☐ BC EMS ☐ OTHER* ☒
EMAIL 1: nicole.novodvorsky@gov.yk.ca
EMAIL 2:
EMAIL 3:

INVOICE TO: SAME AS REPORT TO ☐
COMPANY: same
ADDRESS: same
CONTACT: john ryder
TEL/FAX: 867-456-6538
DELIVERY METHOD: EMAIL ☑ ONLINE ☐ OTHER* ☐
EMAIL 1: john.ryder@gov.yk.ca
EMAIL 2: nicole.novodvorsky@gov.yk.ca
EMAIL 3:
PO #:

PROJECT NUMBER / INFO: EAGLE GOLD

A: Biohazard D: Asbestos G: Strong Odour
B: Cyanide E: Heavy Metals H: High Contamination
C: PCBs F: Flammable I: Other (please specify*)

** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, please check here: ☐

SAMPLED BY: ____

ANALYSES REQUESTED:

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	CONTAINER QTY	SAMPLING: DATE YYYY-MM-DD	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)	BTEX ☒ VPH ☒ PHC F1 ☐	VOC ☐ VPH ☐	EPH ☒ PHC F2-F4 ☐	PAH ☒ L/HEPH ☒	PHENOLS Chlorinated ☐ Non-Chlor. ☐	PCB ☐ GLYCOLS ☐ HAA ☐ THM ☐	PESTICIDES ☐ ACID HERBICIDES ☐	METALS - WATER TOTAL Hg ☐	METALS - WATER DISSOLVED Hg ☐	METALS - SOIL (SALM) ☐ inc. pH ☐	pH ☐ EC ☐ ALK ☐ ANIONS ☐	TSS ☐ VSS ☐ TDS ☐	BOD ☐ COD ☐ TOG ☐ MOG ☐	TN ☐ NH3 ☐ TKN ☐	FECAL COLIFORMS ☐ HPC ☐	TOTAL COLIFORMS ☐ E.coli ☐	ESSENTIAL DRINKING WATER PACKAGE	ASBESTOS	CYANIDE - SAD + WAD	SULPHATE	Total + unionized Ammonia	Nitrate, Nitrite	HOLD	POSSIBLE SAMPLE HAZARD CODE(S)
2019T27-13 (W-6)		X			8	20190911	11:26		X	X		X			X				X	X		X	X							X	X	X	X		

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION:
30 Days (default) ☐
60 Days ☐ 90 Days ☐
Other (surcharges will apply): ____

*** OTHER INSTRUCTIONS:**

If you would like to talk to a real live Scientist about your project requirements, please check here: ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): ____ ICE: Y ☐ N ☐
COOLER 2 (°C): ____ ICE: Y ☐ N ☐
COOLER 3 (°C): ____ ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐