

Coffee Gold Project

2019 Goldcorp Environmental Placer Report: Halfway Placer Group

FINAL

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Author	Kate Titterington Jasmin Dobson
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Prepared by:
Goldcorp Kaminak Ltd.
A subsidiary of Newmont Goldcorp Inc.
166 Titanium Way, Suite 201
Whitehorse YT, Canada, Y1A 0G1

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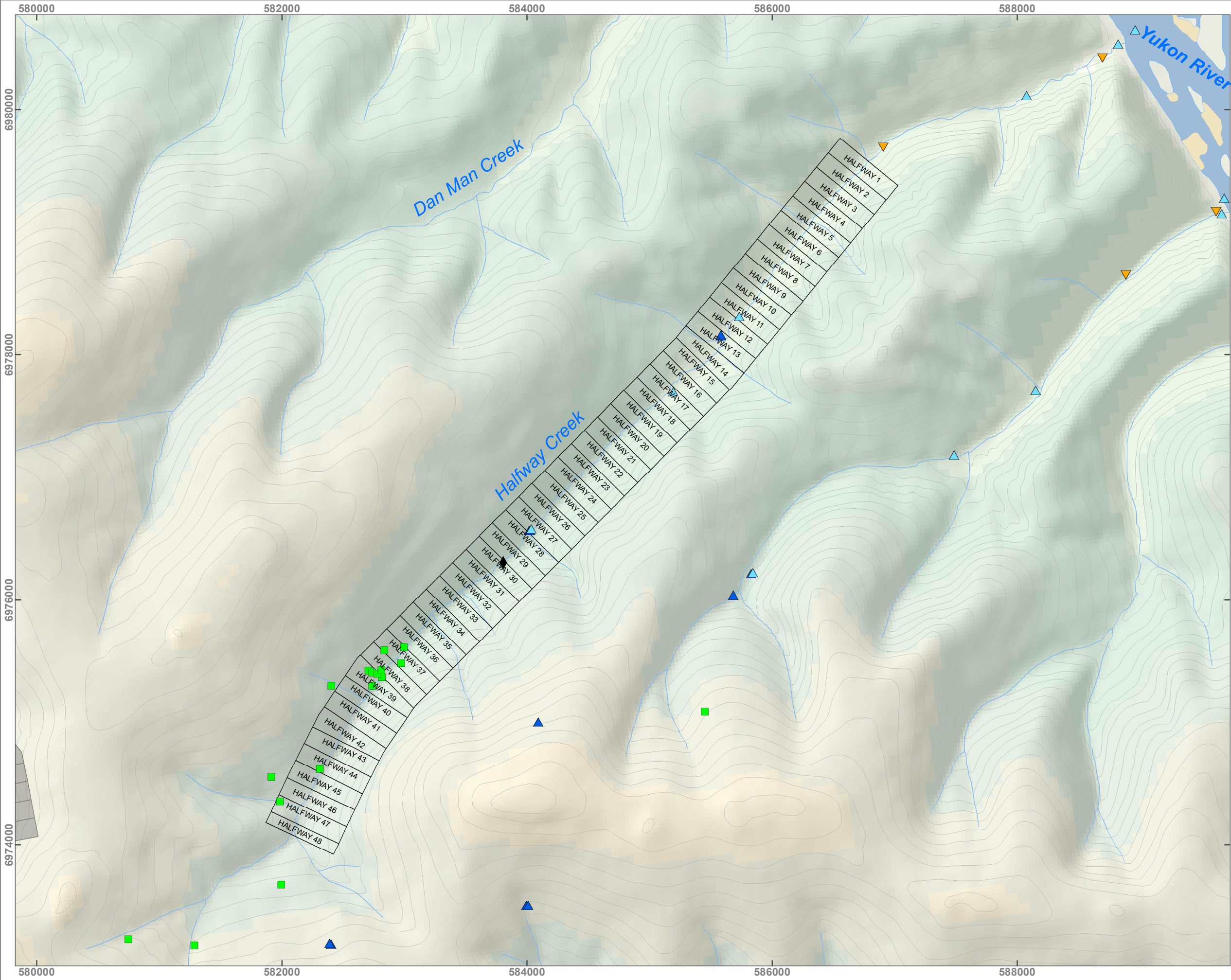
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1.0 INTRODUCTION

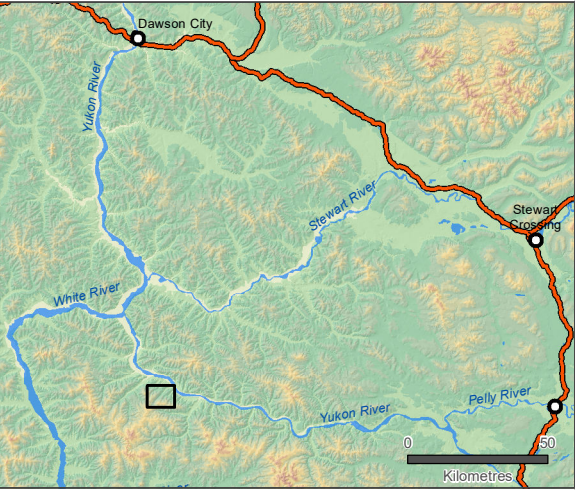
Newmont Goldcorp Inc. has grouped placer claims in Halfway Creek, a tributary to the Yukon River in west-central Yukon. Significant baseline environmental work has been undertaken in the area of Halfway Creek over the past several years related to fisheries and biological monitoring, water quality, and groundwater. This report summarizes the baseline environmental work on the Halfway Creek Group Placer Claims from July 25th, 2019 to September 25th, 2019. The objective of the baseline environmental work is to document and understand environmental conditions on the placer claims prior to undertaking placer activity. The data from the environmental baseline studies can be used to monitor impacts in the environment during construction, operation and closure of any placer activity.

2.0 STUDY AREA

Halfway Creek Placer Group claims (Appendix A) are located in the Whitehorse Mining District, within the traditional territory of the Tr'ondëk Hwëch'in and the asserted traditional territory of the White River First Nation. Halfway Creek flows northwest into the Yukon River between the confluences of the White and the Pelly Rivers. More specifically, Halfway Creek is located between the Coffee and Independence creeks. The placer claim stretches over an approximately 7.3 km section of Halfway Creek, beginning approximately 2.3 km upstream of the confluence with the Yukon River and extending upstream (southwest) into the upper sections of Halfway Creek (Figure 1). The creek has a channel width of approximately 3 m and an average gradient 5-10% of within the claim area.

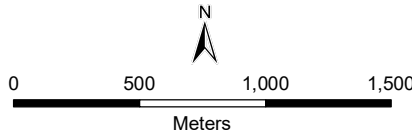


**HALFWAY Placer Claim Group
Enviromental Sampling Locations**



Legend

- ▲ Ground Water Quality Monitoring Stn.
- ▲ Surface Water Quality Monitoring Stn.
- ▼ Fisheries & Veg Sampling
- Remote Camera Locations
- ◆ Benthic Invertibrate Sampling
- Thermistor Locations
- Coffee/Latte Claim Group
- Other Placer Claims



NAD 1983 UTM Zone 7N
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Figure 1. Map of Halfway Creek Placer Group

3.0 GEOLOGY

3.1 REGIONAL GEOLOGY

The Coffee Project is located in the Yukon-Tanana Terrane (YTT), an accreted pericratonic rock sequence that covers a large portion of the Omineca Belt in the Yukon and extends into Alaska and British Columbia. The YTT underlies part of the Tintina gold belt and hosts multiple gold deposits, including the Sonora Gulch gold deposit, the Casino copper-gold-molybdenum porphyry, the Boulevard gold prospect, and the Golden Saddle gold deposit (Bennett et al., 2010; Allan et al., 2013). The YTT also hosts volcanogenic massive sulphide (VMS) and Mississippi Valley-type (MVT) deposits.

The YTT is composed of a basalt metasiliclastic sequence overlain by three subsequent volcanic arcs. The oldest component of the YTT is the Snowcap assemblage which was deposited prior to the Late Devonian, which consists of metasediments including psammitic schist, quartzite, and carbonaceous schist in addition to local amphibolite, greenstone, and ultramafic rocks (Piercey and Colpron, 2009). The Snowcap assemblage was deposited on the ancient Laurentian margin in a passive marine setting (Piercey and Colpron, 2009). The beginning of eastward subduction of the paleo-Pacific plate led to the formation of a magmatic arc at approximately 365 Ma (Colpron et al., 2006a). Rapid westward slab rollback caused significant extension, which initiated the formation of the Slide Mountain Ocean back-arc basin by approximately 360 Ma (Colpron et al., 2007). Arc volcanism during the Wolverine-Finlayson magmatic cycle (365-342 Ma) deposited submarine mafic and felsic volcanic rocks of the widespread Finlayson assemblage onto the Snowcap assemblage (Colpron et al., 2006b).

A reversal of subduction polarity during the Late Permian resulted in the western margin of Slide Mountain Ocean subducting beneath the evolving YTT (Erdmer et al., 1998). This subduction initiated a magmatic arc which was active from 269-253 Ma and formed the Klondike arc assemblage, the youngest member of the outboard YTT (Allan et al., 2013; Colpron et al., 2006a). Closure of the Slide Mountain Ocean by the Latest Permian to Early Jurassic led to the obduction of the YTT onto the Laurentian margin, causing a collisional event responsible for lower amphibolite facies metamorphism in the Coffee Project area (Beranek and Mortensen, 2011). In addition, collision resulted in the development of a low-angle transpositional foliation recognized throughout the YTT (S2 of Berman et al., 2007).

Following accretion of the YTT onto Laurentia, easterly subduction caused intra-arc shortening and compressional deformation. In the Klondike and the area of the Coffee Project, thrust fault-bounded

panels of Slide Mountain assemblage greenstone and serpentinized ultramafic occur within the tectonic stratigraphy of the YTT (Buitenhuis, 2014; MacKenzie et al., 2008).

These thrust-emplaced slices are generally less than 100 m in thickness, dip to the southwest, and persist for tens of kilometres in some areas (MacKenzie and Craw, 2010 and 2012). The emplacement of these slices is contemporaneous with northeast-vergent, open to tight folding dated between 195 and 187 Ma (Berman et al., 2007).

Beginning in the early- to mid-Cretaceous, localized rapid uplift and exhumation occurred throughout the YTT in Yukon and Alaska, including the Dawson Range (McCausland et al., 2006; Dusel-Bacon et al., 2002; Gabrielese and Yorath, 1991). Extension and unroofing of the rocks of the Dawson Range was accompanied by the emplacement of the Coffee Creek granite and Dawson Range batholith (~110-90 Ma; McKenzie et al., 2013; Wainwright et al., 2011; Colpron et al., 2006; Mortensen, 1992). This localized extension and exhumation is recorded by an apparent age-resetting event observed in white mica in western Yukon-Tanana at roughly 90 Ma (Douglas et al., 2002), in rhenium-osmium dates in molybdenite (92.4 Ma), and U-Pb dates in monazite (92.5 Ma) from plutons in east-central Alaskan YTT (Selby et al., 2002). At the Coffee property, this extension resulted in the activation of the Coffee Creek fault system, a set of dextral strike-slip faults and associated north-to-northeast brittle faults interpreted as splays off of the regional Big Creek fault to the south-east (Sánchez et al., 2013; Johnston, 1999).

3.2 PROPERTY GEOLOGY

The Coffee Project area is underlain by a package of metamorphosed Paleozoic rocks of the YTT that was intruded by a large granitic body in the Late Cretaceous. The Paleozoic rock package consists of a mafic schistose to gneissic panel which overlies the Sulphur Creek orthogneiss. Both packages form the southwestern limb of a northwest-trending antiformal fold with limbs dipping shallowly to the northeast and southwest.

The schistose and gneissic mafic rock package comprises a thick panel of biotite (+ feldspar + quartz + muscovite ± carbonate) schist with rare lenses of amphibolite which overlies a panel of amphibolite and metagabbro with arc-derived geochemical signatures. Within the schistose panel, slices of 20 m thick serpentinized ultramafic are in tectonic contact with the surrounding rocks. This rock sequence overlies the augen orthogneiss. These rocks are in contact to the southwest with the 98.2 ± 1.3 Ma Coffee Creek

granite. Both the Paleozoic metamorphic rocks and Cretaceous granite are cut by intermediate to felsic dykes of andesitic to dacitic composition.

Due to only rare outcrop exposure on the property (< 5%), has been compiled from a combination of geological traverses, bedrock mapping, borehole data, soil geochemistry, and geophysics (magnetic and radiometric).

The magnesium number from soil samples ($Mg\# = Mg/(Mg+Fe)$) was used to discern mafic from felsic units with the granite being the most felsic, followed by the felsic gneiss. The mafic schist unit was further subdivided into felsic-intermediate schist, biotite schist, amphibolite, and ultramafic rocks.

4.0 SUMMARY OF PREVIOUS STUDIES

Extensive work has been completed on Halfway Creek in recent years. This report includes field survey results for Halfway Creek from 2019 monitoring, as well as a review of findings from previous years sampling for fisheries, water quality, terrestrial vegetation and wildlife.

4.1 FISHERIES

Past fish related studies completed on Halfway Creek were reviewed for information and summarized. This includes sampling effort, capture data and fish distribution within the placer claims and areas downstream that could be affected by placer activity (i.e. through changes in water quality, flows etc.). The fish and fish habitat related reports reviewed are outlined in Table 1..

Table 1. Summary of available information sources for fish and fish habitat in the Halfway Creek drainage.

Year	Data Summary	Agency	Report References
2018	Summer/Fall: salmon spawning surveys, fish sampling/habitat assessment.	EDI Environmental Dynamics (EDI)	EDI 2019
2017	Environmental DNA (eDNA) sampling for Arctic grayling and Chinook salmon. Fish sampling/habitat assessment, chlorophyll-a sampling, metals analysis of invertebrates and fish tissue.	EDI Environmental Dynamics (EDI)	EDI 2018a
2016	Winter: fish and fish habitat assessments, environmental DNA (eDNA) sampling for Arctic grayling and Chinook salmon and benthic invertebrate sampling for analysis of baseline metal levels.	EDI Environmental Dynamics (EDI)	EDI 2017a

Year	Data Summary	Agency	Report References
	Summer/fall: fish sampling/habitat assessments, chlorophyll-a sampling, metals analysis of invertebrates and fish tissue.		
2014, 2015	Fish and aquatic resources baseline report for the Coffee Project, including data on fish and fish habitat, benthic invertebrates, periphyton and stream sediments. Includes fish tissue sampling data and salmon spawning surveys.	Palmer Environmental Consulting Group (PECG)	PECG 2017
2013	Preliminary fish and fish habitat assessment for the Coffee Project baseline, including surveys of fish abundance, distribution and size/weight data. Salmon spawning surveys were conducted on lower Independence Creek, and the Yukon River.	Access Consulting Group (ACG)	ACG 2014
2001	Fish and fish habitat assessments and benthic invertebrate sampling in lower Coffee Creek; a salmon spawning survey was conducted on lower Coffee Creek and the Yukon River.	Laberge Environmental Services and White Mountain Consulting	Laberge and White Mountain 2002
2000	Fish and fish habitat assessments in lower Coffee Creek; a salmon spawning survey was conducted on lower Coffee Creek and the Yukon River.	White Mountain Environmental Consulting	White Mountain Environmental Consulting 2001

4.2 WATER QUALITY

Water quality information within the Halfway Creek Placer Group has been collected by Newmont Goldcorp staff and consultants since October 2010 and continues to present. Water chemistry in the creek is driven by varying proportions of melt-water surface runoff and groundwater inputs to surface flows (Lorax 2018). Halfway Creek is characterized by soft water (35 to 56 mg/L CaCO₃) and low levels of major ions during freshet periods. During low flows and associated high proportions of ground water inputs (especially in the winter), Halfway Creek is characterized by moderately hard to hard waters (ranging from 80 mg/L to ~200 mg/L) and increased levels of certain parameters, most notably uranium. For most parameters, mean monthly concentrations of total and dissolved trace elements are low (e.g., arsenic, antimony, cobalt, chromium, lead, mercury, nickel, selenium, and zinc) and generally fall below the CCME guidelines for the protection of aquatic life. However, dissolved aluminum is consistently observed to exceed the BCMOE guideline during periods of high flow, and the total copper concentrations periodically exceed the CCME guideline (BC MOE 2006, CCME 2007). The total uranium concentrations in Halfway Creek are generally elevated during the winter season, coinciding with baseflow conditions, and

seasonally exceed the CCME guideline (CCME 2007). The pH in mid and lower Halfway Creek remains relatively uniform throughout the year with values generally ranging between 7.0 and 8.0 (Lorax 2018). Unlike the dissolved ions, higher concentrations of Total Suspended Solids (TSS) in Halfway Creek coincide with the peak snowmelt months or during intense summer rainfall events; at most other flow periods of the year, TSS values are generally below 2.0 mg/L (Lorax 2018). Nutrient parameters are generally found in low concentrations in mid and lower Halfway Creek (Lorax 2018).

Groundwater sampling is conducted quarterly in the Halfway Creek Placer Group. This is executed by using several types of pumps due to the wide range of conditions, monitoring well installations (conventional, multilevel), well depths and well responses.

Groundwater samples are collected after the water level in the well and purge water field parameters stabilize. Field parameters are monitored with a multi-parameter probe (YSI Professional Plus) coupled to an in-line flow-through cell during groundwater purging. Field parameters are monitored to ensure collection of representative samples and to provide reliable field-based estimates of pH, specific conductance (SC), dissolved oxygen (DO), and oxidation-reduction potential (ORP). Westbay wells are sampled after purging 4 L, while very low yield wells are purged down to near the top of the well screen (or top of pump) and sampled during recovery. Frozen artesian wells are sampled after purging de-icing water and a minimum of 1.2 well volumes (volume of water inside the well casing and sand pack). Groundwater monitoring (sampling and water level measurements) is most efficiently executed using two sampling teams with two members per team. Each team has their own set of monitoring equipment.

There are two ground water wells located on Halfway Creek, within the placer group: MW15-04AZ and MW15-04WB (Figure 1).

4.3 TERRESTRIAL VEGETATION AND WILDLIFE

Vegetation: Halfway Creek is located within the Klondike Plateau Ecoregion. The valley bottom and adjacent slopes of Halfway Creek contain heavily forested habitats, with vegetation patterns that reflect the discontinuous distribution of permafrost throughout the region. Slopes along Halfway Creek are generally dominated by coniferous or mixed forests dominated by white spruce (*Picea glauca*), black spruce (*Picea mariana*), and/or Alaska birch (*Betula neoalaskana*), while stunted black spruce forests can be found on cold, north-facing slopes with poor drainage. Valley bottom habitats typically consist of white

spruce-dominated riparian forest or willow-dominated shrubby riparian communities. The north side of the creek also has several areas supporting younger, deciduous-dominated mixed wood stands, with evidence of recent burn activity in the area.

Wildlife: A variety of large and small carnivores are expected to occur in the claim area. Grizzly bears (*Ursus arctos*) are known to use a variety of habitats throughout the region, including those present at Halfway Creek, but densities in the area are considered low. Detailed information on black bear (*Ursus americanus*) and grey wolf (*Canis lupus*) populations are unknown but both are considered to be healthy and both species may occur in the claim area. Wolverine (*Gulo gulo*) also have potential to occur in the placer group area, but in low densities (EDI 2017c). Several other high-value furbearing species can be found in the area including Canada lynx (*Lynx canadensis*), American marten (*Martes americana*), red fox (*Vulpes vulpes*), American mink (*Neovision vison*), ermine (*Mustela erminea*), and least weasel (*Mustela nivalis*) (EDI 2017c, 2017d).

Aves: The forested habitats of Halfway Creek likely provide habitat for a number of raptor species, including several species of hawks and owls, as well as a variety of upland bird species, including game birds (grouse, ptarmigan), woodpeckers and passerines (songbirds). Shorebirds may also be found along the stream margins and riparian areas of Halfway Creek. Common upland bird species detected during breeding bird surveys in the boreal forest habitats around the nearby Coffee Gold Project included dark-eyed junco (*Junco hyemalis*), Swainson's thrush (*Catharus ustulatus*), white-winged crossbill (*Laxia leucoptera*), yellow-rumped warbler (*Setophaga coronata*), and American robin (*Turdus migratorius*) (EDI 2017b).

Several of the wildlife species that may be found within the Halfway Creek drainage are considered species at risk in Canada. The list includes species identified under the Canadian Species at Risk Act (SARA) or assessed as species of conservation concern by the Council on the Status of Endangered Wildlife in Canada (COSEWIC).

Existing information on terrestrial vegetation and wildlife was reviewed and summarized for the placer group area (Table 2).

Table 2. Summary of available information sources for terrestrial vegetation and wildlife near Halfway Creek.

Year	Data Summary	Agency	Report References
2018	Field studies on birds and mammals in the Coffee Gold Project area, including Halfway Creek. Specifically, methods and results of surveys for caribou, moose, thin-horn sheep, grizzly bears, raptors and other wildlife.	EDI Environmental Dynamics (EDI)	EDI 2019
2017	Field studies on birds and mammals in the Coffee Gold Project area, including Halfway Creek. Specifically, methods and results of surveys for caribou, moose, thin-horn sheep, grizzly bears, raptors and other wildlife.	EDI Environmental Dynamics (EDI)	EDI 2018b
2014-2016	Bird baseline report for the Coffee Gold Project area, including Halfway Creek. Includes methods and results of field surveys for raptors, waterfowl, game birds, passerines, and various other upland bird species, as well as habitat suitability modelling, and a review of existing information from Traditional Knowledge, regional studies, and other information sources.	EDI Environmental Dynamics (EDI)	EDI 2017b
2010-2016	Wildlife baseline report for the Coffee Gold Project, including the Halfway Creek area. Includes summary of results of field surveys, habitat modelling, and a review of existing information from Traditional Knowledge, regional studies, and other information sources.	EDI Environmental Dynamics (EDI)	EDI 2017c
2014-2016	Methods and results of field studies on mammals in the Coffee Gold Project area, including Halfway Creek. Specifically, surveys for caribou, moose, thin-horn sheep, grizzly bears, wolves, wolverine and other furbearers, bats, collared pika, and other small mammals.	EDI Environmental Dynamics (EDI)	EDI 2017d

Year	Data Summary	Agency	Report References
2014-2016	Vegetation baseline report for the Coffee Gold Project, including the upper sections of Halfway Creek. Describes the local vegetation communities, as well as the methods and results of specific vegetation surveys for rare plants, invasive plants, and trace metals.	EDI Environmental Dynamics (EDI)	EDI 2017e

5.0 2019 RESULTS AND DISCUSSION

5.1 FISHERIES

The 2019 fish sampling on Halfway Creek was conducted between July 8-12, and August 7-9, 2019. The objectives of fish sampling were to better understand fish distribution and usage in the mixing zone with the Yukon River, and in Halfway Creek.

During both the July and August field visit, the mixing zone area of the confluence between Halfway Creek and the Yukon River was sampled. During each sampling event, there were three seine hauls conducted, beginning at the mouth of Halfway Creek and continuing downstream on the Yukon River. The beach seine used was 10 m in length, 1.5 m deep and constructed of a 5 mm mesh, with buoyant float lines and submersible lead lines. Beach seine hauls were conducted with field crews of two members for a length of 10-15 m. Fish captured were enumerated, and a subset of ten fish per species had their length and weight taken from each seine haul. In addition to beach seining the mouth of Halfway Creek, sections of the creek were electrofished in both July and August in an effort to determine fish species presence and absence within the creek. Single pass, open site electrofishing was used in Halfway Creek with a Smith Root 12B POW electrofisher set at 300-400V, 50-60 Hz, and 20% duty cycle.

During the July visit electrofishing occurred at three sites. Sampling began 300 m upstream from the creek mouth (site HC0.3) and continued over a straight-line distance of 150 m upstream for 1,189 seconds. Another site 700 m from the creek mouth (HC0.7) was electrofished for 1,300 seconds over a straight-line distance of 150 m upstream. Lastly, electrofishing was conducted 1.1 km from the mouth of the creek (HC1.1), above a potential barrier to fish. Electrofishing occurred over 1,124 seconds and over a straight-line distance of 180 m. Water levels were higher during the August field visit and involved the same level of effort as the July electrofishing. Site HC0.3 was electrofished for 1,122 seconds and 150 m straight-line

distance; HC0.7 was electrofished for 936 seconds and 150 m straight-line distance; lastly, HC1.1 was electrofished for 956 seconds and 150 m straight-line distance.

5.1.1 RESULTS

The results from the Halfway creek mixing zone captured similar species in both the July and August sampling events (Table 3). The species captured included juvenile Chinook salmon, Arctic grayling, round whitefish, and slimy sculpin.

Table 3. Halfway Creek mixing zone results, July and August 2019.

Sampling Site	Sample Date	Sampling Methods	Fish Captured
HC_MZ1	July, 2019	Beach seining	37 juvenile Chinook salmon 6 Arctic grayling
HC_MZ2	July, 2019	Beach seining	26 juvenile Chinook salmon 1 round whitefish 4 slimy sculpin
HC_MZ3	July, 2019	Beach seining	6 juvenile Chinook salmon 2 round whitefish
HC_MZ1	August, 2019	Beach seining	19 juvenile Chinook salmon 12 Arctic grayling
HC_MZ2	August, 2019	Beach seining	1 juvenile Chinook salmon 3 Arctic grayling 1 round whitefish
HC_MZ3	August, 2019	Beach seining	3 juvenile Chinook salmon 42 Arctic grayling 1 round whitefish

Electrofishing on Halfway Creek captured fish during both the July and August sampling events. Both sites HC0.3 and HC0.7 captured Arctic grayling in July and August; additionally, juvenile Chinook were captured during the August sampling at HC0.3 (Table 4). There were no fish captured above the barrier at HC1.1, although Arctic grayling were observed directly below it in July.

Table 4. Halfway Creek electrofishing results, July and August 2019.

Sampling Site	Sample Date	Sampling Methods	Total Sampling Effort	Fish Captured
HC0.3	July, 2019	Electrofishing	1,189 seconds	1 Arctic grayling
HC0.7	July, 2019	Electrofishing	1,300 seconds	5 Arctic grayling, 1 more observed
HC1.1	July, 2019	Electrofishing	1,124 seconds	None; Arctic grayling observed below barrier
HC0.3	August, 2019	Electrofishing	1,122 seconds	2 juvenile Chinook salmon 27 Arctic grayling
HC0.7	August, 2019	Electrofishing	936 seconds	1 Arctic grayling
HC1.1	August, 2019	Electrofishing	956 seconds	None

All above noted work was conducted outside the placer claim and is therefore not included in the statement of expenditures. However, the data collected increases the body of knowledge for the project environmental baseline studies.

5.2 WATER QUALITY

5.2.1 SURFACE WATER QUALITY RESULTS

Between July 25, 2019 and September 25, 2019, water quality samples were taken in Halfway Creek at HC-2.5, HC-B and HC-C twice, and results are included in Appendix B. Analysis performed included alkalinity, chloride, cyanide, dissolved organic carbon, conductance, fluoride, total hardness, dissolved and total mercury, total metals, dissolved metals, nitrate, nitrite, oxidation reduction potential, pH, sulphate, total dissolved solids, total organic carbon, total suspended solids, anions, and ammonia. Water quality results at HC-2.5, HC-B and HC-C in 2019 exhibited similar water quality characteristics as found in previously sampled events (see Section 4.2).

5.2.2 GROUND WATER QUALITY RESULTS

Ground water samples were collected from the two ground water wells located on Halfway Creek, within the placer group: MW15-04AZ and MW15-04WB (Figure 1) during one sampling event between July 25

2019 through September 2019. The groundwater data is presented in Appendix C. Analysis performed included alkalinity, chloride, dissolved organic carbon, conductance, fluoride, total hardness, dissolved and total mercury, total metals, dissolved metals, nitrate, nitrite, oxidation reduction potential, pH, sulphate, total dissolved solids, total organic carbon, total suspended solids, anions, and ammonia. Water quality results at MW15-04AZ and MW15-04WB in 2019 exhibited similar water quality characteristics as found in previously sampled events (see Section 4.2).

5.3 BENTHIC INVERTEBRATE, PERIPHYTON AND STREAM SEDIMENT

Minnow Environmental Inc. conducted benthic invertebrate, periphyton and sediment monitoring in support of the Aquatic Monitoring and Adaptive Management Plan within the Halfway Creek Placer Group. Monitoring of benthic invertebrate community, benthic invertebrate tissue chemistry, periphyton community, periphyton productivity, in-situ water quality and laboratory water chemistry was undertaken in several creek areas. Upper Halfway Creek was included in one of these sample areas and is within the Halfway Creek Placer Group.

Sampling at each site was conducted at five stations to provide replication required for statistical contrasts of spatial and temporal changes and to support future before-after-control-impact (BACI) assessments.

The stations are as follow:

HC6. 8-1

HC6. 8-2

HC6. 8-3

HC6. 8-4

HC6. 8-5

Benthic Invertebrate Community and Biomass: At each station, benthic invertebrate samples were collected at locations of carefully controlled substrate characteristics, water velocity and water depth using a Hess sampler equipped with 500 µm mesh, with each sample a composite of three Hess samples.

Benthic Invertebrate Tissue Chemistry: Five replicate benthic invertebrate tissue samples were collected using a kick net with 400 µm mesh at whichever station would yield the highest volume of benthic invertebrate biomass per sample. Five replica samples were collected from a single station per area and material was transferred from the kick net into 20 mL sample jars.

Periphyton: Samples were collected by scraping submerged rocks using a stainless-steel razor blade. The surface area sampled at each station was measured and recorded to allow analysis on a per-area basis. One sample per station was collected for each of the following parameters: periphyton community and biomass, periphyton chlorophyll a concentration, and periphyton ash-free dry mass (AFDM) for a total of five samples per parameter.

Supporting water chemistry: At all stations, in situ water chemistry data was collected with a portable YSI multimeter.

Available information on benthic invertebrate, periphyton and sediment monitoring in the Halfway Creek Placer Group is pending and not available until 2020.

5.4 GEOTECHNICAL

Thermistor data is collected to record the temperature of the permafrost and log the changes in temperature over time to see how the activity of the mining project may be affecting the permafrost. Currently, thermistor locations are only accessible by helicopter. Most thermistor locations require short hikes, and in some locations, the hikes are over steep and challenging terrain.

Currently, there are 19 regular thermistors on the property which require monthly data retrieval, 13 being located within the Halfway Creek Placer group (Figure 1). Thermistor data was collected on two occasions within the reporting period of this report. The results of the Aug 11 & 31, 2019 data collection are included in Appendix D.

6.0 STATEMENT OF EXPENDITURES

Appendix E contains the 2019 Statement of Expenditures for the Halfway Creek Placer group.

7.0 SIGNED STATEMENT OF QUALIFICATIONS FOR AUTHOR

Appendix F contains the signed Statement of Qualification for the author.

8.0 CONCLUSION AND RECOMMENDATIONS

No fish have been documented in Halfway Creek in the vicinity of the placer group despite numerous recent sampling events so far. While there is no permanent barrier downstream, cool water temperatures and low nutrients may preclude fish use to the lower sections of the stream. With juvenile Chinook salmon being documented near the mouth, the current stream classification (Moderate-High suitability) of the lower portion of the creek is accurate and mining activities will ensure that water quality in the lower portion of the stream is protected accordingly.

9.0 REFERENCES

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Appendix A: Halfway Creek Placer Group claims

District	Grant Number	Claim Name	Claim Nbr	Claim Owner	Operation Recording Date	Staking Date	Claim ExpiryDate	Status	Lease	Tota Excess Credit	NTS Map Number	Ops Number
Whitehorse	P 512481	COFFEE	39	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514249
Whitehorse	P 512482	COFFEE	40	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514250
Whitehorse	P 512483	COFFEE	41	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514251
Whitehorse	P 512484	COFFEE	42	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514252
Whitehorse	P 512485	COFFEE	43	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514253
Whitehorse	P 512486	COFFEE	44	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514254
Whitehorse	P 512487	COFFEE	45	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514255
Whitehorse	P 512488	COFFEE	46	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514256
Whitehorse	P 512489	COFFEE	47	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514257
Whitehorse	P 512490	COFFEE	48	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514258
Whitehorse	P 512491	COFFEE	49	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514259
Whitehorse	P 512492	COFFEE	50	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/27/2018	10/2/2019	Active		0	115J14	1500514260
Whitehorse	P 512493	HALFWAY	1	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514310
Whitehorse	P 512494	HALFWAY	2	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514311
Whitehorse	P 512495	HALFWAY	3	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514312
Whitehorse	P 512496	HALFWAY	4	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514313
Whitehorse	P 512497	HALFWAY	5	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514314
Whitehorse	P 512498	HALFWAY	6	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514315
Whitehorse	P 512499	HALFWAY	7	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514316
Whitehorse	P 512500	HALFWAY	8	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514317
Whitehorse	P 512501	HALFWAY	9	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514318
Whitehorse	P 512502	HALFWAY	10	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514319
Whitehorse	P 512503	HALFWAY	11	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514320
Whitehorse	P 512504	HALFWAY	12	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514321
Whitehorse	P 512505	HALFWAY	13	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514322
Whitehorse	P 512506	HALFWAY	14	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514323
Whitehorse	P 512507	HALFWAY	15	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514324
Whitehorse	P 512508	HALFWAY	16	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514325
Whitehorse	P 512509	HALFWAY	17	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514326
Whitehorse	P 512510	HALFWAY	18	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514327
Whitehorse	P 512511	HALFWAY	19	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514328
Whitehorse	P 512512	HALFWAY	20	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514329
Whitehorse	P 512513	HALFWAY	21	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514330
Whitehorse	P 512514	HALFWAY	22	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514331
Whitehorse	P 512515	HALFWAY	23	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514332
Whitehorse	P 512516	HALFWAY	24	Goldcorp Kaminak Ltd. - 100%	10/2/2018	9/28/2018	10/2/2019	Active		0	115J14	1500514333
Whitehorse	P 512517	HALFWAY	25	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514334
Whitehorse	P 512518	HALFWAY	26	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514335
Whitehorse	P 512519	HALFWAY	27	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514336
Whitehorse	P 512520	HALFWAY	28	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514337
Whitehorse	P 512521	HALFWAY	29	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514338
Whitehorse	P 512522	HALFWAY	30	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514339
Whitehorse	P 512523	HALFWAY	31	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514340
Whitehorse	P 512524	HALFWAY	32	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514341
Whitehorse	P 512525	HALFWAY	33	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514342

District	Grant Number	Claim Name	Claim Nbr	Claim Owner	Operation Recording Date	Staking Date	Claim ExpiryDate	Status	Lease	Tota Excess Credit	NTS Map Number	Ops Number
Whitehorse	P 512526	HALFWAY	34	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514343
Whitehorse	P 512527	HALFWAY	35	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514344
Whitehorse	P 512528	HALFWAY	36	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514345
Whitehorse	P 512529	HALFWAY	37	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514346
Whitehorse	P 512530	HALFWAY	38	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514347
Whitehorse	P 512531	HALFWAY	39	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514348
Whitehorse	P 512532	HALFWAY	40	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514349
Whitehorse	P 512533	HALFWAY	41	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514350
Whitehorse	P 512534	HALFWAY	42	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514351
Whitehorse	P 512535	HALFWAY	43	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514352
Whitehorse	P 512536	HALFWAY	44	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514353
Whitehorse	P 512537	HALFWAY	45	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514354
Whitehorse	P 512538	HALFWAY	46	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514355
Whitehorse	P 512539	HALFWAY	47	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514356
Whitehorse	P 512540	HALFWAY	48	Goldcorp Kaminak Ltd. - 100%	9/29/2018	9/28/2018	9/29/2019	Active		0	115J14	1500514357

0

Appendix B: Surface Water Quality Results



Your P.O. #: 4570046268
 Your Project #: Coffee Gold Project - SW
 Site Location: Coffee Creek
 Your C.O.C. #: 16219

Attention: Carolyn Johns

Goldcorp Inc
 Yukon
 Suite 201-166 Titanium Way
 Whitehorse, YT
 CANADA Y1A 0G1

Report Date: 2019/08/20
 Report #: R2770026
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B966469

Received: 2019/08/12, 12:45

Sample Matrix: Water
 # Samples Received: 33

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO ₃ ,HCO ₃ ,OH	33	N/A	2019/08/13	BBY6SOP-00026	SM 23 2320 B m
Low level chloride/sulphate by AC	33	N/A	2019/08/13	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO ₄ -E m
Cyanide WAD (weak acid dissociable) (1)	33	N/A	2019/08/15	CAL SOP-00270	SM 23 4500-CN m
Carbon (DOC) (1, 2)	33	N/A	2019/08/16	AB SOP-00087	MMCW 119 1996 m
Conductance - Low Level	33	N/A	2019/08/13	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	9	N/A	2019/08/14	BBY6SOP-00048	SM 23 4500-F C m
Fluoride - Low Level	16	N/A	2019/08/16	BBY6SOP-00048	SM 23 4500-F C m
Fluoride - Low Level	8	N/A	2019/08/17	BBY6SOP-00048	SM 23 4500-F C m
Hardness Total (calculated as CaCO ₃) (3)	19	N/A	2019/08/15	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO ₃) (3)	14	N/A	2019/08/16	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2019/08/13	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	32	N/A	2019/08/14	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CV	24	2019/08/13	2019/08/13	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CV	9	2019/08/13	2019/08/14	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	20	2019/08/13	2019/08/14	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	13	2019/08/13	2019/08/15	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2019/08/13	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	32	N/A	2019/08/14	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	33	N/A	2019/08/13	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	19	2019/08/14	2019/08/15	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	12	2019/08/15	2019/08/15	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	19	N/A	2019/08/15	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	14	N/A	2019/08/16	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	2	N/A	2019/08/15	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved) (1)	33	N/A	2019/08/15	AB SOP-00007	SM 23 4500 NH ₃ A G m
Nitrate+Nitrite (N) (low level)	33	N/A	2019/08/13	BBY6SOP-00010	SM 23 4500-NO ₃ - I m
Nitrite (N) (low level)	33	N/A	2019/08/13	BBY6SOP-00010	SM 23 4500-NO ₃ - I m
Nitrogen - Nitrate (as N) Low Level Calc	33	N/A	2019/08/13	BBY WI-00033	Auto Calc



Your P.O. #: 4570046268
 Your Project #: Coffee Gold Project - SW
 Site Location: Coffee Creek
 Your C.O.C. #: 16219

Attention: Carolyn Johns

Goldcorp Inc
 Yukon
 Suite 201-166 Titanium Way
 Whitehorse, YT
 CANADA Y1A 0G1

Report Date: 2019/08/20
 Report #: R2770026
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B966469

Received: 2019/08/12, 12:45

Sample Matrix: Water
 # Samples Received: 33

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Filter and HNO3 Preserve for Metals	32	N/A	2019/08/13	BBY7 WI-00004	SM 23 3030B m
pH @25°C (4)	33	N/A	2019/08/13	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	28	N/A	2019/08/13	BBY6SOP-00013	SM 23 4500-P E m
Orthophosphate by Konelab (low level)	5	N/A	2019/08/20	BBY6SOP-00013	SM 23 4500-P E m
Total Dissolved Solids (Filt. Residue)	8	2019/08/14	2019/08/15	BBY6SOP-00033	SM 23 2540 C m
Total Dissolved Solids (Filt. Residue)	11	2019/08/14	2019/08/16	BBY6SOP-00033	SM 23 2540 C m
Total Dissolved Solids (Filt. Residue)	13	2019/08/15	2019/08/16	BBY6SOP-00033	SM 23 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2019/08/16	2019/08/19	BBY6SOP-00033	SM 23 2540 C m
Carbon (Total Organic) (1, 5)	33	N/A	2019/08/19	AB SOP-00087	MMCW 119 1996 m
Total Suspended Solids (NFR)	8	2019/08/13	2019/08/14	BBY6SOP-00034	SM 23 2540 D m
Total Suspended Solids (NFR)	11	2019/08/13	2019/08/15	BBY6SOP-00034	SM 23 2540 D m
Total Suspended Solids (NFR)	14	2019/08/14	2019/08/15	BBY6SOP-00034	SM 23 2540 D m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.



Your P.O. #: 4570046268
Your Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your C.O.C. #: 16219

Attention: Carolyn Johns

Goldcorp Inc
Yukon
Suite 201-166 Titanium Way
Whitehorse, YT
CANADA Y1A 0G1

Report Date: 2019/08/20
Report #: R2770026
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B966469

Received: 2019/08/12, 12:45

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by BV Labs Calgary Environmental
- (2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Safiann Maiter, Key Account Specialist

Email: Safiann.Maiter@bvlabs.com

Phone# (604)639-2616

=====

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0606		WH0607		WH0608		
Sampling Date			2019/08/08 10:35		2019/08/08 14:00		2019/08/08 14:45		
COC Number			16219		16219		16219		
	UNITS	Criteria	CC-0.5	QC Batch	CC-1.0	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.285	9545650	0.796	9545650	0.227	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00085	9548051	0.00068	9548057	0.00107	0.00050	9548057
Fluoride (F)	mg/L	-	0.064	9551202	0.086	9551202	0.040	0.010	9551202
Dissolved Organic Carbon (C)	mg/L	-	15	9549359	4.8	9549428	12	0.50	9549428
pH	pH	6:9	7.14	9546482	8.33	9546482	7.16	N/A	9546482
Total Organic Carbon (C)	mg/L	-	14	9551334	4.9	9551334	12	0.50	9551334
Total Dissolved Solids	mg/L	-	96	9547423	460	9547423	98	10	9547423
Total Suspended Solids	mg/L	-	5.2	9547426	4.0	9547426	6.8	1.0	9547426
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546476	1.9	9546476	<1.0	1.0	9546476
Alkalinity (Total as CaCO3)	mg/L	-	28	9546476	230	9546476	33	1.0	9546476
Bicarbonate (HCO3)	mg/L	-	34	9546476	280	9546476	40	1.0	9546476
Carbonate (CO3)	mg/L	-	<1.0	9546476	2.3	9546476	<1.0	1.0	9546476
Hydroxide (OH)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Orthophosphate (P)	mg/L	-	0.0029	9555679	0.0030	9555679	0.0067	0.0010	9546523
Dissolved Chloride (Cl)	mg/L	-	0.70	9547587	0.93	9547587	0.85	0.50	9547587
Dissolved Sulphate (SO4)	mg/L	-	19	9547587	140	9547587	24	0.50	9547587
Nutrients									
Total Ammonia (N)	mg/L	-	0.018	9548394	0.059	9548401	0.048	0.0050	9548401
Nitrate plus Nitrite (N)	mg/L	-	0.285	9546181	0.796	9546181	0.227	0.0020	9546181
Nitrite (N)	mg/L	-	<0.0020	9546186	<0.0020	9546186	<0.0020	0.0020	9546186
Physical Properties									
Conductivity	uS/cm	-	104	9546480	667	9546480	118	1.0	9546480
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0609		WH0610		WH0611		
Sampling Date			2019/08/08 11:05		2019/08/09 10:50		2019/08/08 17:25		
COC Number			16219		16219		16219		
	UNITS	Criteria	CC-3.5	QC Batch	CC-4.5	QC Batch	CC-6.0	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.278	9545650	0.256	9545650	0.0189	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	<0.00050	9548051	0.00064	9548051	0.00085	0.00050	9548051
Fluoride (F)	mg/L	-	0.048	9551202	0.064	9551202	0.027	0.010	9551202
Dissolved Organic Carbon (C)	mg/L	-	14	9549428	14	9549428	13	0.50	9549359
pH	pH	6:9	7.17	9546482	7.14	9546482	6.34	N/A	9546482
Total Organic Carbon (C)	mg/L	-	14	9551334	14	9551334	12	0.50	9551334
Total Dissolved Solids	mg/L	-	110	9547423	100	9549454	34 (1)	10	9547423
Total Suspended Solids	mg/L	-	6.8	9547426	3.2	9547426	21	1.0	9547426
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Alkalinity (Total as CaCO3)	mg/L	-	33	9546476	35	9546476	4.3	1.0	9546476
Bicarbonate (HCO3)	mg/L	-	41	9546476	42	9546476	5.3	1.0	9546476
Carbonate (CO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Hydroxide (OH)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Orthophosphate (P)	mg/L	-	0.0068	9546523	0.0066	9546523	0.0068	0.0010	9546523
Dissolved Chloride (Cl)	mg/L	-	0.95	9547587	1.0	9547587	0.79	0.50	9547587
Dissolved Sulphate (SO4)	mg/L	-	26	9547587	27	9547587	<0.50	0.50	9547587
Nutrients									
Total Ammonia (N)	mg/L	-	0.051	9548401	0.036	9548401	0.044	0.0050	9548394
Nitrate plus Nitrite (N)	mg/L	-	0.278	9546181	0.256	9546181	0.0189	0.0020	9546181
Nitrite (N)	mg/L	-	<0.0020	9546186	<0.0020	9546186	<0.0020	0.0020	9546186
Physical Properties									
Conductivity	uS/cm	-	126	9546480	132	9546480	19.3	1.0	9546480
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									
(1) Particulates < 1.5 um present in sample.									



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0612		WH0613		WH0614		
Sampling Date			2019/08/08 17:00		2019/08/08 16:30		2019/08/09 10:25		
COC Number			16219		16219		16219		
	UNITS	Criteria	CC-A	QC Batch	CC-B	QC Batch	CC-X	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.121	9545650	0.192	9545650	0.246	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00094	9548057	0.00066	9548051	0.00067	0.00050	9548057
Fluoride (F)	mg/L	-	0.032	9551202	0.042	9551202	0.063	0.010	9551202
Dissolved Organic Carbon (C)	mg/L	-	13	9549359	13	9549428	14	0.50	9549428
pH	pH	6:9	6.67	9546482	7.12	9546482	7.15	N/A	9546482
Total Organic Carbon (C)	mg/L	-	12	9551334	12	9551334	13	0.50	9551334
Total Dissolved Solids	mg/L	-	38	9547423	76	9547423	100	10	9549454
Total Suspended Solids	mg/L	-	8.0	9547426	7.6	9547426	3.2	1.0	9547426
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Alkalinity (Total as CaCO3)	mg/L	-	9.0	9546476	30	9546476	35	1.0	9546476
Bicarbonate (HCO3)	mg/L	-	11	9546476	36	9546476	43	1.0	9546476
Carbonate (CO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Hydroxide (OH)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Orthophosphate (P)	mg/L	-	0.0043	9546523	0.0046	9546523	0.0083	0.0010	9546523
Dissolved Chloride (Cl)	mg/L	-	0.93	9547587	0.86	9547587	0.92	0.50	9547587
Dissolved Sulphate (SO4)	mg/L	-	3.6	9547587	21	9547587	26	0.50	9547587
Nutrients									
Total Ammonia (N)	mg/L	-	0.015	9548394	0.051	9548401	0.044	0.0050	9548401
Nitrate plus Nitrite (N)	mg/L	-	0.121	9546181	0.192	9546181	0.246	0.0020	9546181
Nitrite (N)	mg/L	-	<0.0020	9546186	<0.0020	9546186	<0.0020	0.0020	9546186
Physical Properties									
Conductivity	uS/cm	-	41.8	9546480	114	9546480	134	1.0	9546480
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0615		WH0616		WH0617		
Sampling Date			2019/08/08 09:45		2019/08/08 13:30		2019/08/10 10:30		
COC Number			16219		16219		16219		
	UNITS	Criteria	Coffee Mix	QC Batch	Latte Mix	QC Batch	HC-2.5	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.242	9545650	0.260	9545650	0.444	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00075	9548051	0.00109	9548057	0.00182	0.00050	9548057
Fluoride (F)	mg/L	-	0.062	9551202	0.059	9551202	0.047	0.010	9551202
Dissolved Organic Carbon (C)	mg/L	-	14	9549428	15	9549428	12	0.50	9549428
pH	pH	6:9	7.13	9546482	7.12	9546482	7.25	N/A	9546482
Total Organic Carbon (C)	mg/L	-	14	9551334	14	9551334	13	0.50	9551334
Total Dissolved Solids	mg/L	-	94	9547423	94	9547423	90	10	9549454
Total Suspended Solids	mg/L	-	7.6	9547426	4.4	9547426	2.8	1.0	9547720
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Alkalinity (Total as CaCO3)	mg/L	-	32	9546476	29	9546476	39	1.0	9546476
Bicarbonate (HCO3)	mg/L	-	39	9546476	36	9546476	47	1.0	9546476
Carbonate (CO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Hydroxide (OH)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546476
Orthophosphate (P)	mg/L	-	0.0031	9546523	0.0039	9546523	0.0085	0.0010	9555679
Dissolved Chloride (Cl)	mg/L	-	0.83	9547587	1.0	9547587	1.0	0.50	9547587
Dissolved Sulphate (SO4)	mg/L	-	24	9547587	19	9547587	13	0.50	9547587
Nutrients									
Total Ammonia (N)	mg/L	-	0.029	9548401	0.043	9548394	0.062	0.0050	9548401
Nitrate plus Nitrite (N)	mg/L	-	0.242	9546181	0.260	9546181	0.444	0.0020	9546181
Nitrite (N)	mg/L	-	<0.0020	9546186	<0.0020	9546186	<0.0020	0.0020	9546186
Physical Properties									
Conductivity	uS/cm	-	123	9546480	110	9546480	114	1.0	9546480
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit N/A = Not Applicable									



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0618		WH0619		WH0620		
Sampling Date			2019/08/07 17:40		2019/08/10 08:10		2019/08/10 08:50		
COC Number			16219		16219		16219		
	UNITS	Criteria	HC-5.0	QC Batch	HC-A	QC Batch	HC-B	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.404	9545650	0.397	9545650	0.431	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00119	9548057	0.00079	9548051	<0.00050	0.00050	9548051
Fluoride (F)	mg/L	-	0.057	9551202	0.063	9551202	0.054	0.010	9551202
Dissolved Organic Carbon (C)	mg/L	-	14	9549428	12	9549428	12	0.50	9549359
pH	pH	6:9	7.36	9546492	7.42	9546482	7.35	N/A	9546482
Total Organic Carbon (C)	mg/L	-	14	9551334	12	9551334	11	0.50	9551334
Total Dissolved Solids	mg/L	-	100	9547418	120	9549454	100	10	9549454
Total Suspended Solids	mg/L	-	13	9545509	1.2	9547720	1.2	1.0	9547720
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546476
Alkalinity (Total as CaCO3)	mg/L	-	41	9546485	55	9546476	50	1.0	9546476
Bicarbonate (HCO3)	mg/L	-	50	9546485	67	9546476	60	1.0	9546476
Carbonate (CO3)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546476
Hydroxide (OH)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546476
Orthophosphate (P)	mg/L	-	0.0044	9547530	0.0066	9546523	0.0054	0.0010	9546523
Dissolved Chloride (Cl)	mg/L	-	0.90	9547587	0.91	9547587	0.76	0.50	9547587
Dissolved Sulphate (SO4)	mg/L	-	14	9547587	24	9547587	20	0.50	9547587
Nutrients									
Total Ammonia (N)	mg/L	-	0.065	9548401	0.030	9548401	0.038	0.0050	9548394
Nitrate plus Nitrite (N)	mg/L	-	0.404	9546191	0.397	9546181	0.431	0.0020	9546181
Nitrite (N)	mg/L	-	<0.0020	9546193	<0.0020	9546186	<0.0020	0.0020	9546186
Physical Properties									
Conductivity	uS/cm	-	121	9546490	162	9546480	144	1.0	9546480
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0621		WH0622		WH0623		
Sampling Date			2019/08/10 09:40		2019/08/07 17:30		2019/08/09 16:40		
COC Number			16219		16219		16219		
	UNITS	Criteria	HC-C	QC Batch	Halfway Mix	QC Batch	IC-0.5	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.457	9545650	0.282	9545650	0.379	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00063	9548051	<0.00050	9548051	0.00110	0.00050	9548057
Fluoride (F)	mg/L	-	0.053	9551202	0.073	9552523	0.070	0.010	9547547
Dissolved Organic Carbon (C)	mg/L	-	12	9549359	13	9549428	17	0.50	9549428
pH	pH	6:9	7.33	9546482	7.35	9546482	7.05	N/A	9546492
Total Organic Carbon (C)	mg/L	-	12	9551334	11	9551334	17	0.50	9551334
Total Dissolved Solids	mg/L	-	100	9549454	94	9547418	86	10	9549454
Total Suspended Solids	mg/L	-	<1.0	9547720	9.6	9545509	7.6	1.0	9547426
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546485
Alkalinity (Total as CaCO3)	mg/L	-	45	9546476	48	9546476	23	1.0	9546485
Bicarbonate (HCO3)	mg/L	-	55	9546476	59	9546476	28	1.0	9546485
Carbonate (CO3)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546485
Hydroxide (OH)	mg/L	-	<1.0	9546476	<1.0	9546476	<1.0	1.0	9546485
Orthophosphate (P)	mg/L	-	0.0061	9546523	0.0036	9546523	0.0026	0.0010	9555679
Dissolved Chloride (Cl)	mg/L	-	0.75	9547587	1.0	9547587	1.1	0.50	9547588
Dissolved Sulphate (SO4)	mg/L	-	17	9547587	17	9547587	18	0.50	9547588
Nutrients									
Total Ammonia (N)	mg/L	-	0.023	9548401	0.023	9548401	0.052	0.0050	9548394
Nitrate plus Nitrite (N)	mg/L	-	0.457	9546181	0.282	9546181	0.379	0.0020	9546191
Nitrite (N)	mg/L	-	<0.0020	9546186	<0.0020	9546186	<0.0020	0.0020	9546193
Physical Properties									
Conductivity	uS/cm	-	132	9546480	137	9546480	98.7	1.0	9546490
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



BUREAU
VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0624		WH0625		WH0626		
Sampling Date			2019/08/09 15:20		2019/08/09 14:30		2019/08/09 13:25		
COC Number			16219		16219		16219		
	UNITS	Criteria	IC-1.5	QC Batch	IC-2.5	QC Batch	IC-3.0	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.236	9545650	0.0847	9545650	0.619	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00121	9548057	0.00084	9548051	0.00090	0.00050	9548057
Fluoride (F)	mg/L	-	0.045	9547547	0.040	9552523	0.061	0.010	9547547
Dissolved Organic Carbon (C)	mg/L	-	15	9549359	16	9549436	13	0.50	9549428
pH	pH	6:9	7.05	9546492	6.54	9546482	7.29	N/A	9546492
Total Organic Carbon (C)	mg/L	-	15	9551334	16	9551334	13	0.50	9551342
Total Dissolved Solids	mg/L	-	62	9549454	50 (1)	9549454	110	10	9549454
Total Suspended Solids	mg/L	-	11	9547426	9.2	9547426	8.4	1.0	9547426
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546485
Alkalinity (Total as CaCO3)	mg/L	-	24	9546485	7.0	9546476	43	1.0	9546485
Bicarbonate (HCO3)	mg/L	-	29	9546485	8.6	9546476	53	1.0	9546485
Carbonate (CO3)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546485
Hydroxide (OH)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546485
Orthophosphate (P)	mg/L	-	0.0050	9547530	0.015	9546523	0.0066	0.0010	9555679
Dissolved Chloride (Cl)	mg/L	-	1.1	9547588	1.0	9547587	1.0	0.50	9547588
Dissolved Sulphate (SO4)	mg/L	-	1.5	9547588	<0.50	9547587	25	0.50	9547588
Nutrients									
Total Ammonia (N)	mg/L	-	0.039	9548401	0.037	9548394	0.037	0.0050	9548394
Nitrate plus Nitrite (N)	mg/L	-	0.236	9546191	0.0847	9546181	0.619	0.0020	9546191
Nitrite (N)	mg/L	-	<0.0020	9546193	<0.0020	9546186	<0.0020	0.0020	9546193
Physical Properties									
Conductivity	uS/cm	-	66.6	9546490	25.5	9546480	148	1.0	9546490
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									
(1) Particulates < 1.5 um present in sample.									



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0627		WH0628		WH0629		
Sampling Date			2019/08/09 12:05		2019/08/07 16:20		2019/08/07 15:45		
COC Number			16219		16219		16219		
	UNITS	Criteria	IC-4.5	QC Batch	ML-A	QC Batch	ML-B	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.281	9545650	0.669	9545650	0.685	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00099	9548051	<0.00050	9548051	<0.00050	0.00050	9548051
Fluoride (F)	mg/L	-	0.061	9552523	0.045	9547547	0.037	0.010	9552523
Dissolved Organic Carbon (C)	mg/L	-	16	9549436	14	9549436	14	0.50	9549436
pH	pH	6:9	7.07	9546492	7.16	9546492	6.98	N/A	9546492
Total Organic Carbon (C)	mg/L	-	16	9551342	14	9551342	15	0.50	9551342
Total Dissolved Solids	mg/L	-	84	9549454	84	9547418	66	10	9547418
Total Suspended Solids	mg/L	-	6.8	9547426	14	9545509	17	1.0	9545509
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546485	<1.0	9546485	<1.0	1.0	9546485
Alkalinity (Total as CaCO3)	mg/L	-	27	9546485	31	9546485	22	1.0	9546485
Bicarbonate (HCO3)	mg/L	-	33	9546485	38	9546485	26	1.0	9546485
Carbonate (CO3)	mg/L	-	<1.0	9546485	<1.0	9546485	<1.0	1.0	9546485
Hydroxide (OH)	mg/L	-	<1.0	9546485	<1.0	9546485	<1.0	1.0	9546485
Orthophosphate (P)	mg/L	-	0.0046	9547530	0.0061	9547530	0.0059	0.0010	9547530
Dissolved Chloride (Cl)	mg/L	-	0.89	9547587	1.2	9547588	1.2	0.50	9547588
Dissolved Sulphate (SO4)	mg/L	-	12	9547587	18	9547588	8.3	0.50	9547588
Nutrients									
Total Ammonia (N)	mg/L	-	0.033	9548394	0.038	9548394	0.023	0.0050	9548394
Nitrate plus Nitrite (N)	mg/L	-	0.281	9546191	0.669	9546191	0.685	0.0020	9546191
Nitrite (N)	mg/L	-	<0.0020	9546193	<0.0020	9546193	<0.0020	0.0020	9546193
Physical Properties									
Conductivity	uS/cm	-	90.2	9546490	113	9546490	77.4	1.0	9546490
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0630		WH0631		WH0632		
Sampling Date			2019/08/07 16:52		2019/08/07 14:43		2019/08/07 14:20		
COC Number			16219		16219		16219		
	UNITS	Criteria	ML-C (or YT-24-2)	QC Batch	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	RDL	QC Batch

Calculated Parameters

Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.690	9545650	0.663	9545650	0.643	0.0020	9545650

Misc. Inorganics

Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00078	9548051	0.00109	9548057	0.00078	0.00050	9548051
Fluoride (F)	mg/L	-	0.033	9547547	0.053	9547547	0.057	0.010	9547547
Dissolved Organic Carbon (C)	mg/L	-	14	9549428	14	9549428	10	0.50	9549428
pH	pH	6:9	6.84	9546492	7.23	9546492	7.23	N/A	9546492
Total Organic Carbon (C)	mg/L	-	15	9551342	14	9551342	14	0.50	9551342
Total Dissolved Solids	mg/L	-	42	9547418	110	9547418	100	10	9547418
Total Suspended Solids	mg/L	-	12	9545509	12	9545509	12	1.0	9545509

Anions

Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546485	<1.0	9546485	<1.0	1.0	9546485
Alkalinity (Total as CaCO3)	mg/L	-	13	9546485	37	9546485	38	1.0	9546485
Bicarbonate (HCO3)	mg/L	-	15	9546485	45	9546485	46	1.0	9546485
Carbonate (CO3)	mg/L	-	<1.0	9546485	<1.0	9546485	<1.0	1.0	9546485
Hydroxide (OH)	mg/L	-	<1.0	9546485	<1.0	9546485	<1.0	1.0	9546485
Orthophosphate (P)	mg/L	-	0.0052	9547530	0.0091	9547530	0.0039	0.0010	9547530
Dissolved Chloride (Cl)	mg/L	-	1.1	9547588	1.1	9547588	1.1	0.50	9547588
Dissolved Sulphate (SO4)	mg/L	-	<0.50	9547588	24	9547588	23	0.50	9547588

Nutrients

Total Ammonia (N)	mg/L	-	0.080	9548401	0.029	9548401	0.046	0.0050	9548401
Nitrate plus Nitrite (N)	mg/L	-	0.690	9546191	0.663	9546191	0.643	0.0020	9546191
Nitrite (N)	mg/L	-	<0.0020	9546193	<0.0020	9546193	<0.0020	0.0020	9546193

Physical Properties

Conductivity	uS/cm	-	44.8	9546490	135	9546490	136	1.0	9546490
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No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

N/A = Not Applicable



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0633		WH0634		WH0635		
Sampling Date			2019/08/08 09:15		2019/08/09 11:35		2019/08/08		
COC Number			16219		16219		16219		
	UNITS	Criteria	YUK-2.0	QC Batch	YUK-5.0	QC Batch	Sample A	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	-	0.0022	9545650	0.0079	9545650	0.290	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	<0.00050	9548057	<0.00050	9548051	0.00144	0.00050	9548057
Fluoride (F)	mg/L	-	0.110	9552523	0.110	9547547	0.057	0.010	9552523
Dissolved Organic Carbon (C)	mg/L	-	1.7	9549436	2.3	9549428	15	0.50	9549436
pH	pH	6:9	7.69	9546482	7.60	9546492	7.10	N/A	9546492
Total Organic Carbon (C)	mg/L	-	1.7	9551342	1.9	9551342	15	0.50	9551342
Total Dissolved Solids	mg/L	-	96	9547423	100	9549454	96	10	9547423
Total Suspended Solids	mg/L	-	9.6	9547426	8.0	9547426	4.0	1.0	9547426
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546476	<1.0	9546485	<1.0	1.0	9546485
Alkalinity (Total as CaCO3)	mg/L	-	70	9546476	69	9546485	27	1.0	9546485
Bicarbonate (HCO3)	mg/L	-	86	9546476	84	9546485	33	1.0	9546485
Carbonate (CO3)	mg/L	-	<1.0	9546476	<1.0	9546485	<1.0	1.0	9546485
Hydroxide (OH)	mg/L	-	<1.0	9546476	<1.0	9546485	<1.0	1.0	9546485
Orthophosphate (P)	mg/L	-	0.0034	9546523	0.0028	9547530	0.0037	0.0010	9547530
Dissolved Chloride (Cl)	mg/L	-	0.74	9547587	0.92	9547588	1.3	0.50	9547588
Dissolved Sulphate (SO4)	mg/L	-	24	9547587	22	9547588	19	0.50	9547588
Nutrients									
Total Ammonia (N)	mg/L	-	0.045	9548401	0.070	9548394	0.027	0.0050	9548401
Nitrate plus Nitrite (N)	mg/L	-	0.0022	9546181	0.0079	9546191	0.290	0.0020	9546191
Nitrite (N)	mg/L	-	<0.0020	9546186	<0.0020	9546193	<0.0020	0.0020	9546193
Physical Properties									
Conductivity	uS/cm	-	176	9546480	176	9546490	105	1.0	9546490
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WH0636		WH0637		WH0638		
Sampling Date			2019/08/09		2019/08/09		2019/08/07		
COC Number			16219		16219		16219		
	UNITS	Criteria	Sample B	QC Batch	Field Blank	QC Batch	Trip Blank	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE			
Nitrate (N)	mg/L	-	0.627	9545650	<0.0020	9545650	<0.0020	0.0020	9545650
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	-	0.00106	9548051	<0.00050	9548051	<0.00050	0.00050	9548051
Fluoride (F)	mg/L	-	0.061	9552523	<0.010	9547547	<0.010	0.010	9552523
Dissolved Organic Carbon (C)	mg/L	-	13	9549428	<0.50	9549428	<0.50	0.50	9549359
pH	pH	6:9	7.31	9546492	4.98	9546482	4.99	N/A	9546482
Total Organic Carbon (C)	mg/L	-	14	9551342	<0.50	9551342	<0.50	0.50	9551342
Total Dissolved Solids	mg/L	-	120	9549454	<10	9551252	<10	10	9547418
Total Suspended Solids	mg/L	-	5.6	9547426	<1.0	9547720	<1.0	1.0	9545509
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546476
Alkalinity (Total as CaCO3)	mg/L	-	43	9546485	<1.0	9546476	<1.0	1.0	9546476
Bicarbonate (HCO3)	mg/L	-	53	9546485	<1.0	9546476	<1.0	1.0	9546476
Carbonate (CO3)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546476
Hydroxide (OH)	mg/L	-	<1.0	9546485	<1.0	9546476	<1.0	1.0	9546476
Orthophosphate (P)	mg/L	-	0.0015	9547530	<0.0010	9547530	0.0016	0.0010	9547530
Dissolved Chloride (Cl)	mg/L	-	1.0	9547588	0.63	9547588	0.70	0.50	9547588
Dissolved Sulphate (SO4)	mg/L	-	25	9547588	<0.50	9547588	<0.50	0.50	9547588
Nutrients									
Total Ammonia (N)	mg/L	-	0.041	9548394	0.030	9548401	0.032	0.0050	9548401
Nitrate plus Nitrite (N)	mg/L	-	0.627	9546191	<0.0020	9546181	<0.0020	0.0020	9546181
Nitrite (N)	mg/L	-	<0.0020	9546193	<0.0020	9546186	<0.0020	0.0020	9546186
Physical Properties									
Conductivity	uS/cm	-	149	9546490	<1.0	9546480	<1.0	1.0	9546480
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			WH0606	WH0607	WH0608	WH0609	WH0610	WH0611		
Sampling Date			2019/08/08 10:35	2019/08/08 14:00	2019/08/08 14:45	2019/08/08 11:05	2019/08/09 10:50	2019/08/08 17:25		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	CC-0.5	CC-1.0	CC-1.5	CC-3.5	CC-4.5	CC-6.0	RDL	QC Batch

Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	297	89.7	366	372	188	297	3.0	9547823
Total Antimony (Sb)	ug/L	-	0.127	0.158	0.115	0.111	0.125	0.081	0.020	9547823
Total Arsenic (As)	ug/L	-	0.576	1.22	0.722	0.541	0.476	0.472	0.020	9547823
Total Barium (Ba)	ug/L	-	30.6	79.5	23.6	28.0	33.1	12.9	0.050	9547823
Total Beryllium (Be)	ug/L	-	0.018	<0.010	0.029	0.028	0.017	0.028	0.010	9547823
Total Bismuth (Bi)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9547823
Total Boron (B)	ug/L	-	<10	<10	<10	<10	<10	<10	10	9547823
Total Cadmium (Cd)	ug/L	-	0.0127	<0.0050	0.0097	0.0106	0.0080	0.0102	0.0050	9547823
Total Chromium (Cr)	ug/L	20	0.71	0.33	0.76	0.90	0.55	0.62	0.10	9547823
Total Cobalt (Co)	ug/L	-	0.197	0.077	0.200	0.231	0.108	0.139	0.010	9547823
Total Copper (Cu)	ug/L	-	2.88	0.92	1.81	2.01	2.42	1.67	0.10	9547823
Total Iron (Fe)	ug/L	-	320	118	383	454	193	308	5.0	9547823
Total Lead (Pb)	ug/L	-	0.078	0.046	0.151	0.168	0.039	0.094	0.020	9547823
Total Lithium (Li)	ug/L	-	0.74	4.00	0.96	0.66	0.62	<0.50	0.50	9547823
Total Manganese (Mn)	ug/L	-	14.4	4.96	22.2	18.6	7.04	29.6	0.10	9547823
Total Molybdenum (Mo)	ug/L	-	0.570	0.328	0.094	0.145	0.519	<0.050	0.050	9547823
Total Nickel (Ni)	ug/L	-	1.30	0.61	0.94	0.98	1.07	0.87	0.10	9547823
Total Phosphorus (P)	ug/L	-	10.8	7.1	12.9	15.1	8.0	14.1	5.0	9547823
Total Selenium (Se)	ug/L	-	0.151	0.290	0.114	0.107	0.107	0.075	0.040	9547823
Total Silicon (Si)	ug/L	-	5190	5160	5040	4910	4910	4960	50	9547823
Total Silver (Ag)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9547823
Total Strontium (Sr)	ug/L	-	56.7	839	119	110	78.8	13.6	0.050	9547823
Total Thallium (Tl)	ug/L	-	0.0057	0.0035	0.0044	0.0043	0.0030	<0.0020	0.0020	9547823
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9547823
Total Titanium (Ti)	ug/L	-	9.2	4.7	13.4	13.4	4.8	6.3	2.0	9547823
Total Uranium (U)	ug/L	-	2.13	25.0	3.53	2.58	2.25	0.502	0.0050	9547823
Total Vanadium (V)	ug/L	-	0.94	0.50	0.96	1.09	0.63	0.72	0.20	9547823
Total Zinc (Zn)	ug/L	-	1.1	<1.0	1.4	1.3	<1.0	1.3	1.0	9547823
Total Zirconium (Zr)	ug/L	-	0.71	<0.10	0.75	0.88	0.64	0.73	0.10	9547823
Total Sulphur (S)	ug/L	-	6370	46500	6960	7540	8320	<600	600	9547823

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	

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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			WH0612	WH0613	WH0614	WH0615	WH0616	WH0617		
Sampling Date			2019/08/08 17:00	2019/08/08 16:30	2019/08/09 10:25	2019/08/08 09:45	2019/08/08 13:30	2019/08/10 10:30		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	CC-A	CC-B	CC-X	Coffee Mix	Latte Mix	HC-2.5	RDL	QC Batch

Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	281	323	188	233	250	247	3.0	9547823
Total Antimony (Sb)	ug/L	-	0.104	0.107	0.116	0.116	0.118	0.286	0.020	9547823
Total Arsenic (As)	ug/L	-	0.599	0.707	0.489	0.540	0.556	1.16	0.020	9547823
Total Barium (Ba)	ug/L	-	15.2	23.1	34.7	35.2	30.1	28.4	0.050	9547823
Total Beryllium (Be)	ug/L	-	0.032	0.032	0.016	0.017	0.020	0.026	0.010	9547823
Total Bismuth (Bi)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9547823
Total Boron (B)	ug/L	-	<10	<10	<10	<10	<10	<10	10	9547823
Total Cadmium (Cd)	ug/L	-	0.0095	0.0093	0.0076	0.0083	0.0111	0.0066	0.0050	9547823
Total Chromium (Cr)	ug/L	20	0.64	0.74	0.52	0.58	0.69	0.72	0.10	9547823
Total Cobalt (Co)	ug/L	-	0.141	0.180	0.106	0.147	0.154	0.144	0.010	9547823
Total Copper (Cu)	ug/L	-	1.90	1.92	2.49	2.60	2.59	1.74	0.10	9547823
Total Iron (Fe)	ug/L	-	259	331	192	260	271	235	5.0	9547823
Total Lead (Pb)	ug/L	-	0.091	0.133	0.043	0.066	0.070	0.059	0.020	9547823
Total Lithium (Li)	ug/L	-	0.61	0.85	0.63	0.65	0.72	0.79	0.50	9547823
Total Manganese (Mn)	ug/L	-	20.9	21.7	7.50	10.5	11.7	9.02	0.10	9547823
Total Molybdenum (Mo)	ug/L	-	0.054	0.112	0.514	0.516	0.467	0.690	0.050	9547823
Total Nickel (Ni)	ug/L	-	0.88	0.94	1.09	1.14	1.20	0.92	0.10	9547823
Total Phosphorus (P)	ug/L	-	18.6	11.4	8.3	11.6	9.3	8.7	5.0	9547823
Total Selenium (Se)	ug/L	-	0.077	0.086	0.113	0.106	0.116	0.085	0.040	9547823
Total Silicon (Si)	ug/L	-	5180	5110	5040	5180	5210	5050	50	9547823
Total Silver (Ag)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9547823
Total Strontium (Sr)	ug/L	-	31.6	117	81.1	76.6	70.1	155	0.050	9547823
Total Thallium (Tl)	ug/L	-	<0.0020	0.0024	0.0027	0.0033	0.0031	0.0026	0.0020	9547823
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9547823
Total Titanium (Ti)	ug/L	-	5.4	9.1	5.1	6.1	5.9	6.3	2.0	9547823
Total Uranium (U)	ug/L	-	1.21	3.05	2.21	2.07	2.28	11.6	0.0050	9547823
Total Vanadium (V)	ug/L	-	0.70	0.93	0.69	0.80	0.81	0.74	0.20	9547823
Total Zinc (Zn)	ug/L	-	1.1	1.1	<1.0	<1.0	1.1	<1.0	1.0	9547823
Total Zirconium (Zr)	ug/L	-	0.92	0.81	0.64	0.77	0.78	0.71	0.10	9547823
Total Sulphur (S)	ug/L	-	2000	7370	8440	8040	6180	4670	600	9547823

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			WH0618	WH0619	WH0620	WH0621	WH0622	WH0623		
Sampling Date			2019/08/07 17:40	2019/08/10 08:10	2019/08/10 08:50	2019/08/10 09:40	2019/08/07 17:30	2019/08/09 16:40		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	HC-5.0	HC-A	HC-B	HC-C	Halfway Mix	IC-0.5	RDL	QC Batch

Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	249	96.4	125	150	308	345	3.0	9547823
Total Antimony (Sb)	ug/L	-	0.245	0.248	0.273	0.304	0.227	0.096	0.020	9547823
Total Arsenic (As)	ug/L	-	1.07	0.768	0.938	1.05	1.14	0.643	0.020	9547823
Total Barium (Ba)	ug/L	-	31.3	34.3	28.8	27.9	34.9	24.8	0.050	9547823
Total Beryllium (Be)	ug/L	-	0.027	0.012	0.017	0.015	0.028	0.029	0.010	9547823
Total Bismuth (Bi)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9547823
Total Boron (B)	ug/L	-	<10	<10	<10	<10	<10	<10	10	9547823
Total Cadmium (Cd)	ug/L	-	0.0062	<0.0050	<0.0050	<0.0050	0.0105	0.0561	0.0050	9547823
Total Chromium (Cr)	ug/L	20	0.79	0.45	0.51	0.51	0.85	0.95	0.10	9547823
Total Cobalt (Co)	ug/L	-	0.169	0.076	0.087	0.094	0.218	0.335	0.010	9547823
Total Copper (Cu)	ug/L	-	2.08	1.71	1.60	1.65	2.07	3.53	0.10	9547823
Total Iron (Fe)	ug/L	-	286	101	128	146	376	396	5.0	9547823
Total Lead (Pb)	ug/L	-	0.106	<0.020	0.038	0.029	0.154	0.107	0.020	9547823
Total Lithium (Li)	ug/L	-	0.75	0.79	0.76	0.83	0.87	1.10	0.50	9547823
Total Manganese (Mn)	ug/L	-	10.5	2.49	5.09	4.35	14.6	23.6	0.10	9547823
Total Molybdenum (Mo)	ug/L	-	0.444	0.581	0.641	0.709	0.519	0.270	0.050	9547823
Total Nickel (Ni)	ug/L	-	1.10	0.76	0.66	0.75	1.19	2.48	0.10	9547823
Total Phosphorus (P)	ug/L	-	11.8	5.3	6.3	6.3	16.6	12.4	5.0	9547823
Total Selenium (Se)	ug/L	-	0.077	0.079	0.074	0.086	0.090	0.177	0.040	9547823
Total Silicon (Si)	ug/L	-	5030	4870	4950	5170	4910	5730	50	9547823
Total Silver (Ag)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9547823
Total Strontium (Sr)	ug/L	-	137	183	170	166	140	41.3	0.050	9547823
Total Thallium (Tl)	ug/L	-	<0.0020	<0.0020	<0.0020	<0.0020	0.0029	0.0047	0.0020	9547823
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9547823
Total Titanium (Ti)	ug/L	-	8.2	2.1	3.0	2.7	11.7	10.0	2.0	9547823
Total Uranium (U)	ug/L	-	5.42	7.84	10.8	11.2	5.08	0.874	0.0050	9547823
Total Vanadium (V)	ug/L	-	0.92	0.42	0.52	0.51	1.13	1.25	0.20	9547823
Total Zinc (Zn)	ug/L	-	<1.0	<1.0	<1.0	<1.0	1.4	3.6	1.0	9547823
Total Zirconium (Zr)	ug/L	-	0.68	0.55	0.57	0.66	0.59	0.90	0.10	9547823
Total Sulphur (S)	ug/L	-	5260	7630	6380	5680	5310	5990	600	9547823

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			WH0624		WH0625	WH0626	WH0627	WH0628		
Sampling Date			2019/08/09 15:20		2019/08/09 14:30	2019/08/09 13:25	2019/08/09 12:05	2019/08/07 16:20		
COC Number			16219		16219	16219	16219	16219		
	UNITS	Criteria	IC-1.5	QC Batch	IC-2.5	IC-3.0	IC-4.5	ML-A	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	418	9547823	535	325	337	414	3.0	9549063
Total Antimony (Sb)	ug/L	-	0.104	9547823	0.153	0.315	0.127	0.312	0.020	9549063
Total Arsenic (As)	ug/L	-	0.448	9547823	1.24	1.61	0.646	0.976	0.020	9549063
Total Barium (Ba)	ug/L	-	27.6	9547823	17.7	24.4	26.4	36.0	0.050	9549063
Total Beryllium (Be)	ug/L	-	0.019	9547823	0.036	0.034	0.026	0.044	0.010	9549063
Total Bismuth (Bi)	ug/L	-	<0.010	9547823	<0.010	<0.010	<0.010	<0.010	0.010	9549063
Total Boron (B)	ug/L	-	<10	9547823	<10	<10	<10	<10	10	9549063
Total Cadmium (Cd)	ug/L	-	0.0140	9547823	0.0136	0.0067	0.0204	0.0165	0.0050	9549063
Total Chromium (Cr)	ug/L	20	0.83	9547823	1.08	0.88	0.83	0.99	0.10	9549063
Total Cobalt (Co)	ug/L	-	0.217	9547823	0.280	0.211	0.200	0.300	0.010	9549063
Total Copper (Cu)	ug/L	-	2.43	9547823	2.40	2.13	2.67	2.32	0.10	9549063
Total Iron (Fe)	ug/L	-	481	9547823	705	373	398	516	5.0	9549063
Total Lead (Pb)	ug/L	-	0.203	9547823	0.211	0.124	0.123	0.333	0.020	9549063
Total Lithium (Li)	ug/L	-	1.10	9547823	0.89	0.64	1.14	0.51	0.50	9549063
Total Manganese (Mn)	ug/L	-	16.6	9547823	19.4	11.7	13.5	22.6	0.10	9549063
Total Molybdenum (Mo)	ug/L	-	0.217	9547823	0.083	0.360	0.228	0.315	0.050	9549063
Total Nickel (Ni)	ug/L	-	1.20	9547823	1.20	1.05	1.47	1.32	0.10	9549063
Total Phosphorus (P)	ug/L	-	15.3	9547823	16.6	12.2	12.0	17.9	5.0	9549063
Total Selenium (Se)	ug/L	-	0.085	9547823	0.054	0.063	0.092	0.066	0.040	9549063
Total Silicon (Si)	ug/L	-	5310	9547823	5640	5400	5440	4840	50	9549063
Total Silver (Ag)	ug/L	-	<0.010	9547823	<0.010	<0.010	<0.010	<0.010	0.010	9549063
Total Strontium (Sr)	ug/L	-	46.4	9547823	17.7	119	56.1	75.4	0.050	9549063
Total Thallium (Tl)	ug/L	-	0.0053	9547823	0.0061	0.0076	0.0073	0.0065	0.0020	9549063
Total Tin (Sn)	ug/L	-	<0.20	9547823	<0.20	<0.20	<0.20	<0.20	0.20	9549063
Total Titanium (Ti)	ug/L	-	17.1	9547823	15.3	16.7	11.7	15.5	2.0	9549063
Total Uranium (U)	ug/L	-	1.05	9547823	0.967	3.36	1.13	2.68	0.0050	9549063
Total Vanadium (V)	ug/L	-	1.24	9547823	1.49	0.91	1.01	1.21	0.20	9549063
Total Zinc (Zn)	ug/L	-	1.6	9547823	1.9	1.2	1.6	1.4	1.0	9549063
Total Zirconium (Zr)	ug/L	-	0.86	9547823	1.13	0.66	0.86	0.64	0.10	9549063
Total Sulphur (S)	ug/L	-	1700	9547823	<600	8270	4550	5930	600	9549063
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			WH0629	WH0630	WH0631	WH0632	WH0633		
Sampling Date			2019/08/07 15:45	2019/08/07 16:52	2019/08/07 14:43	2019/08/07 14:20	2019/08/08 09:15		
COC Number			16219	16219	16219	16219	16219		
	UNITS	Criteria	ML-B	ML-C (or YT-24-2)	ML-1.0 (or YT-24-1)	YT-24 Mix	YUK-2.0	RDL	QC Batch

Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	-	466	431	324	316	262	3.0	9549063
Total Antimony (Sb)	ug/L	-	0.368	0.372	0.297	0.282	0.110	0.020	9549063
Total Arsenic (As)	ug/L	-	1.08	1.16	0.892	0.904	0.626	0.020	9549063
Total Barium (Ba)	ug/L	-	32.6	24.0	38.4	37.2	48.3	0.050	9549063
Total Beryllium (Be)	ug/L	-	0.045	0.033	0.026	0.029	<0.010	0.010	9549063
Total Bismuth (Bi)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9549063
Total Boron (B)	ug/L	-	<10	<10	<10	<10	<10	10	9549063
Total Cadmium (Cd)	ug/L	-	0.0127	0.0127	0.0103	0.0118	0.0482	0.0050	9549063
Total Chromium (Cr)	ug/L	20	1.10	1.04	0.85	0.83	0.49	0.10	9549063
Total Cobalt (Co)	ug/L	-	0.295	0.291	0.226	0.218	0.186	0.010	9549063
Total Copper (Cu)	ug/L	-	2.51	2.08	2.59	2.35	1.28	0.10	9549063
Total Iron (Fe)	ug/L	-	569	498	407	411	348	5.0	9549063
Total Lead (Pb)	ug/L	-	0.262	0.158	0.185	0.177	0.173	0.020	9549063
Total Lithium (Li)	ug/L	-	<0.50	<0.50	<0.50	<0.50	1.85	0.50	9549063
Total Manganese (Mn)	ug/L	-	20.5	18.4	12.7	12.8	16.5	0.10	9549063
Total Molybdenum (Mo)	ug/L	-	0.205	0.160	0.351	0.354	1.29	0.050	9549063
Total Nickel (Ni)	ug/L	-	1.22	1.05	1.05	1.02	1.50	0.10	9549063
Total Phosphorus (P)	ug/L	-	17.9	16.7	14.3	14.5	15.2	5.0	9549063
Total Selenium (Se)	ug/L	-	0.064	0.065	0.066	0.062	0.319	0.040	9549063
Total Silicon (Si)	ug/L	-	5170	4630	4740	4720	3020	50	9549063
Total Silver (Ag)	ug/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9549063
Total Strontium (Sr)	ug/L	-	44.6	21.8	96.8	94.3	123	0.050	9549063
Total Thallium (Tl)	ug/L	-	0.0072	0.0062	0.0056	0.0055	0.0054	0.0020	9549063
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9549063
Total Titanium (Ti)	ug/L	-	16.6	12.6	12.0	12.1	7.1	2.0	9549063
Total Uranium (U)	ug/L	-	1.66	0.357	2.22	2.17	0.944	0.0050	9549063
Total Vanadium (V)	ug/L	-	1.35	1.32	1.04	0.98	0.88	0.20	9549063
Total Zinc (Zn)	ug/L	-	1.5	1.3	1.0	1.1	5.0	1.0	9549063
Total Zirconium (Zr)	ug/L	-	0.74	0.60	0.61	0.59	<0.10	0.10	9549063
Total Sulphur (S)	ug/L	-	3440	697	8110	8300	7900	600	9549063

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			WH0634	WH0635	WH0636			WH0637	WH0638		
Sampling Date			2019/08/09 11:35	2019/08/08	2019/08/09			2019/08/09	2019/08/07		
COC Number			16219	16219	16219			16219	16219		
	UNITS	Criteria	YUK-5.0	Sample A	Sample B	RDL	QC Batch	Field Blank	Trip Blank	RDL	QC Batch

Total Metals by ICPMS											
Total Aluminum (Al)	ug/L	-	229	289	195	3.0	9549063	<0.50	<0.50	0.50	9548560
Total Antimony (Sb)	ug/L	-	0.114	0.128	0.283	0.020	9549063	<0.020	<0.020	0.020	9548560
Total Arsenic (As)	ug/L	-	0.602	0.559	1.51	0.020	9549063	<0.020	<0.020	0.020	9548560
Total Barium (Ba)	ug/L	-	45.7	30.5	23.1	0.050	9549063	<0.020	<0.020	0.020	9548560
Total Beryllium (Be)	ug/L	-	<0.010	0.027	0.034	0.010	9549063	<0.010	<0.010	0.010	9548560
Total Bismuth (Bi)	ug/L	-	<0.010	<0.010	<0.010	0.010	9549063	<0.0050	<0.0050	0.0050	9548560
Total Boron (B)	ug/L	-	<10	<10	<10	10	9549063	<10	<10	10	9548560
Total Cadmium (Cd)	ug/L	-	0.0381	0.0110	0.0050	0.0050	9549063	<0.0050	<0.0050	0.0050	9548560
Total Chromium (Cr)	ug/L	20	0.40	0.74	0.63	0.10	9549063	<0.10	<0.10	0.10	9548560
Total Cobalt (Co)	ug/L	-	0.162	0.169	0.132	0.010	9549063	<0.0050	<0.0050	0.0050	9548560
Total Copper (Cu)	ug/L	-	1.09	2.92	1.94	0.10	9549063	<0.050	<0.050	0.050	9548560
Total Iron (Fe)	ug/L	-	313	314	208	5.0	9549063	<1.0	<1.0	1.0	9548560
Total Lead (Pb)	ug/L	-	0.146	0.072	0.068	0.020	9549063	<0.0050	<0.0050	0.0050	9548560
Total Lithium (Li)	ug/L	-	1.67	0.89	0.54	0.50	9549063	<0.50	<0.50	0.50	9548560
Total Manganese (Mn)	ug/L	-	15.6	10.9	7.38	0.10	9549063	<0.050	<0.050	0.050	9548560
Total Molybdenum (Mo)	ug/L	-	1.20	0.579	0.356	0.050	9549063	<0.050	<0.050	0.050	9548560
Total Nickel (Ni)	ug/L	-	1.31	1.30	0.86	0.10	9549063	<0.020	<0.020	0.020	9548560
Total Phosphorus (P)	ug/L	-	13.7	9.8	8.1	5.0	9549063	2.0	<2.0	2.0	9548560
Total Selenium (Se)	ug/L	-	0.272	0.092	0.057	0.040	9549063	<0.040	<0.040	0.040	9548560
Total Silicon (Si)	ug/L	-	2870	5510	5080	50	9549063	<50	<50	50	9548560
Total Silver (Ag)	ug/L	-	<0.010	<0.010	<0.010	0.010	9549063	<0.0050	<0.0050	0.0050	9548560
Total Strontium (Sr)	ug/L	-	119	60.4	121	0.050	9549063	<0.050	<0.050	0.050	9548560
Total Thallium (Tl)	ug/L	-	0.0052	0.0063	0.0052	0.0020	9549063	<0.0020	<0.0020	0.0020	9548560
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	0.20	9549063	<0.20	<0.20	0.20	9548560
Total Titanium (Ti)	ug/L	-	7.1	8.2	7.1	2.0	9549063	<0.50	<0.50	0.50	9548560
Total Uranium (U)	ug/L	-	0.989	2.09	3.28	0.0050	9549063	<0.0020	<0.0020	0.0020	9548560
Total Vanadium (V)	ug/L	-	0.83	0.89	0.60	0.20	9549063	0.21	<0.20	0.20	9548560
Total Zinc (Zn)	ug/L	-	4.2	1.0	<1.0	1.0	9549063	<0.10	<0.10	0.10	9548560
Total Zirconium (Zr)	ug/L	-	<0.10	0.66	0.66	0.10	9549063	<0.10	<0.10	0.10	9548560
Total Sulphur (S)	ug/L	-	7170	6000	7950	600	9549063				

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0606	WH0607	WH0608	WH0609	WH0610	WH0611		
Sampling Date			2019/08/08 10:35	2019/08/08 14:00	2019/08/08 14:45	2019/08/08 11:05	2019/08/09 10:50	2019/08/08 17:25		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	CC-0.5	CC-1.0	CC-1.5	CC-3.5	CC-4.5	CC-6.0	RDL	QC Batch

Calculated Parameters

Dissolved Hardness (CaCO ₃)	mg/L	-	47.0	343	56.6	58.6	58.8	8.50	0.50	9545345
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Elements

Dissolved Mercury (Hg)	ug/L	-	0.0056	<0.0020	0.0065	0.0063	0.0051	0.0061	0.0020	9546100
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Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	ug/L	-	176	14.0	199	184	126	207	0.50	9546180
Dissolved Antimony (Sb)	ug/L	-	0.130	0.183	0.107	0.112	0.109	0.074	0.020	9546180
Dissolved Arsenic (As)	ug/L	-	0.492	1.05	0.567	0.420	0.423	0.330	0.020	9546180
Dissolved Barium (Ba)	ug/L	-	28.0	78.9	20.9	25.7	32.1	10.0	0.020	9546180
Dissolved Beryllium (Be)	ug/L	-	0.024	<0.010	0.037	0.027	0.011	0.033	0.010	9546180
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9546180
Dissolved Boron (B)	ug/L	-	<10	<10	<10	<10	<10	<10	10	9546180
Dissolved Cadmium (Cd)	ug/L	-	0.0106	<0.0050	0.0537 (1)	0.0107	0.0091	0.0086	0.0050	9546180
Dissolved Chromium (Cr)	ug/L	20	0.55	0.20	0.58	0.63	0.52	0.48	0.10	9546180
Dissolved Cobalt (Co)	ug/L	-	0.113	0.0476	0.118	0.135	0.0888	0.0908	0.0050	9546180
Dissolved Copper (Cu)	ug/L	-	2.75	0.774	1.83	1.92	2.46	1.53	0.050	9546180
Dissolved Iron (Fe)	ug/L	-	161	7.8	151	174	110	157	1.0	9546180
Dissolved Lead (Pb)	ug/L	-	0.0102	0.0054	0.0122	0.0118	0.0074	0.0204	0.0050	9546180
Dissolved Lithium (Li)	ug/L	-	0.79	4.15	0.99	0.65	0.66	<0.50	0.50	9546180
Dissolved Manganese (Mn)	ug/L	-	7.16	1.96	16.9	11.6	4.91	19.3	0.050	9546180
Dissolved Molybdenum (Mo)	ug/L	-	0.582	0.327	0.101	0.131	0.689	<0.050	0.050	9546180
Dissolved Nickel (Ni)	ug/L	-	1.16	0.464	0.732	0.758	1.01	0.785	0.020	9546180
Dissolved Phosphorus (P)	ug/L	-	6.7	6.3	37.1 (1)	8.8	7.9	8.0	2.0	9546180
Dissolved Selenium (Se)	ug/L	-	0.105	0.280	0.079	0.072	0.083	0.049	0.040	9546180
Dissolved Silicon (Si)	ug/L	-	5190	5060	4850	4960	5020	4520	50	9546180
Dissolved Silver (Ag)	ug/L	-	0.0060	<0.0050	0.0079	<0.0050	<0.0050	<0.0050	0.0050	9546180
Dissolved Strontium (Sr)	ug/L	-	59.0	908	116	113	84.5	13.1	0.050	9546180
Dissolved Thallium (Tl)	ug/L	-	0.0052	0.0035	0.0030	0.0030	0.0048	<0.0020	0.0020	9546180
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9546180
Dissolved Titanium (Ti)	ug/L	-	1.63	0.52	1.28	1.61	1.03	1.30	0.50	9546180

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0606	WH0607	WH0608	WH0609	WH0610	WH0611		
Sampling Date			2019/08/08 10:35	2019/08/08 14:00	2019/08/08 14:45	2019/08/08 11:05	2019/08/09 10:50	2019/08/08 17:25		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	CC-0.5	CC-1.0	CC-1.5	CC-3.5	CC-4.5	CC-6.0	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	1.92	23.7	3.26	2.48	2.14	0.412	0.0020	9546180
Dissolved Vanadium (V)	ug/L	-	0.65	0.44	0.61	0.63	0.58	0.52	0.20	9546180
Dissolved Zinc (Zn)	ug/L	-	0.53	0.78	1.56	0.62	0.46	0.67	0.10	9546180
Dissolved Zirconium (Zr)	ug/L	-	0.85	0.12	0.95	1.19	0.75	0.86	0.10	9546180
Dissolved Calcium (Ca)	mg/L	-	12.1	87.6	14.8	15.7	15.1	2.32	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	4.11	30.1	4.79	4.73	5.10	0.658	0.050	9545346
Dissolved Potassium (K)	mg/L	-	0.764	4.65	0.816	1.01	0.929	0.060	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	2.26	4.10	1.52	1.89	2.46	0.739	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	6.0	46.3	7.6	7.9	8.0	<3.0	3.0	9545346
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit										



BUREAU
VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0612	WH0613	WH0614	WH0615	WH0616	WH0617		
Sampling Date			2019/08/08 17:00	2019/08/08 16:30	2019/08/09 10:25	2019/08/08 09:45	2019/08/08 13:30	2019/08/10 10:30		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	CC-A	CC-B	CC-X	Coffee Mix	Latte Mix	HC-2.5	RDL	QC Batch

Calculated Parameters

Dissolved Hardness (CaCO ₃)	mg/L	-	18.4	52.1	59.0	54.6	50.5	53.0	0.50	9545345
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Elements

Dissolved Mercury (Hg)	ug/L	-	0.0063	0.0062	0.0051	0.0051	0.0058	0.0050	0.0020	9546100
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Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	ug/L	-	209	183	123	149	172	167	0.50	9546180
Dissolved Antimony (Sb)	ug/L	-	0.099	0.097	0.116	0.105	0.129	0.274	0.020	9546180
Dissolved Arsenic (As)	ug/L	-	0.493	0.514	0.432	0.480	0.446	1.04	0.020	9546180
Dissolved Barium (Ba)	ug/L	-	12.5	19.9	32.4	30.8	26.9	26.2	0.020	9546180
Dissolved Beryllium (Be)	ug/L	-	0.038	0.021	0.020	0.015	0.017	0.024	0.010	9546180
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9546180
Dissolved Boron (B)	ug/L	-	<10	<10	<10	<10	<10	<10	10	9546180
Dissolved Cadmium (Cd)	ug/L	-	0.0093	0.0119	0.0104	0.0083	0.0070	0.0070	0.0050	9546180
Dissolved Chromium (Cr)	ug/L	20	0.57	0.53	0.51	0.51	0.60	0.66	0.10	9546180
Dissolved Cobalt (Co)	ug/L	-	0.108	0.127	0.0858	0.101	0.112	0.114	0.0050	9546180
Dissolved Copper (Cu)	ug/L	-	1.76	1.79	2.44	2.50	2.57	1.70	0.050	9546180
Dissolved Iron (Fe)	ug/L	-	152	151	109	140	158	139	1.0	9546180
Dissolved Lead (Pb)	ug/L	-	0.0139	0.0140	0.0086	0.0084	0.0100	0.0151	0.0050	9546180
Dissolved Lithium (Li)	ug/L	-	0.58	0.82	0.63	0.64	0.70	0.83	0.50	9546180
Dissolved Manganese (Mn)	ug/L	-	15.8	15.9	4.67	6.23	7.79	6.65	0.050	9546180
Dissolved Molybdenum (Mo)	ug/L	-	<0.050	0.098	0.537	0.491	0.457	0.683	0.050	9546180
Dissolved Nickel (Ni)	ug/L	-	0.744	0.727	1.03	1.08	1.14	0.855	0.020	9546180
Dissolved Phosphorus (P)	ug/L	-	7.2	7.6	5.8	6.1	7.4	7.9	2.0	9546180
Dissolved Selenium (Se)	ug/L	-	0.056	0.063	0.094	0.076	0.108	0.079	0.040	9546180
Dissolved Silicon (Si)	ug/L	-	4710	5470	4990	4970	5030	5000	50	9546180
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9546180
Dissolved Strontium (Sr)	ug/L	-	31.4	110	84.5	78.0	73.2	150	0.050	9546180
Dissolved Thallium (Tl)	ug/L	-	0.0023	0.0027	0.0043	0.0035	0.0051	0.0034	0.0020	9546180
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9546180
Dissolved Titanium (Ti)	ug/L	-	1.22	1.23	1.20	1.40	1.94	1.66	0.50	9546180
Dissolved Uranium (U)	ug/L	-	1.05	2.78	2.05	1.85	2.09	11.0	0.0020	9546180

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0612	WH0613	WH0614	WH0615	WH0616	WH0617		
Sampling Date			2019/08/08 17:00	2019/08/08 16:30	2019/08/09 10:25	2019/08/08 09:45	2019/08/08 13:30	2019/08/10 10:30		
COC Number			16219	16219	16219	16219	16219	16219		
	UNITS	Criteria	CC-A	CC-B	CC-X	Coffee Mix	Latte Mix	HC-2.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	-	0.56	0.57	0.56	0.54	0.70	0.63	0.20	9546180
Dissolved Zinc (Zn)	ug/L	-	1.24	0.70	0.39	0.47	0.58	0.64	0.10	9546180
Dissolved Zirconium (Zr)	ug/L	-	0.97	1.00	0.82	0.89	0.85	0.89	0.10	9546180
Dissolved Calcium (Ca)	mg/L	-	5.14	13.9	15.3	14.1	13.1	14.1	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	1.34	4.25	5.05	4.71	4.29	4.34	0.050	9545346
Dissolved Potassium (K)	mg/L	-	0.244	0.842	0.933	0.874	0.834	1.12	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	1.06	1.48	2.47	2.34	2.20	1.65	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	<3.0	7.2	8.1	7.6	6.5	4.6	3.0	9545346
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										

BUREAU
VERITASBV Labs Job #: B966469
Report Date: 2019/08/20Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT**LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)**

BV Labs ID			WH0618	WH0619	WH0620	WH0621		WH0622		
Sampling Date			2019/08/07 17:40	2019/08/10 08:10	2019/08/10 08:50	2019/08/10 09:40		2019/08/07 17:30		
COC Number			16219	16219	16219	16219		16219		
	UNITS	Criteria	HC-5.0	HC-A	HC-B	HC-C	QC Batch	Halfway Mix	RDL	QC Batch

Calculated Parameters

Dissolved Hardness (CaCO ₃)	mg/L	-	56.9	74.8	67.0	61.6	9545345	60.1	0.50	9545345
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Elements

Dissolved Mercury (Hg)	ug/L	-	0.0046	0.0038	0.0043	0.0047	9546100	0.0033	0.0020	9546352
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Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	ug/L	-	134	74.9	93.8	121	9546180	120	0.50	9546180
Dissolved Antimony (Sb)	ug/L	-	0.215	0.249	0.295	0.290	9546180	0.220	0.020	9546180
Dissolved Arsenic (As)	ug/L	-	0.802	0.728	0.866	0.978	9546180	0.794	0.020	9546180
Dissolved Barium (Ba)	ug/L	-	27.6	31.7	27.0	26.2	9546180	29.2	0.020	9546180
Dissolved Beryllium (Be)	ug/L	-	0.026	0.019	0.030	0.029	9546180	0.022	0.010	9546180
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	9546180	<0.0050	0.0050	9546180
Dissolved Boron (B)	ug/L	-	<10	<10	<10	<10	9546180	<10	10	9546180
Dissolved Cadmium (Cd)	ug/L	-	<0.0050	<0.0050	0.0058	0.0062	9546180	0.0058	0.0050	9546180
Dissolved Chromium (Cr)	ug/L	20	0.58	0.46	0.45	0.53	9546180	0.53	0.10	9546180
Dissolved Cobalt (Co)	ug/L	-	0.0961	0.0611	0.0682	0.0905	9546180	0.0838	0.0050	9546180
Dissolved Copper (Cu)	ug/L	-	1.88	1.73	1.61	1.62	9546180	1.73	0.050	9546180
Dissolved Iron (Fe)	ug/L	-	129	69.1	85.8	104	9546180	117	1.0	9546180
Dissolved Lead (Pb)	ug/L	-	0.0141	<0.0050	0.0119	0.0073	9546180	0.0163	0.0050	9546180
Dissolved Lithium (Li)	ug/L	-	0.75	0.83	0.84	0.78	9546180	0.77	0.50	9546180
Dissolved Manganese (Mn)	ug/L	-	3.52	1.43	2.41	3.03	9546180	4.73	0.050	9546180
Dissolved Molybdenum (Mo)	ug/L	-	0.453	0.559	0.693	0.697	9546180	0.562	0.050	9546180
Dissolved Nickel (Ni)	ug/L	-	0.864	0.750	0.772	0.791	9546180	0.862	0.020	9546180
Dissolved Phosphorus (P)	ug/L	-	7.2	6.5	7.0	5.8	9546180	5.4	2.0	9546180
Dissolved Selenium (Se)	ug/L	-	0.064	0.056	0.049	0.061	9546180	0.092	0.040	9546180
Dissolved Silicon (Si)	ug/L	-	4770	4760	4860	5200	9546180	4340	50	9546180
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	9546180	<0.0050	0.0050	9546180
Dissolved Strontium (Sr)	ug/L	-	135	191	170	161	9546180	131	0.050	9546180
Dissolved Thallium (Tl)	ug/L	-	0.0031	0.0036	0.0025	0.0034	9546180	0.0032	0.0020	9546180
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	9546180	<0.20	0.20	9546180
Dissolved Titanium (Ti)	ug/L	-	1.36	1.13	1.53	1.39	9546180	1.57	0.50	9546180
Dissolved Uranium (U)	ug/L	-	5.05	7.41	10.3	10.5	9546180	4.51	0.0020	9546180

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0618	WH0619	WH0620	WH0621		WH0622		
Sampling Date			2019/08/07 17:40	2019/08/10 08:10	2019/08/10 08:50	2019/08/10 09:40		2019/08/07 17:30		
COC Number			16219	16219	16219	16219		16219		
	UNITS	Criteria	HC-5.0	HC-A	HC-B	HC-C	QC Batch	Halfway Mix	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	-	0.65	0.56	0.55	0.55	9546180	0.70	0.20	9546180
Dissolved Zinc (Zn)	ug/L	-	0.31	0.39	0.68	0.23	9546180	0.29	0.10	9546180
Dissolved Zirconium (Zr)	ug/L	-	0.83	0.67	0.69	0.79	9546180	0.73	0.10	9546180
Dissolved Calcium (Ca)	mg/L	-	15.2	19.7	17.3	16.1	9545346	16.2	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	4.60	6.22	5.76	5.19	9545346	4.76	0.050	9545346
Dissolved Potassium (K)	mg/L	-	1.23	1.52	1.18	1.19	9545346	1.17	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	1.86	2.40	2.05	1.88	9545346	1.83	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	5.0	7.4	6.2	5.6	9545346	5.4	3.0	9545346
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										

BUREAU
VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0623	WH0624	WH0625		WH0626		
Sampling Date			2019/08/09 16:40	2019/08/09 15:20	2019/08/09 14:30		2019/08/09 13:25		
COC Number			16219	16219	16219		16219		
	UNITS	Criteria	IC-0.5	IC-1.5	IC-2.5	QC Batch	IC-3.0	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	-	45.8	31.4	12.9	9545345	66.5	0.50	9545345
Elements									
Dissolved Mercury (Hg)	ug/L	-	0.0051	0.0069	0.0058	9546100	0.0045	0.0020	9546100
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	-	227	200	248	9546180	101	0.50	9546190
Dissolved Antimony (Sb)	ug/L	-	0.098	0.125	0.145	9546180	0.280	0.020	9546190
Dissolved Arsenic (As)	ug/L	-	0.532	0.311	0.856	9546180	1.22	0.020	9546190
Dissolved Barium (Ba)	ug/L	-	21.4	22.5	12.9	9546180	21.6	0.020	9546190
Dissolved Beryllium (Be)	ug/L	-	0.034	0.029	0.037	9546180	0.025	0.010	9546190
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	9546180	<0.0050	0.0050	9546190
Dissolved Boron (B)	ug/L	-	<10	<10	<10	9546180	<10	10	9546190
Dissolved Cadmium (Cd)	ug/L	-	0.0436	0.0084	0.0054	9546180	<0.0050	0.0050	9546190
Dissolved Chromium (Cr)	ug/L	20	0.76	0.55	0.78	9546180	0.44	0.10	9546190
Dissolved Cobalt (Co)	ug/L	-	0.264	0.0985	0.180	9546180	0.0652	0.0050	9546190
Dissolved Copper (Cu)	ug/L	-	3.42	2.10	2.11	9546180	1.74	0.050	9546190
Dissolved Iron (Fe)	ug/L	-	217	167	328	9546180	71.2	1.0	9546190
Dissolved Lead (Pb)	ug/L	-	0.0194	0.0228	0.0238	9546180	0.0078	0.0050	9546190
Dissolved Lithium (Li)	ug/L	-	1.05	1.00	0.62	9546180	<0.50	0.50	9546190
Dissolved Manganese (Mn)	ug/L	-	19.1	7.24	11.7	9546180	3.44	0.050	9546190
Dissolved Molybdenum (Mo)	ug/L	-	0.259	0.199	0.078	9546180	0.367	0.050	9546190
Dissolved Nickel (Ni)	ug/L	-	2.28	0.985	1.03	9546180	0.691	0.020	9546190
Dissolved Phosphorus (P)	ug/L	-	7.9	6.7	11.5	9546180	5.2	2.0	9546190
Dissolved Selenium (Se)	ug/L	-	0.163	0.072	0.065	9546180	0.067	0.040	9546190
Dissolved Silicon (Si)	ug/L	-	5320	4900	4930	9546180	4830	50	9546190
Dissolved Silver (Ag)	ug/L	-	0.0056	<0.0050	<0.0050	9546180	<0.0050	0.0050	9546190
Dissolved Strontium (Sr)	ug/L	-	42.2	46.0	18.2	9546180	118	0.050	9546190
Dissolved Thallium (Tl)	ug/L	-	0.0043	0.0033	<0.0020	9546180	0.0048	0.0020	9546190
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	9546180	<0.20	0.20	9546190
Dissolved Titanium (Ti)	ug/L	-	2.14	1.81	2.85	9546180	0.92	0.50	9546190
Dissolved Uranium (U)	ug/L	-	0.790	0.913	0.782	9546180	3.23	0.0020	9546190
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit									



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BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0623	WH0624	WH0625		WH0626		
Sampling Date			2019/08/09 16:40	2019/08/09 15:20	2019/08/09 14:30		2019/08/09 13:25		
COC Number			16219	16219	16219		16219		
	UNITS	Criteria	IC-0.5	IC-1.5	IC-2.5	QC Batch	IC-3.0	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	-	0.95	0.66	0.98	9546180	0.42	0.20	9546190
Dissolved Zinc (Zn)	ug/L	-	2.77	0.51	1.61	9546180	0.15	0.10	9546190
Dissolved Zirconium (Zr)	ug/L	-	1.11	1.06	1.50	9546180	0.89	0.10	9546190
Dissolved Calcium (Ca)	mg/L	-	11.9	8.73	3.52	9545346	20.9	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	3.87	2.33	0.993	9545346	3.48	0.050	9545346
Dissolved Potassium (K)	mg/L	-	0.567	0.564	0.124	9545346	1.36	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	1.57	1.57	0.977	9545346	2.20	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	6.0	<3.0	<3.0	9545346	7.5	3.0	9545346
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit									

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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0627	WH0628		WH0629	WH0630		
Sampling Date			2019/08/09 12:05	2019/08/07 16:20		2019/08/07 15:45	2019/08/07 16:52		
COC Number			16219	16219		16219	16219		
	UNITS	Criteria	IC-4.5	ML-A	QC Batch	ML-B	ML-C (or YT-24-2)	RDL	QC Batch

Calculated Parameters									
Dissolved Hardness (CaCO ₃)	mg/L	-	41.8	52.6	9545345	34.8	23.8	0.50	9545345
Elements									
Dissolved Mercury (Hg)	ug/L	-	0.0056	0.0056	9546352	0.0058	0.0066	0.0020	9546140
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	-	173	145	9546190	173	218	0.50	9546190
Dissolved Antimony (Sb)	ug/L	-	0.097	0.290	9546190	0.311	0.339	0.020	9546190
Dissolved Arsenic (As)	ug/L	-	0.514	0.690	9546190	0.718	0.904	0.020	9546190
Dissolved Barium (Ba)	ug/L	-	23.5	29.9	9546190	24.9	19.2	0.020	9546190
Dissolved Beryllium (Be)	ug/L	-	0.022	0.029	9546190	0.023	0.031	0.010	9546190
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	9546190	<0.0050	<0.0050	0.0050	9546190
Dissolved Boron (B)	ug/L	-	<10	<10	9546190	<10	<10	10	9546190
Dissolved Cadmium (Cd)	ug/L	-	0.0159	0.0071	9546190	0.0078	0.0091	0.0050	9546190
Dissolved Chromium (Cr)	ug/L	20	0.79	0.57	9546190	0.68	0.76	0.10	9546190
Dissolved Cobalt (Co)	ug/L	-	0.0990	0.120	9546190	0.133	0.178	0.0050	9546190
Dissolved Copper (Cu)	ug/L	-	2.30	1.73	9546190	1.62	1.75	0.050	9546190
Dissolved Iron (Fe)	ug/L	-	171	134	9546190	164	282	1.0	9546190
Dissolved Lead (Pb)	ug/L	-	0.0137	0.0122	9546190	0.0129	0.0184	0.0050	9546190
Dissolved Lithium (Li)	ug/L	-	1.04	<0.50	9546190	<0.50	<0.50	0.50	9546190
Dissolved Manganese (Mn)	ug/L	-	7.73	9.71	9546190	12.6	14.2	0.050	9546190
Dissolved Molybdenum (Mo)	ug/L	-	0.229	0.333	9546190	0.190	0.147	0.050	9546190
Dissolved Nickel (Ni)	ug/L	-	1.38	0.771	9546190	0.778	0.759	0.020	9546190
Dissolved Phosphorus (P)	ug/L	-	6.4	7.6	9546190	13.0	9.9	2.0	9546190
Dissolved Selenium (Se)	ug/L	-	0.086	0.061	9546190	0.060	0.071	0.040	9546190
Dissolved Silicon (Si)	ug/L	-	5020	4610	9546190	4300	4390	50	9546190
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	9546190	<0.0050	<0.0050	0.0050	9546190
Dissolved Strontium (Sr)	ug/L	-	56.4	75.3	9546190	42.1	20.6	0.050	9546190
Dissolved Thallium (Tl)	ug/L	-	0.0034	0.0029	9546190	0.0027	0.0031	0.0020	9546190
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	9546190	<0.20	<0.20	0.20	9546190
Dissolved Titanium (Ti)	ug/L	-	1.57	1.42	9546190	2.06	2.86	0.50	9546190
Dissolved Uranium (U)	ug/L	-	1.03	2.50	9546190	1.33	0.312	0.0020	9546190

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0627	WH0628		WH0629	WH0630		
Sampling Date			2019/08/09 12:05	2019/08/07 16:20		2019/08/07 15:45	2019/08/07 16:52		
COC Number			16219	16219		16219	16219		
	UNITS	Criteria	IC-4.5	ML-A	QC Batch	ML-B	ML-C (or YT-24-2)	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	-	0.61	0.49	9546190	0.63	0.92	0.20	9546190
Dissolved Zinc (Zn)	ug/L	-	0.66	0.21	9546190	0.23	0.40	0.10	9546190
Dissolved Zirconium (Zr)	ug/L	-	1.05	0.86	9546190	0.94	0.80	0.10	9546190
Dissolved Calcium (Ca)	mg/L	-	11.5	14.0	9545346	10.3	7.54	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	3.16	4.27	9545346	2.19	1.22	0.050	9545346
Dissolved Potassium (K)	mg/L	-	0.685	0.740	9545346	0.579	0.512	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	1.81	1.69	9545346	1.19	1.00	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	4.1	5.9	9545346	3.0	<3.0	3.0	9545346
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0631		WH0632		WH0633	WH0634		
Sampling Date			2019/08/07 14:43		2019/08/07 14:20		2019/08/08 09:15	2019/08/09 11:35		
COC Number			16219		16219		16219	16219		
	UNITS	Criteria	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	QC Batch	YUK-2.0	YUK-5.0	RDL	QC Batch

Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	-	61.4	9545345	70.2	9545345	83.8	81.0	0.50	9545345
Elements										
Dissolved Mercury (Hg)	ug/L	-	0.0049	9546140	0.0035	9546140	<0.0020	<0.0020	0.0020	9546352
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	-	117	9546190	83.5	9546190	18.1	18.0	0.50	9546190
Dissolved Antimony (Sb)	ug/L	-	0.269	9546190	0.189	9546190	0.094	0.132	0.020	9546190
Dissolved Arsenic (As)	ug/L	-	0.703	9546190	0.646	9546190	0.462	0.438	0.020	9546190
Dissolved Barium (Ba)	ug/L	-	32.7	9546190	33.4	9546190	38.6	38.0	0.020	9546190
Dissolved Beryllium (Be)	ug/L	-	0.017	9546190	<0.010	9546190	<0.010	<0.010	0.010	9546190
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	9546190	<0.0050	9546190	<0.0050	<0.0050	0.0050	9546190
Dissolved Boron (B)	ug/L	-	<10	9546190	<10	9546190	<10	<10	10	9546190
Dissolved Cadmium (Cd)	ug/L	-	0.0072	9546190	0.0135	9546190	0.0184	0.0156	0.0050	9546190
Dissolved Chromium (Cr)	ug/L	20	0.58	9546190	0.45	9546190	<0.10	0.13	0.10	9546190
Dissolved Cobalt (Co)	ug/L	-	0.103	9546190	0.0749	9546190	0.0097	0.0174	0.0050	9546190
Dissolved Copper (Cu)	ug/L	-	1.76	9546190	1.47	9546190	0.536	0.598	0.050	9546190
Dissolved Iron (Fe)	ug/L	-	120	9546190	82.7	9546190	4.6	6.8	1.0	9546190
Dissolved Lead (Pb)	ug/L	-	0.0166	9546190	0.0125	9546190	<0.0050	<0.0050	0.0050	9546190
Dissolved Lithium (Li)	ug/L	-	<0.50	9546190	0.71	9546190	1.65	1.46	0.50	9546190
Dissolved Manganese (Mn)	ug/L	-	6.45	9546190	6.48	9546190	1.32	1.86	0.050	9546190
Dissolved Molybdenum (Mo)	ug/L	-	0.351	9546190	0.664	9555631	1.24	1.25	0.050	9546190
Dissolved Nickel (Ni)	ug/L	-	0.774	9546190	0.675	9546190	0.524	0.564	0.020	9546190
Dissolved Phosphorus (P)	ug/L	-	6.7	9546190	5.2	9546190	2.5	2.3	2.0	9546190
Dissolved Selenium (Se)	ug/L	-	0.073	9546190	0.135	9546190	0.322	0.256	0.040	9546190
Dissolved Silicon (Si)	ug/L	-	4250	9546190	3730	9546190	2520	2600	50	9546190
Dissolved Silver (Ag)	ug/L	-	<0.0050	9546190	<0.0050	9546190	<0.0050	<0.0050	0.0050	9546190
Dissolved Strontium (Sr)	ug/L	-	94.5	9546190	103	9546190	116	113	0.050	9546190
Dissolved Thallium (Tl)	ug/L	-	0.0028	9546190	0.0023	9546190	0.0027	0.0023	0.0020	9546190
Dissolved Tin (Sn)	ug/L	-	<0.20	9546190	<0.20	9546190	<0.20	<0.20	0.20	9546190
Dissolved Titanium (Ti)	ug/L	-	1.88	9546190	1.01	9546190	<0.50	<0.50	0.50	9546190
Dissolved Uranium (U)	ug/L	-	2.05	9546190	1.87	9546190	0.916	0.962	0.0020	9546190

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0631		WH0632		WH0633	WH0634		
Sampling Date			2019/08/07 14:43		2019/08/07 14:20		2019/08/08 09:15	2019/08/09 11:35		
COC Number			16219		16219		16219	16219		
	UNITS	Criteria	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	QC Batch	YUK-2.0	YUK-5.0	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	-	0.61	9546190	0.58	9546190	0.27	0.32	0.20	9546190
Dissolved Zinc (Zn)	ug/L	-	0.36	9546190	0.81	9546190	0.46	0.40	0.10	9546190
Dissolved Zirconium (Zr)	ug/L	-	0.73	9546190	0.52	9546190	<0.10	<0.10	0.10	9546190
Dissolved Calcium (Ca)	mg/L	-	16.8	9545346	19.4	9545346	23.2	22.4	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	4.71	9545346	5.28	9545346	6.29	6.09	0.050	9545346
Dissolved Potassium (K)	mg/L	-	0.997	9545346	0.934	9545346	0.738	0.748	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	1.94	9545346	1.95	9545346	1.73	1.79	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	7.4	9545346	7.3	9545346	7.6	7.0	3.0	9545346
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0635	WH0636	WH0637	WH0638		
Sampling Date			2019/08/08	2019/08/09	2019/08/09	2019/08/07		
COC Number			16219	16219	16219	16219		
	UNITS	Criteria	Sample A	Sample B	Field Blank	Trip Blank	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	-	46.9	66.3	<0.50	<0.50	0.50	9545345
Elements								
Dissolved Mercury (Hg)	ug/L	-	0.0055	0.0042	<0.0020	<0.0020	0.0020	9546352
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	-	179	100	<0.50	<0.50	0.50	9546190
Dissolved Antimony (Sb)	ug/L	-	0.082	0.283	<0.020	<0.020	0.020	9546190
Dissolved Arsenic (As)	ug/L	-	0.491	1.21	<0.020	<0.020	0.020	9546190
Dissolved Barium (Ba)	ug/L	-	28.3	21.5	<0.020	<0.020	0.020	9546190
Dissolved Beryllium (Be)	ug/L	-	0.011	0.018	<0.010	<0.010	0.010	9546190
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9546190
Dissolved Boron (B)	ug/L	-	<10	<10	<10	<10	10	9546190
Dissolved Cadmium (Cd)	ug/L	-	0.0088	0.0050	<0.0050	<0.0050	0.0050	9546190
Dissolved Chromium (Cr)	ug/L	20	0.56	0.49	<0.10	<0.10	0.10	9546190
Dissolved Cobalt (Co)	ug/L	-	0.102	0.0722	<0.0050	<0.0050	0.0050	9546190
Dissolved Copper (Cu)	ug/L	-	2.56	1.77	<0.050	<0.050	0.050	9546190
Dissolved Iron (Fe)	ug/L	-	162	73.1	<1.0	<1.0	1.0	9546190
Dissolved Lead (Pb)	ug/L	-	0.0077	0.0055	<0.0050	<0.0050	0.0050	9546190
Dissolved Lithium (Li)	ug/L	-	0.77	<0.50	<0.50	<0.50	0.50	9546190
Dissolved Manganese (Mn)	ug/L	-	6.92	3.42	<0.050	<0.050	0.050	9546190
Dissolved Molybdenum (Mo)	ug/L	-	0.589	0.354	<0.050	<0.050	0.050	9546190
Dissolved Nickel (Ni)	ug/L	-	1.19	0.795	<0.020	<0.020	0.020	9546190
Dissolved Phosphorus (P)	ug/L	-	5.8	4.7	<2.0	<2.0	2.0	9546190
Dissolved Selenium (Se)	ug/L	-	0.087	0.059	<0.040	<0.040	0.040	9546190
Dissolved Silicon (Si)	ug/L	-	5220	4910	<50	<50	50	9546190
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9546190
Dissolved Strontium (Sr)	ug/L	-	59.8	116	<0.050	<0.050	0.050	9546190
Dissolved Thallium (Tl)	ug/L	-	0.0045	0.0035	<0.0020	<0.0020	0.0020	9546190
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	0.20	9546190
Dissolved Titanium (Ti)	ug/L	-	1.72	1.10	<0.50	<0.50	0.50	9546190
Dissolved Uranium (U)	ug/L	-	2.01	3.25	<0.0020	<0.0020	0.0020	9546190
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								



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VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WH0635	WH0636	WH0637	WH0638		
Sampling Date			2019/08/08	2019/08/09	2019/08/09	2019/08/07		
COC Number			16219	16219	16219	16219		
	UNITS	Criteria	Sample A	Sample B	Field Blank	Trip Blank	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	-	0.57	0.47	<0.20	<0.20	0.20	9546190
Dissolved Zinc (Zn)	ug/L	-	0.46	0.11	<0.10	<0.10	0.10	9546190
Dissolved Zirconium (Zr)	ug/L	-	0.81	0.82	<0.10	<0.10	0.10	9546190
Dissolved Calcium (Ca)	mg/L	-	12.2	20.7	<0.050	<0.050	0.050	9545346
Dissolved Magnesium (Mg)	mg/L	-	3.99	3.57	<0.050	<0.050	0.050	9545346
Dissolved Potassium (K)	mg/L	-	0.763	1.37	<0.050	<0.050	0.050	9545346
Dissolved Sodium (Na)	mg/L	-	2.24	2.24	<0.050	<0.050	0.050	9545346
Dissolved Sulphur (S)	mg/L	-	6.0	7.7	<3.0	<3.0	3.0	9545346
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID		WH0606	WH0607	WH0608	WH0609	WH0610	WH0611	WH0612		
Sampling Date		2019/08/08 10:35	2019/08/08 14:00	2019/08/08 14:45	2019/08/08 11:05	2019/08/09 10:50	2019/08/08 17:25	2019/08/08 17:00		
COC Number		16219	16219	16219	16219	16219	16219	16219		
	UNITS	CC-0.5	CC-1.0	CC-1.5	CC-3.5	CC-4.5	CC-6.0	CC-A	RDL	QC Batch

Calculated Parameters										
Total Hardness (CaCO ₃)	mg/L	46.1	342	54.2	56.3	57.5	9.23	19.3	0.50	9545641
Elements										
Total Mercury (Hg)	ug/L	0.0060	<0.0020	0.0059	0.0060	0.0053	0.0062	0.0066	0.0020	9546179
Total Metals by ICPMS										
Total Calcium (Ca)	mg/L	11.7	87.7	14.2	15.0	14.9	2.51	5.33	0.25	9545959
Total Magnesium (Mg)	mg/L	4.07	29.8	4.56	4.55	4.91	0.72	1.45	0.25	9545959
Total Potassium (K)	mg/L	0.77	4.57	0.76	0.99	0.92	<0.25	0.25	0.25	9545959
Total Sodium (Na)	mg/L	2.21	4.08	1.40	1.74	2.38	0.81	1.11	0.25	9545959
Total Sulphur (S)	mg/L	6.4	46.5	7.0	7.5	8.3	<3.0	<3.0	3.0	9545959
RDL = Reportable Detection Limit										

BV Labs ID		WH0613	WH0614	WH0615	WH0616	WH0617		WH0618		
Sampling Date		2019/08/08 16:30	2019/08/09 10:25	2019/08/08 09:45	2019/08/08 13:30	2019/08/10 10:30		2019/08/07 17:40		
COC Number		16219	16219	16219	16219	16219		16219		
	UNITS	CC-B	CC-X	Coffee Mix	Latte Mix	HC-2.5	QC Batch	HC-5.0	RDL	QC Batch

Calculated Parameters										
Total Hardness (CaCO ₃)	mg/L	53.5	59.3	56.1	49.8	53.2	9545641	58.6	0.50	9545641
Elements										
Total Mercury (Hg)	ug/L	0.0060	0.0047	0.0037	0.0055	0.0051	9546179	0.0025	0.0020	9546211
Total Metals by ICPMS										
Total Calcium (Ca)	mg/L	14.2	15.3	14.6	13.0	14.1	9545959	15.8	0.25	9545959
Total Magnesium (Mg)	mg/L	4.37	5.10	4.78	4.23	4.35	9545959	4.66	0.25	9545959
Total Potassium (K)	mg/L	0.88	0.96	0.91	0.84	1.19	9545959	1.34	0.25	9545959
Total Sodium (Na)	mg/L	1.47	2.43	2.30	2.12	1.61	9545959	1.88	0.25	9545959
Total Sulphur (S)	mg/L	7.4	8.4	8.0	6.2	4.7	9545959	5.3	3.0	9545959
RDL = Reportable Detection Limit										



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID		WH0619	WH0620		WH0621		WH0622		
Sampling Date		2019/08/10 08:10	2019/08/10 08:50		2019/08/10 09:40		2019/08/07 17:30		
COC Number		16219	16219		16219		16219		
	UNITS	HC-A	HC-B	QC Batch	HC-C	QC Batch	Halfway Mix	RDL	QC Batch

Calculated Parameters									
Total Hardness (CaCO ₃)	mg/L	74.9	67.5	9545641	63.1	9545641	61.4	0.50	9545641
Elements									
Total Mercury (Hg)	ug/L	<0.0020	0.0024	9546211	0.0052	9546179	<0.0020	0.0020	9546211
Total Metals by ICPMS									
Total Calcium (Ca)	mg/L	19.8	17.5	9545959	16.5	9545959	16.5	0.25	9545959
Total Magnesium (Mg)	mg/L	6.17	5.79	9545959	5.32	9545959	4.91	0.25	9545959
Total Potassium (K)	mg/L	1.60	1.25	9545959	1.26	9545959	1.30	0.25	9545959
Total Sodium (Na)	mg/L	2.29	2.04	9545959	1.86	9545959	1.87	0.25	9545959
Total Sulphur (S)	mg/L	7.6	6.4	9545959	5.7	9545959	5.3	3.0	9545959
RDL = Reportable Detection Limit									

BV Labs ID		WH0623	WH0624	WH0625	WH0626	WH0627	WH0628		
Sampling Date		2019/08/09 16:40	2019/08/09 15:20	2019/08/09 14:30	2019/08/09 13:25	2019/08/09 12:05	2019/08/07 16:20		
COC Number		16219	16219	16219	16219	16219	16219		
	UNITS	IC-0.5	IC-1.5	IC-2.5	IC-3.0	IC-4.5	ML-A	RDL	QC Batch

Calculated Parameters									
Total Hardness (CaCO ₃)	mg/L	46.7	32.9	13.1	68.0	42.2	53.3	0.50	9545641
Elements									
Total Mercury (Hg)	ug/L	0.0044	0.0062	0.0048	0.0043	0.0051	0.0051	0.0020	9546179
Total Metals by ICPMS									
Total Calcium (Ca)	mg/L	12.3	9.09	3.58	21.2	11.7	14.3	0.25	9545959
Total Magnesium (Mg)	mg/L	3.89	2.47	1.01	3.66	3.17	4.30	0.25	9545959
Total Potassium (K)	mg/L	0.58	0.61	<0.25	1.48	0.71	0.77	0.25	9545959
Total Sodium (Na)	mg/L	1.54	1.58	0.98	2.24	1.80	1.71	0.25	9545959
Total Sulphur (S)	mg/L	6.0	<3.0	<3.0	8.3	4.6	5.9	3.0	9545959
RDL = Reportable Detection Limit									



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VERITAS

BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID		WH0629	WH0630	WH0631		WH0632		
Sampling Date		2019/08/07 15:45	2019/08/07 16:52	2019/08/07 14:43		2019/08/07 14:20		
COC Number		16219	16219	16219		16219		
	UNITS	ML-B	ML-C (or YT-24-2)	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	RDL	QC Batch

Calculated Parameters								
Total Hardness (CaCO ₃)	mg/L	37.9	21.4	62.8	9545641	61.1	0.50	9545641
Elements								
Total Mercury (Hg)	ug/L	0.0025	0.0033	<0.0020	9546211	0.0043	0.0020	9546179
Total Metals by ICPMS								
Total Calcium (Ca)	mg/L	11.2	6.41	17.2	9545959	16.8	0.25	9545959
Total Magnesium (Mg)	mg/L	2.41	1.30	4.81	9545959	4.63	0.25	9545959
Total Potassium (K)	mg/L	0.66	0.54	1.05	9545959	1.01	0.25	9545959
Total Sodium (Na)	mg/L	1.31	1.04	1.95	9545959	1.89	0.25	9545959
Total Sulphur (S)	mg/L	3.4	<3.0	8.1	9545959	8.3	3.0	9545959
RDL = Reportable Detection Limit								

BV Labs ID		WH0633	WH0634	WH0635	WH0636		WH0637	WH0638		
Sampling Date		2019/08/08 09:15	2019/08/09 11:35	2019/08/08	2019/08/09		2019/08/09	2019/08/07		
COC Number		16219	16219	16219	16219		16219	16219		
	UNITS	YUK-2.0	YUK-5.0	Sample A	Sample B	RDL	Field Blank	Trip Blank	RDL	QC Batch

Calculated Parameters										
Total Hardness (CaCO ₃)	mg/L	87.8	81.8	47.7	66.1	0.50	<0.50	<0.50	0.50	9545641
Elements										
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	0.0030	0.0025	0.0020	<0.0020	<0.0020	0.0020	9546211
Total Metals by ICPMS										
Total Calcium (Ca)	mg/L	24.3	22.5	12.5	20.6	0.25	<0.050	<0.050	0.050	9545959
Total Magnesium (Mg)	mg/L	6.55	6.25	4.00	3.55	0.25	<0.050	<0.050	0.050	9545959
Total Potassium (K)	mg/L	0.83	0.81	0.78	1.45	0.25	<0.050	<0.050	0.050	9545959
Total Sodium (Na)	mg/L	1.84	1.80	2.24	2.22	0.25	<0.050	<0.050	0.050	9545959
Total Sulphur (S)	mg/L	7.9	7.2	6.0	8.0	3.0	<3.0	<3.0	3.0	9545959
RDL = Reportable Detection Limit										



GENERAL COMMENTS

Sample WH0606 [CC-0.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0607 [CC-1.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0608 [CC-1.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0609 [CC-3.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0610 [CC-4.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0611 [CC-6.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0612 [CC-A] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0613 [CC-B] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0614 [CC-X] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0615 [Coffee Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method



specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0616 [Latte Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0617 [HC-2.5] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample WH0618 [HC-5.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0622 [Halfway Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0623 [IC-0.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0624 [IC-1.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0625 [IC-2.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0626 [IC-3.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0627 [IC-4.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0628 [ML-A] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0629 [ML-B] : Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).



Sample WH0630 [ML-C (or YT-24-2)] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0631 [ML-1.0 (or YT-24-1)] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0632 [YT-24 Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0633 [YUK-2.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0634 [YUK-5.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0635 [Sample A] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0636 [Sample B] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0637 [Field Blank] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level).

Sample WH0638 [Trip Blank] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab (low level). Sample received past method specified hold time for Orthophosphate by Konelab (low level).

Criteria: Gordcorp Discharge Permit - Water License Compliance Targets for Discharge from WWTP to Lagoon #3

Sample WH0632, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



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BV Labs Job #: B966469

Report Date: 2019/08/20

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9545509	SHI	Matrix Spike	Total Suspended Solids	2019/08/14		104	%	80 - 120
9545509	SHI	Spiked Blank	Total Suspended Solids	2019/08/14		105	%	80 - 120
9545509	SHI	Method Blank	Total Suspended Solids	2019/08/14	<1.0		mg/L	
9545509	SHI	RPD [WH0638-02]	Total Suspended Solids	2019/08/14	NC		%	20
9546100	JLP	Matrix Spike [WH0606-06]	Dissolved Mercury (Hg)	2019/08/13		88	%	80 - 120
9546100	JLP	Spiked Blank	Dissolved Mercury (Hg)	2019/08/13		91	%	80 - 120
9546100	JLP	Method Blank	Dissolved Mercury (Hg)	2019/08/13	<0.0020		ug/L	
9546100	JLP	RPD [WH0606-06]	Dissolved Mercury (Hg)	2019/08/13	0.71		%	20
9546140	JLP	Matrix Spike	Dissolved Mercury (Hg)	2019/08/13		88	%	80 - 120
9546140	JLP	Spiked Blank	Dissolved Mercury (Hg)	2019/08/13		100	%	80 - 120
9546140	JLP	Method Blank	Dissolved Mercury (Hg)	2019/08/13	<0.0020		ug/L	
9546140	JLP	RPD	Dissolved Mercury (Hg)	2019/08/13	NC		%	20
9546179	JLP	Matrix Spike [WH0606-07]	Total Mercury (Hg)	2019/08/14		88	%	80 - 120
9546179	JLP	Spiked Blank	Total Mercury (Hg)	2019/08/14		103	%	80 - 120
9546179	JLP	Method Blank	Total Mercury (Hg)	2019/08/14	<0.0020		ug/L	
9546179	JLP	RPD [WH0606-07]	Total Mercury (Hg)	2019/08/14	14		%	20
9546180	VBA	Matrix Spike [WH0606-08]	Dissolved Aluminum (Al)	2019/08/13		99	%	80 - 120
			Dissolved Antimony (Sb)	2019/08/13		99	%	80 - 120
			Dissolved Arsenic (As)	2019/08/13		100	%	80 - 120
			Dissolved Barium (Ba)	2019/08/13		103	%	80 - 120
			Dissolved Beryllium (Be)	2019/08/13		99	%	80 - 120
			Dissolved Bismuth (Bi)	2019/08/13		99	%	80 - 120
			Dissolved Boron (B)	2019/08/13		100	%	80 - 120
			Dissolved Cadmium (Cd)	2019/08/13		100	%	80 - 120
			Dissolved Chromium (Cr)	2019/08/13		101	%	80 - 120
			Dissolved Cobalt (Co)	2019/08/13		101	%	80 - 120
			Dissolved Copper (Cu)	2019/08/13		100	%	80 - 120
			Dissolved Iron (Fe)	2019/08/13		99	%	80 - 120
			Dissolved Lead (Pb)	2019/08/13		98	%	80 - 120
			Dissolved Lithium (Li)	2019/08/13		98	%	80 - 120
			Dissolved Manganese (Mn)	2019/08/13		101	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/08/13		101	%	80 - 120
			Dissolved Nickel (Ni)	2019/08/13		100	%	80 - 120
			Dissolved Phosphorus (P)	2019/08/13		105	%	80 - 120
			Dissolved Selenium (Se)	2019/08/13		101	%	80 - 120
			Dissolved Silicon (Si)	2019/08/13		NC	%	80 - 120
			Dissolved Silver (Ag)	2019/08/13		99	%	80 - 120
			Dissolved Strontium (Sr)	2019/08/13		NC	%	80 - 120
			Dissolved Thallium (Tl)	2019/08/13		103	%	80 - 120
			Dissolved Tin (Sn)	2019/08/13		102	%	80 - 120
			Dissolved Titanium (Ti)	2019/08/13		104	%	80 - 120
			Dissolved Uranium (U)	2019/08/13		102	%	80 - 120
			Dissolved Vanadium (V)	2019/08/13		102	%	80 - 120
			Dissolved Zinc (Zn)	2019/08/13		101	%	80 - 120
			Dissolved Zirconium (Zr)	2019/08/13		105	%	80 - 120
9546180	VBA	Spiked Blank	Dissolved Aluminum (Al)	2019/08/13		103	%	80 - 120
			Dissolved Antimony (Sb)	2019/08/13		101	%	80 - 120
			Dissolved Arsenic (As)	2019/08/13		100	%	80 - 120
			Dissolved Barium (Ba)	2019/08/13		101	%	80 - 120



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9546180	VBA	Method Blank	Dissolved Beryllium (Be)	2019/08/13		103	%	80 - 120
			Dissolved Bismuth (Bi)	2019/08/13		103	%	80 - 120
			Dissolved Boron (B)	2019/08/13		103	%	80 - 120
			Dissolved Cadmium (Cd)	2019/08/13		100	%	80 - 120
			Dissolved Chromium (Cr)	2019/08/13		103	%	80 - 120
			Dissolved Cobalt (Co)	2019/08/13		102	%	80 - 120
			Dissolved Copper (Cu)	2019/08/13		102	%	80 - 120
			Dissolved Iron (Fe)	2019/08/13		102	%	80 - 120
			Dissolved Lead (Pb)	2019/08/13		100	%	80 - 120
			Dissolved Lithium (Li)	2019/08/13		100	%	80 - 120
			Dissolved Manganese (Mn)	2019/08/13		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/08/13		102	%	80 - 120
			Dissolved Nickel (Ni)	2019/08/13		102	%	80 - 120
			Dissolved Phosphorus (P)	2019/08/13		104	%	80 - 120
			Dissolved Selenium (Se)	2019/08/13		100	%	80 - 120
			Dissolved Silicon (Si)	2019/08/13		103	%	80 - 120
			Dissolved Silver (Ag)	2019/08/13		100	%	80 - 120
			Dissolved Strontium (Sr)	2019/08/13		102	%	80 - 120
			Dissolved Thallium (Tl)	2019/08/13		102	%	80 - 120
			Dissolved Tin (Sn)	2019/08/13		102	%	80 - 120
			Dissolved Titanium (Ti)	2019/08/13		102	%	80 - 120
			Dissolved Uranium (U)	2019/08/13		104	%	80 - 120
			Dissolved Vanadium (V)	2019/08/13		102	%	80 - 120
			Dissolved Zinc (Zn)	2019/08/13		103	%	80 - 120
			Dissolved Zirconium (Zr)	2019/08/13		102	%	80 - 120
			Dissolved Aluminum (Al)	2019/08/13	<0.50		ug/L	
			Dissolved Antimony (Sb)	2019/08/13	<0.020		ug/L	
			Dissolved Arsenic (As)	2019/08/13	<0.020		ug/L	
			Dissolved Barium (Ba)	2019/08/13	<0.020		ug/L	
			Dissolved Beryllium (Be)	2019/08/13	<0.010		ug/L	
			Dissolved Bismuth (Bi)	2019/08/13	<0.0050		ug/L	
			Dissolved Boron (B)	2019/08/13	<10		ug/L	
			Dissolved Cadmium (Cd)	2019/08/13	<0.0050		ug/L	
			Dissolved Chromium (Cr)	2019/08/13	<0.10		ug/L	
			Dissolved Cobalt (Co)	2019/08/13	<0.0050		ug/L	
			Dissolved Copper (Cu)	2019/08/13	<0.050		ug/L	
			Dissolved Iron (Fe)	2019/08/13	<1.0		ug/L	
			Dissolved Lead (Pb)	2019/08/13	<0.0050		ug/L	
			Dissolved Lithium (Li)	2019/08/13	<0.50		ug/L	
			Dissolved Manganese (Mn)	2019/08/13	<0.050		ug/L	
			Dissolved Molybdenum (Mo)	2019/08/13	<0.050		ug/L	
			Dissolved Nickel (Ni)	2019/08/13	<0.020		ug/L	
			Dissolved Phosphorus (P)	2019/08/13	<2.0		ug/L	
			Dissolved Selenium (Se)	2019/08/13	<0.040		ug/L	
			Dissolved Silicon (Si)	2019/08/13	<50		ug/L	
			Dissolved Silver (Ag)	2019/08/13	<0.0050		ug/L	
			Dissolved Strontium (Sr)	2019/08/13	<0.050		ug/L	
			Dissolved Thallium (Tl)	2019/08/13	<0.0020		ug/L	
			Dissolved Tin (Sn)	2019/08/13	<0.20		ug/L	
			Dissolved Titanium (Ti)	2019/08/13	<0.50		ug/L	
			Dissolved Uranium (U)	2019/08/13	<0.0020		ug/L	
			Dissolved Vanadium (V)	2019/08/13	<0.20		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9546180	VBA	RPD [WH0606-08]	Dissolved Zinc (Zn)	2019/08/13	<0.10		ug/L	
			Dissolved Zirconium (Zr)	2019/08/13	<0.10		ug/L	
			Dissolved Aluminum (Al)	2019/08/13	1.5		%	20
			Dissolved Antimony (Sb)	2019/08/13	0.93		%	20
			Dissolved Arsenic (As)	2019/08/13	0.77		%	20
			Dissolved Barium (Ba)	2019/08/13	0.59		%	20
			Dissolved Beryllium (Be)	2019/08/13	NC		%	20
			Dissolved Bismuth (Bi)	2019/08/13	NC		%	20
			Dissolved Boron (B)	2019/08/13	NC		%	20
			Dissolved Cadmium (Cd)	2019/08/13	11		%	20
			Dissolved Chromium (Cr)	2019/08/13	0.34		%	20
			Dissolved Cobalt (Co)	2019/08/13	5.2		%	20
			Dissolved Copper (Cu)	2019/08/13	1.1		%	20
			Dissolved Iron (Fe)	2019/08/13	0.12		%	20
			Dissolved Lead (Pb)	2019/08/13	10		%	20
			Dissolved Lithium (Li)	2019/08/13	3.4		%	20
			Dissolved Manganese (Mn)	2019/08/13	0.61		%	20
			Dissolved Molybdenum (Mo)	2019/08/13	1.7		%	20
			Dissolved Nickel (Ni)	2019/08/13	1.7		%	20
			Dissolved Phosphorus (P)	2019/08/13	15		%	20
			Dissolved Selenium (Se)	2019/08/13	16		%	20
			Dissolved Silicon (Si)	2019/08/13	1.3		%	20
			Dissolved Silver (Ag)	2019/08/13	18		%	20
			Dissolved Strontium (Sr)	2019/08/13	1.7		%	20
			Dissolved Thallium (Tl)	2019/08/13	14		%	20
			Dissolved Tin (Sn)	2019/08/13	NC		%	20
			Dissolved Titanium (Ti)	2019/08/13	6.6		%	20
			Dissolved Uranium (U)	2019/08/13	1.8		%	20
			Dissolved Vanadium (V)	2019/08/13	9.2		%	20
			Dissolved Zinc (Zn)	2019/08/13	7.4		%	20
			Dissolved Zirconium (Zr)	2019/08/13	6.4		%	20
9546181	MO5	Matrix Spike [WH0613-01]	Nitrate plus Nitrite (N)	2019/08/13		90	%	80 - 120
9546181	MO5	Spiked Blank	Nitrate plus Nitrite (N)	2019/08/13		108	%	80 - 120
9546181	MO5	Method Blank	Nitrate plus Nitrite (N)	2019/08/13	<0.0020		mg/L	
9546181	MO5	RPD [WH0613-01]	Nitrate plus Nitrite (N)	2019/08/13	1.0		%	25
9546186	MO5	Matrix Spike [WH0613-01]	Nitrite (N)	2019/08/13		100	%	80 - 120
9546186	MO5	Spiked Blank	Nitrite (N)	2019/08/13		105	%	80 - 120
9546186	MO5	Method Blank	Nitrite (N)	2019/08/13	<0.0020		mg/L	
9546186	MO5	RPD [WH0613-01]	Nitrite (N)	2019/08/13	NC		%	25
9546190	VBA	Matrix Spike [WH0626-08]	Dissolved Aluminum (Al)	2019/08/13		104	%	80 - 120
			Dissolved Antimony (Sb)	2019/08/13		98	%	80 - 120
			Dissolved Arsenic (As)	2019/08/13		102	%	80 - 120
			Dissolved Barium (Ba)	2019/08/13		103	%	80 - 120
			Dissolved Beryllium (Be)	2019/08/13		103	%	80 - 120
			Dissolved Bismuth (Bi)	2019/08/13		102	%	80 - 120
			Dissolved Boron (B)	2019/08/13		105	%	80 - 120
			Dissolved Cadmium (Cd)	2019/08/13		97	%	80 - 120
			Dissolved Chromium (Cr)	2019/08/13		98	%	80 - 120
			Dissolved Cobalt (Co)	2019/08/13		96	%	80 - 120



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9546190	VBA	Spiked Blank	Dissolved Copper (Cu)	2019/08/13		95	%	80 - 120
			Dissolved Iron (Fe)	2019/08/13		100	%	80 - 120
			Dissolved Lead (Pb)	2019/08/13		101	%	80 - 120
			Dissolved Lithium (Li)	2019/08/13		105	%	80 - 120
			Dissolved Manganese (Mn)	2019/08/13		99	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/08/13		103	%	80 - 120
			Dissolved Nickel (Ni)	2019/08/13		97	%	80 - 120
			Dissolved Phosphorus (P)	2019/08/13		111	%	80 - 120
			Dissolved Selenium (Se)	2019/08/13		101	%	80 - 120
			Dissolved Silicon (Si)	2019/08/13		92	%	80 - 120
			Dissolved Silver (Ag)	2019/08/13		97	%	80 - 120
			Dissolved Strontium (Sr)	2019/08/13		NC	%	80 - 120
			Dissolved Thallium (Tl)	2019/08/13		104	%	80 - 120
			Dissolved Tin (Sn)	2019/08/13		98	%	80 - 120
			Dissolved Titanium (Ti)	2019/08/13		101	%	80 - 120
			Dissolved Uranium (U)	2019/08/13		108	%	80 - 120
			Dissolved Vanadium (V)	2019/08/13		99	%	80 - 120
			Dissolved Zinc (Zn)	2019/08/13		100	%	80 - 120
			Dissolved Zirconium (Zr)	2019/08/13		102	%	80 - 120
			Dissolved Aluminum (Al)	2019/08/13		105	%	80 - 120
			Dissolved Antimony (Sb)	2019/08/13		101	%	80 - 120
			Dissolved Arsenic (As)	2019/08/13		101	%	80 - 120
			Dissolved Barium (Ba)	2019/08/13		103	%	80 - 120
			Dissolved Beryllium (Be)	2019/08/13		106	%	80 - 120
			Dissolved Bismuth (Bi)	2019/08/13		105	%	80 - 120
			Dissolved Boron (B)	2019/08/13		108	%	80 - 120
			Dissolved Cadmium (Cd)	2019/08/13		100	%	80 - 120
			Dissolved Chromium (Cr)	2019/08/13		100	%	80 - 120
			Dissolved Cobalt (Co)	2019/08/13		98	%	80 - 120
			Dissolved Copper (Cu)	2019/08/13		98	%	80 - 120
			Dissolved Iron (Fe)	2019/08/13		105	%	80 - 120
			Dissolved Lead (Pb)	2019/08/13		104	%	80 - 120
			Dissolved Lithium (Li)	2019/08/13		106	%	80 - 120
			Dissolved Manganese (Mn)	2019/08/13		101	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/08/13		104	%	80 - 120
			Dissolved Nickel (Ni)	2019/08/13		99	%	80 - 120
			Dissolved Phosphorus (P)	2019/08/13		105	%	80 - 120
			Dissolved Selenium (Se)	2019/08/13		102	%	80 - 120
			Dissolved Silicon (Si)	2019/08/13		105	%	80 - 120
			Dissolved Silver (Ag)	2019/08/13		100	%	80 - 120
			Dissolved Strontium (Sr)	2019/08/13		104	%	80 - 120
			Dissolved Thallium (Tl)	2019/08/13		105	%	80 - 120
			Dissolved Tin (Sn)	2019/08/13		100	%	80 - 120
			Dissolved Titanium (Ti)	2019/08/13		102	%	80 - 120
			Dissolved Uranium (U)	2019/08/13		107	%	80 - 120
			Dissolved Vanadium (V)	2019/08/13		100	%	80 - 120
			Dissolved Zinc (Zn)	2019/08/13		101	%	80 - 120
			Dissolved Zirconium (Zr)	2019/08/13		100	%	80 - 120
9546190	VBA	Method Blank	Dissolved Aluminum (Al)	2019/08/13	<0.50		ug/L	
			Dissolved Antimony (Sb)	2019/08/13	<0.020		ug/L	
			Dissolved Arsenic (As)	2019/08/13	<0.020		ug/L	
			Dissolved Barium (Ba)	2019/08/13	<0.020		ug/L	



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9546190	VBA	RPD [WH0626-08]	Dissolved Beryllium (Be)	2019/08/13	<0.010		ug/L	
			Dissolved Bismuth (Bi)	2019/08/13	<0.0050		ug/L	
			Dissolved Boron (B)	2019/08/13	<10		ug/L	
			Dissolved Cadmium (Cd)	2019/08/13	<0.0050		ug/L	
			Dissolved Chromium (Cr)	2019/08/13	<0.10		ug/L	
			Dissolved Cobalt (Co)	2019/08/13	<0.0050		ug/L	
			Dissolved Copper (Cu)	2019/08/13	<0.050		ug/L	
			Dissolved Iron (Fe)	2019/08/13	<1.0		ug/L	
			Dissolved Lead (Pb)	2019/08/13	<0.0050		ug/L	
			Dissolved Lithium (Li)	2019/08/13	<0.50		ug/L	
			Dissolved Manganese (Mn)	2019/08/13	<0.050		ug/L	
			Dissolved Molybdenum (Mo)	2019/08/13	<0.050		ug/L	
			Dissolved Nickel (Ni)	2019/08/13	<0.020		ug/L	
			Dissolved Phosphorus (P)	2019/08/13	<2.0		ug/L	
			Dissolved Selenium (Se)	2019/08/13	<0.040		ug/L	
			Dissolved Silicon (Si)	2019/08/13	<50		ug/L	
			Dissolved Silver (Ag)	2019/08/13	<0.0050		ug/L	
			Dissolved Strontium (Sr)	2019/08/13	<0.050		ug/L	
			Dissolved Thallium (Tl)	2019/08/13	<0.0020		ug/L	
			Dissolved Tin (Sn)	2019/08/13	<0.20		ug/L	
			Dissolved Titanium (Ti)	2019/08/13	<0.50		ug/L	
			Dissolved Uranium (U)	2019/08/13	<0.0020		ug/L	
			Dissolved Vanadium (V)	2019/08/13	<0.20		ug/L	
			Dissolved Zinc (Zn)	2019/08/13	<0.10		ug/L	
			Dissolved Zirconium (Zr)	2019/08/13	<0.10		ug/L	
			Dissolved Aluminum (Al)	2019/08/13	1.3		%	20
			Dissolved Antimony (Sb)	2019/08/13	0.18		%	20
			Dissolved Arsenic (As)	2019/08/13	1.5		%	20
			Dissolved Barium (Ba)	2019/08/13	0.48		%	20
			Dissolved Beryllium (Be)	2019/08/13	NC		%	20
			Dissolved Bismuth (Bi)	2019/08/13	NC		%	20
			Dissolved Boron (B)	2019/08/13	NC		%	20
			Dissolved Cadmium (Cd)	2019/08/13	NC		%	20
			Dissolved Chromium (Cr)	2019/08/13	4.7		%	20
			Dissolved Cobalt (Co)	2019/08/13	12		%	20
			Dissolved Copper (Cu)	2019/08/13	0.87		%	20
			Dissolved Iron (Fe)	2019/08/13	0.22		%	20
			Dissolved Lead (Pb)	2019/08/13	9.4		%	20
			Dissolved Lithium (Li)	2019/08/13	NC		%	20
			Dissolved Manganese (Mn)	2019/08/13	3.4		%	20
			Dissolved Molybdenum (Mo)	2019/08/13	4.3		%	20
			Dissolved Nickel (Ni)	2019/08/13	0.33		%	20
			Dissolved Phosphorus (P)	2019/08/13	NC		%	20
			Dissolved Selenium (Se)	2019/08/13	19		%	20
			Dissolved Silicon (Si)	2019/08/13	1.4		%	20
			Dissolved Silver (Ag)	2019/08/13	NC		%	20
			Dissolved Strontium (Sr)	2019/08/13	0.60		%	20
			Dissolved Thallium (Tl)	2019/08/13	12		%	20
			Dissolved Tin (Sn)	2019/08/13	NC		%	20
			Dissolved Titanium (Ti)	2019/08/13	2.2		%	20
			Dissolved Uranium (U)	2019/08/13	0.13		%	20
			Dissolved Vanadium (V)	2019/08/13	4.4		%	20



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9546191	MO5	Matrix Spike [WH0630-01]	Dissolved Zinc (Zn)	2019/08/13	NC		%	20
			Dissolved Zirconium (Zr)	2019/08/13	0.76		%	20
			Nitrate plus Nitrite (N)	2019/08/13		NC	%	80 - 120
9546191	MO5	Spiked Blank	Nitrate plus Nitrite (N)	2019/08/13		103	%	80 - 120
9546191	MO5	Method Blank	Nitrate plus Nitrite (N)	2019/08/13	<0.0020		mg/L	
9546191	MO5	RPD [WH0630-01]	Nitrate plus Nitrite (N)	2019/08/13	0.58		%	25
9546193	MO5	Matrix Spike [WH0630-01]	Nitrite (N)	2019/08/13		98	%	80 - 120
9546193	MO5	Spiked Blank	Nitrite (N)	2019/08/13		107	%	80 - 120
9546193	MO5	Method Blank	Nitrite (N)	2019/08/13	<0.0020		mg/L	
9546193	MO5	RPD [WH0630-01]	Nitrite (N)	2019/08/13	NC		%	25
9546211	JLP	Matrix Spike	Total Mercury (Hg)	2019/08/15		102	%	80 - 120
9546211	JLP	Spiked Blank	Total Mercury (Hg)	2019/08/15		99	%	80 - 120
9546211	JLP	Method Blank	Total Mercury (Hg)	2019/08/15	<0.0020		ug/L	
9546211	JLP	RPD	Total Mercury (Hg)	2019/08/15	NC		%	20
9546352	JLP	Matrix Spike [WH0638-05]	Dissolved Mercury (Hg)	2019/08/14		89	%	80 - 120
9546352	JLP	Spiked Blank	Dissolved Mercury (Hg)	2019/08/14		94	%	80 - 120
9546352	JLP	Method Blank	Dissolved Mercury (Hg)	2019/08/14	<0.0020		ug/L	
9546352	JLP	RPD [WH0638-05]	Dissolved Mercury (Hg)	2019/08/14	NC		%	20
9546476	CGP	Matrix Spike [WH0633-01]	Alkalinity (Total as CaCO ₃)	2019/08/13		NC	%	80 - 120
9546476	CGP	Spiked Blank	Alkalinity (Total as CaCO ₃)	2019/08/13		97	%	80 - 120
9546476	CGP	Method Blank	Alkalinity (PP as CaCO ₃)	2019/08/13	<1.0		mg/L	
			Alkalinity (Total as CaCO ₃)	2019/08/13	<1.0		mg/L	
			Bicarbonate (HCO ₃)	2019/08/13	<1.0		mg/L	
			Carbonate (CO ₃)	2019/08/13	<1.0		mg/L	
			Hydroxide (OH)	2019/08/13	<1.0		mg/L	
9546476	CGP	RPD [WH0633-01]	Alkalinity (PP as CaCO ₃)	2019/08/13	NC		%	20
			Alkalinity (Total as CaCO ₃)	2019/08/13	0.31		%	20
			Bicarbonate (HCO ₃)	2019/08/13	0.31		%	20
			Carbonate (CO ₃)	2019/08/13	NC		%	20
			Hydroxide (OH)	2019/08/13	NC		%	20
9546480	CGP	Spiked Blank	Conductivity	2019/08/13		100	%	80 - 120
9546480	CGP	Method Blank	Conductivity	2019/08/13	<1.0		uS/cm	
9546480	CGP	RPD [WH0633-01]	Conductivity	2019/08/13	2.0		%	20
9546482	CGP	Spiked Blank	pH	2019/08/13		102	%	97 - 103
9546482	CGP	RPD [WH0633-01]	pH	2019/08/13	0.65		%	N/A
9546485	CGP	Matrix Spike [WH0628-01]	Alkalinity (Total as CaCO ₃)	2019/08/13		105	%	80 - 120
9546485	CGP	Spiked Blank	Alkalinity (Total as CaCO ₃)	2019/08/13		96	%	80 - 120
9546485	CGP	Method Blank	Alkalinity (PP as CaCO ₃)	2019/08/13	<1.0		mg/L	
			Alkalinity (Total as CaCO ₃)	2019/08/13	<1.0		mg/L	
			Bicarbonate (HCO ₃)	2019/08/13	<1.0		mg/L	
			Carbonate (CO ₃)	2019/08/13	<1.0		mg/L	
			Hydroxide (OH)	2019/08/13	<1.0		mg/L	
9546485	CGP	RPD [WH0628-01]	Alkalinity (PP as CaCO ₃)	2019/08/13	NC		%	20
			Alkalinity (Total as CaCO ₃)	2019/08/13	0.064		%	20
			Bicarbonate (HCO ₃)	2019/08/13	0.064		%	20
			Carbonate (CO ₃)	2019/08/13	NC		%	20
			Hydroxide (OH)	2019/08/13	NC		%	20



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9546490	CGP	Spiked Blank	Conductivity	2019/08/13		99	%	80 - 120
9546490	CGP	Method Blank	Conductivity	2019/08/13	<1.0		uS/cm	
9546490	CGP	RPD [WH0628-01]	Conductivity	2019/08/13	0.17		%	20
9546492	CGP	Spiked Blank	pH	2019/08/13		102	%	97 - 103
9546492	CGP	RPD [WH0628-01]	pH	2019/08/13	0		%	N/A
9546523	IC4	Matrix Spike [WH0613-01]	Orthophosphate (P)	2019/08/13		94	%	80 - 120
9546523	IC4	Spiked Blank	Orthophosphate (P)	2019/08/13		108	%	80 - 120
9546523	IC4	Method Blank	Orthophosphate (P)	2019/08/13	<0.0010		mg/L	
9546523	IC4	RPD [WH0613-01]	Orthophosphate (P)	2019/08/13	1.5		%	20
9547418	SHI	Matrix Spike [WH0638-01]	Total Dissolved Solids	2019/08/15		101	%	80 - 120
9547418	SHI	Spiked Blank	Total Dissolved Solids	2019/08/15		91	%	80 - 120
9547418	SHI	Method Blank	Total Dissolved Solids	2019/08/15	<10		mg/L	
9547418	SHI	RPD	Total Dissolved Solids	2019/08/15	1.0		%	20
9547423	SHI	Matrix Spike [WH0635-01]	Total Dissolved Solids	2019/08/16		103	%	80 - 120
9547423	SHI	Spiked Blank	Total Dissolved Solids	2019/08/16		93	%	80 - 120
9547423	SHI	Method Blank	Total Dissolved Solids	2019/08/16	<10		mg/L	
9547423	SHI	RPD [WH0616-01]	Total Dissolved Solids	2019/08/16	0		%	20
9547426	SHI	Matrix Spike [WH0634-03]	Total Suspended Solids	2019/08/15		105	%	80 - 120
9547426	SHI	Spiked Blank	Total Suspended Solids	2019/08/15		105	%	80 - 120
9547426	SHI	Method Blank	Total Suspended Solids	2019/08/15	<1.0		mg/L	
9547426	SHI	RPD [WH0633-03]	Total Suspended Solids	2019/08/15	8.0		%	20
9547530	IC4	Matrix Spike [WH0630-01]	Orthophosphate (P)	2019/08/13		89	%	80 - 120
9547530	IC4	Spiked Blank	Orthophosphate (P)	2019/08/13		105	%	80 - 120
9547530	IC4	Method Blank	Orthophosphate (P)	2019/08/13	<0.0010		mg/L	
9547530	IC4	RPD [WH0630-01]	Orthophosphate (P)	2019/08/13	1.1		%	20
9547547	MHK	Matrix Spike	Fluoride (F)	2019/08/14		100	%	N/A
9547547	MHK	Spiked Blank	Fluoride (F)	2019/08/14		100	%	80 - 120
9547547	MHK	Method Blank	Fluoride (F)	2019/08/14	<0.010		mg/L	
9547547	MHK	RPD	Fluoride (F)	2019/08/14	0		%	20
9547587	BB3	Matrix Spike [WH0620-01]	Dissolved Chloride (Cl)	2019/08/13		91	%	80 - 120
			Dissolved Sulphate (SO4)	2019/08/13		87	%	80 - 120
9547587	BB3	Spiked Blank	Dissolved Chloride (Cl)	2019/08/13		97	%	80 - 120
			Dissolved Sulphate (SO4)	2019/08/13		93	%	80 - 120
9547587	BB3	Method Blank	Dissolved Chloride (Cl)	2019/08/13	<0.50		mg/L	
			Dissolved Sulphate (SO4)	2019/08/13	0.73, RDL=0.50		mg/L	
9547587	BB3	RPD [WH0620-01]	Dissolved Chloride (Cl)	2019/08/13	11		%	20
			Dissolved Sulphate (SO4)	2019/08/13	1.1		%	20
9547588	BB3	Matrix Spike [WH0637-01]	Dissolved Chloride (Cl)	2019/08/13		93	%	80 - 120
			Dissolved Sulphate (SO4)	2019/08/13		95	%	80 - 120
9547588	BB3	Spiked Blank	Dissolved Chloride (Cl)	2019/08/13		97	%	80 - 120
			Dissolved Sulphate (SO4)	2019/08/13		91	%	80 - 120
9547588	BB3	Method Blank	Dissolved Chloride (Cl)	2019/08/13	0.61, RDL=0.50		mg/L	
			Dissolved Sulphate (SO4)	2019/08/13	<0.50		mg/L	



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9547588	BB3	RPD [WH0635-01]	Dissolved Chloride (Cl)	2019/08/13	NC		%	20
			Dissolved Sulphate (SO4)	2019/08/13	1.4		%	20
9547720	SHI	Matrix Spike [WH0637-03]	Total Suspended Solids	2019/08/15		103	%	80 - 120
9547720	SHI	Spiked Blank	Total Suspended Solids	2019/08/15		106	%	80 - 120
9547720	SHI	Method Blank	Total Suspended Solids	2019/08/15	<1.0		mg/L	
9547720	SHI	RPD [WH0621-03]	Total Suspended Solids	2019/08/15	NC		%	20
9547823	AA1	Matrix Spike [WH0623-09]	Total Aluminum (Al)	2019/08/15		87	%	80 - 120
			Total Antimony (Sb)	2019/08/15		99	%	80 - 120
			Total Arsenic (As)	2019/08/15		99	%	80 - 120
			Total Barium (Ba)	2019/08/15		98	%	80 - 120
			Total Beryllium (Be)	2019/08/15		97	%	80 - 120
			Total Bismuth (Bi)	2019/08/15		100	%	80 - 120
			Total Boron (B)	2019/08/15		98	%	80 - 120
			Total Cadmium (Cd)	2019/08/15		99	%	80 - 120
			Total Chromium (Cr)	2019/08/15		97	%	80 - 120
			Total Cobalt (Co)	2019/08/15		97	%	80 - 120
			Total Copper (Cu)	2019/08/15		97	%	80 - 120
			Total Iron (Fe)	2019/08/15		88	%	80 - 120
			Total Lead (Pb)	2019/08/15		103	%	80 - 120
			Total Lithium (Li)	2019/08/15		99	%	80 - 120
			Total Manganese (Mn)	2019/08/15		99	%	80 - 120
			Total Molybdenum (Mo)	2019/08/15		101	%	80 - 120
			Total Nickel (Ni)	2019/08/15		99	%	80 - 120
			Total Phosphorus (P)	2019/08/15		100	%	80 - 120
			Total Selenium (Se)	2019/08/15		102	%	80 - 120
			Total Silicon (Si)	2019/08/15		NC	%	80 - 120
			Total Silver (Ag)	2019/08/15		100	%	80 - 120
			Total Strontium (Sr)	2019/08/15		105	%	80 - 120
			Total Thallium (Tl)	2019/08/15		101	%	80 - 120
			Total Tin (Sn)	2019/08/15		100	%	80 - 120
			Total Titanium (Ti)	2019/08/15		95	%	80 - 120
			Total Uranium (U)	2019/08/15		104	%	80 - 120
			Total Vanadium (V)	2019/08/15		101	%	80 - 120
			Total Zinc (Zn)	2019/08/15		98	%	80 - 120
			Total Zirconium (Zr)	2019/08/15		107	%	80 - 120
			Total Sulphur (S)	2019/08/15		100	%	80 - 120
9547823	AA1	Spiked Blank	Total Aluminum (Al)	2019/08/15		98	%	80 - 120
			Total Antimony (Sb)	2019/08/15		101	%	80 - 120
			Total Arsenic (As)	2019/08/15		98	%	80 - 120
			Total Barium (Ba)	2019/08/15		100	%	80 - 120
			Total Beryllium (Be)	2019/08/15		99	%	80 - 120
			Total Bismuth (Bi)	2019/08/15		100	%	80 - 120
			Total Boron (B)	2019/08/15		98	%	80 - 120
			Total Cadmium (Cd)	2019/08/15		100	%	80 - 120
			Total Chromium (Cr)	2019/08/15		97	%	80 - 120
			Total Cobalt (Co)	2019/08/15		96	%	80 - 120
			Total Copper (Cu)	2019/08/15		96	%	80 - 120
			Total Iron (Fe)	2019/08/15		100	%	80 - 120
			Total Lead (Pb)	2019/08/15		103	%	80 - 120
			Total Lithium (Li)	2019/08/15		100	%	80 - 120



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9547823	AA1	Method Blank	Total Manganese (Mn)	2019/08/15		100	%	80 - 120
			Total Molybdenum (Mo)	2019/08/15		99	%	80 - 120
			Total Nickel (Ni)	2019/08/15		99	%	80 - 120
			Total Phosphorus (P)	2019/08/15		98	%	80 - 120
			Total Selenium (Se)	2019/08/15		100	%	80 - 120
			Total Silicon (Si)	2019/08/15		98	%	80 - 120
			Total Silver (Ag)	2019/08/15		99	%	80 - 120
			Total Strontium (Sr)	2019/08/15		95	%	80 - 120
			Total Thallium (Tl)	2019/08/15		100	%	80 - 120
			Total Tin (Sn)	2019/08/15		100	%	80 - 120
			Total Titanium (Ti)	2019/08/15		98	%	80 - 120
			Total Uranium (U)	2019/08/15		104	%	80 - 120
			Total Vanadium (V)	2019/08/15		99	%	80 - 120
			Total Zinc (Zn)	2019/08/15		99	%	80 - 120
			Total Zirconium (Zr)	2019/08/15		98	%	80 - 120
			Total Sulphur (S)	2019/08/15		99	%	80 - 120
			Total Aluminum (Al)	2019/08/15	<3.0		ug/L	
			Total Antimony (Sb)	2019/08/15	<0.020		ug/L	
			Total Arsenic (As)	2019/08/15	<0.020		ug/L	
			Total Barium (Ba)	2019/08/15	<0.050		ug/L	
			Total Beryllium (Be)	2019/08/15	<0.010		ug/L	
			Total Bismuth (Bi)	2019/08/15	<0.010		ug/L	
			Total Boron (B)	2019/08/15	<10		ug/L	
			Total Cadmium (Cd)	2019/08/15	<0.0050		ug/L	
			Total Chromium (Cr)	2019/08/15	<0.10		ug/L	
			Total Cobalt (Co)	2019/08/15	<0.010		ug/L	
			Total Copper (Cu)	2019/08/15	<0.10		ug/L	
			Total Iron (Fe)	2019/08/15	<5.0		ug/L	
			Total Lead (Pb)	2019/08/15	<0.020		ug/L	
			Total Lithium (Li)	2019/08/15	<0.50		ug/L	
			Total Manganese (Mn)	2019/08/15	<0.10		ug/L	
			Total Molybdenum (Mo)	2019/08/15	<0.050		ug/L	
			Total Nickel (Ni)	2019/08/15	<0.10		ug/L	
			Total Phosphorus (P)	2019/08/15	<5.0		ug/L	
			Total Selenium (Se)	2019/08/15	<0.040		ug/L	
			Total Silicon (Si)	2019/08/15	<50		ug/L	
			Total Silver (Ag)	2019/08/15	<0.010		ug/L	
			Total Strontium (Sr)	2019/08/15	<0.050		ug/L	
			Total Thallium (Tl)	2019/08/15	<0.0020		ug/L	
			Total Tin (Sn)	2019/08/15	<0.20		ug/L	
			Total Titanium (Ti)	2019/08/15	<2.0		ug/L	
			Total Uranium (U)	2019/08/15	<0.0050		ug/L	
			Total Vanadium (V)	2019/08/15	<0.20		ug/L	
			Total Zinc (Zn)	2019/08/15	<1.0		ug/L	
			Total Zirconium (Zr)	2019/08/15	<0.10		ug/L	
			Total Sulphur (S)	2019/08/15	<600		ug/L	
9547823	AA1	RPD [WH0623-09]	Total Aluminum (Al)	2019/08/15	0.069		%	20
			Total Antimony (Sb)	2019/08/15	2.7		%	20
			Total Arsenic (As)	2019/08/15	1.6		%	20
			Total Barium (Ba)	2019/08/15	0.24		%	20
			Total Beryllium (Be)	2019/08/15	8.6		%	20
			Total Bismuth (Bi)	2019/08/15	NC		%	20



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			Total Boron (B)	2019/08/15	NC		%	20
			Total Cadmium (Cd)	2019/08/15	2.0		%	20
			Total Chromium (Cr)	2019/08/15	0.27		%	20
			Total Cobalt (Co)	2019/08/15	2.1		%	20
			Total Copper (Cu)	2019/08/15	0.37		%	20
			Total Iron (Fe)	2019/08/15	1.0		%	20
			Total Lead (Pb)	2019/08/15	2.1		%	20
			Total Lithium (Li)	2019/08/15	2.8		%	20
			Total Manganese (Mn)	2019/08/15	1.7		%	20
			Total Molybdenum (Mo)	2019/08/15	6.1		%	20
			Total Nickel (Ni)	2019/08/15	0.74		%	20
			Total Phosphorus (P)	2019/08/15	2.1		%	20
			Total Selenium (Se)	2019/08/15	1.6		%	20
			Total Silicon (Si)	2019/08/15	0.61		%	20
			Total Silver (Ag)	2019/08/15	NC		%	20
			Total Strontium (Sr)	2019/08/15	0.18		%	20
			Total Thallium (Tl)	2019/08/15	2.2		%	20
			Total Tin (Sn)	2019/08/15	NC		%	20
			Total Titanium (Ti)	2019/08/15	1.3		%	20
			Total Uranium (U)	2019/08/15	0.84		%	20
			Total Vanadium (V)	2019/08/15	1.1		%	20
			Total Zinc (Zn)	2019/08/15	11		%	20
			Total Zirconium (Zr)	2019/08/15	3.1		%	20
			Total Sulphur (S)	2019/08/15	6.1		%	20
9548051	TMU	Matrix Spike [WH0638-09]	Weak Acid Dissoc. Cyanide (CN)	2019/08/15		98	%	80 - 120
9548051	TMU	Spiked Blank	Weak Acid Dissoc. Cyanide (CN)	2019/08/15		97	%	80 - 120
9548051	TMU	Method Blank	Weak Acid Dissoc. Cyanide (CN)	2019/08/15	<0.00050		mg/L	
9548051	TMU	RPD [WH0638-09]	Weak Acid Dissoc. Cyanide (CN)	2019/08/15	NC		%	20
9548057	TMU	Matrix Spike [WH0614-10]	Weak Acid Dissoc. Cyanide (CN)	2019/08/15		100	%	80 - 120
9548057	TMU	Spiked Blank	Weak Acid Dissoc. Cyanide (CN)	2019/08/15		97	%	80 - 120
9548057	TMU	Method Blank	Weak Acid Dissoc. Cyanide (CN)	2019/08/15	<0.00050		mg/L	
9548057	TMU	RPD [WH0614-10]	Weak Acid Dissoc. Cyanide (CN)	2019/08/15	5.8		%	20
9548394	JLD	Matrix Spike	Total Ammonia (N)	2019/08/15		107	%	80 - 120
9548394	JLD	Spiked Blank	Total Ammonia (N)	2019/08/15		105	%	80 - 120
9548394	JLD	Method Blank	Total Ammonia (N)	2019/08/15	<0.0050		mg/L	
9548394	JLD	RPD	Total Ammonia (N)	2019/08/15	1.2		%	20
9548401	JLD	Matrix Spike [WH0635-05]	Total Ammonia (N)	2019/08/15		100	%	80 - 120
9548401	JLD	Spiked Blank	Total Ammonia (N)	2019/08/15		105	%	80 - 120
9548401	JLD	Method Blank	Total Ammonia (N)	2019/08/15	<0.0050		mg/L	
9548401	JLD	RPD [WH0635-05]	Total Ammonia (N)	2019/08/15	12		%	20
9548560	VBA	Matrix Spike	Total Aluminum (Al)	2019/08/15		97	%	80 - 120
			Total Antimony (Sb)	2019/08/15		96	%	80 - 120
			Total Arsenic (As)	2019/08/15		95	%	80 - 120
			Total Barium (Ba)	2019/08/15		94	%	80 - 120
			Total Beryllium (Be)	2019/08/15		93	%	80 - 120
			Total Bismuth (Bi)	2019/08/15		98	%	80 - 120
			Total Boron (B)	2019/08/15		91	%	80 - 120
			Total Cadmium (Cd)	2019/08/15		95	%	80 - 120
			Total Chromium (Cr)	2019/08/15		93	%	80 - 120



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9548560	VBA	Spiked Blank	Total Cobalt (Co)	2019/08/15		93	%	80 - 120
			Total Copper (Cu)	2019/08/15		90	%	80 - 120
			Total Iron (Fe)	2019/08/15		98	%	80 - 120
			Total Lead (Pb)	2019/08/15		99	%	80 - 120
			Total Lithium (Li)	2019/08/15		94	%	80 - 120
			Total Manganese (Mn)	2019/08/15		93	%	80 - 120
			Total Molybdenum (Mo)	2019/08/15		96	%	80 - 120
			Total Nickel (Ni)	2019/08/15		91	%	80 - 120
			Total Phosphorus (P)	2019/08/15		99	%	80 - 120
			Total Selenium (Se)	2019/08/15		94	%	80 - 120
			Total Silicon (Si)	2019/08/15		107	%	80 - 120
			Total Silver (Ag)	2019/08/15		95	%	80 - 120
			Total Strontium (Sr)	2019/08/15		98	%	80 - 120
			Total Thallium (Tl)	2019/08/15		98	%	80 - 120
			Total Tin (Sn)	2019/08/15		95	%	80 - 120
			Total Titanium (Ti)	2019/08/15		97	%	80 - 120
			Total Uranium (U)	2019/08/15		97	%	80 - 120
			Total Vanadium (V)	2019/08/15		93	%	80 - 120
			Total Zinc (Zn)	2019/08/15		95	%	80 - 120
			Total Zirconium (Zr)	2019/08/15		100	%	80 - 120
			Total Aluminum (Al)	2019/08/15		98	%	80 - 120
			Total Antimony (Sb)	2019/08/15		100	%	80 - 120
			Total Arsenic (As)	2019/08/15		97	%	80 - 120
			Total Barium (Ba)	2019/08/15		100	%	80 - 120
			Total Beryllium (Be)	2019/08/15		96	%	80 - 120
			Total Bismuth (Bi)	2019/08/15		100	%	80 - 120
			Total Boron (B)	2019/08/15		95	%	80 - 120
			Total Cadmium (Cd)	2019/08/15		97	%	80 - 120
			Total Chromium (Cr)	2019/08/15		98	%	80 - 120
			Total Cobalt (Co)	2019/08/15		96	%	80 - 120
			Total Copper (Cu)	2019/08/15		94	%	80 - 120
			Total Iron (Fe)	2019/08/15		100	%	80 - 120
			Total Lead (Pb)	2019/08/15		101	%	80 - 120
			Total Lithium (Li)	2019/08/15		97	%	80 - 120
			Total Manganese (Mn)	2019/08/15		97	%	80 - 120
			Total Molybdenum (Mo)	2019/08/15		97	%	80 - 120
			Total Nickel (Ni)	2019/08/15		95	%	80 - 120
			Total Phosphorus (P)	2019/08/15		102	%	80 - 120
			Total Selenium (Se)	2019/08/15		96	%	80 - 120
			Total Silicon (Si)	2019/08/15		110	%	80 - 120
			Total Silver (Ag)	2019/08/15		97	%	80 - 120
			Total Strontium (Sr)	2019/08/15		101	%	80 - 120
			Total Thallium (Tl)	2019/08/15		100	%	80 - 120
			Total Tin (Sn)	2019/08/15		99	%	80 - 120
			Total Titanium (Ti)	2019/08/15		99	%	80 - 120
			Total Uranium (U)	2019/08/15		99	%	80 - 120
			Total Vanadium (V)	2019/08/15		97	%	80 - 120
			Total Zinc (Zn)	2019/08/15		98	%	80 - 120
			Total Zirconium (Zr)	2019/08/15		101	%	80 - 120
9548560	VBA	Method Blank	Total Aluminum (Al)	2019/08/15	<0.50		ug/L	
			Total Antimony (Sb)	2019/08/15	<0.020		ug/L	
			Total Arsenic (As)	2019/08/15	<0.020		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9548560	VBA	RPD [WH0637-09]	Total Barium (Ba)	2019/08/15	<0.020		ug/L	
			Total Beryllium (Be)	2019/08/15	<0.010		ug/L	
			Total Bismuth (Bi)	2019/08/15	<0.0050		ug/L	
			Total Boron (B)	2019/08/15	<10		ug/L	
			Total Cadmium (Cd)	2019/08/15	<0.0050		ug/L	
			Total Chromium (Cr)	2019/08/15	<0.10		ug/L	
			Total Cobalt (Co)	2019/08/15	<0.0050		ug/L	
			Total Copper (Cu)	2019/08/15	<0.050		ug/L	
			Total Iron (Fe)	2019/08/15	<1.0		ug/L	
			Total Lead (Pb)	2019/08/15	<0.0050		ug/L	
			Total Lithium (Li)	2019/08/15	<0.50		ug/L	
			Total Manganese (Mn)	2019/08/15	<0.050		ug/L	
			Total Molybdenum (Mo)	2019/08/15	<0.050		ug/L	
			Total Nickel (Ni)	2019/08/15	<0.020		ug/L	
			Total Phosphorus (P)	2019/08/15	<2.0		ug/L	
			Total Selenium (Se)	2019/08/15	<0.040		ug/L	
			Total Silicon (Si)	2019/08/15	<50		ug/L	
			Total Silver (Ag)	2019/08/15	<0.0050		ug/L	
			Total Strontium (Sr)	2019/08/15	<0.050		ug/L	
			Total Thallium (Tl)	2019/08/15	<0.0020		ug/L	
			Total Tin (Sn)	2019/08/15	<0.20		ug/L	
			Total Titanium (Ti)	2019/08/15	<0.50		ug/L	
			Total Uranium (U)	2019/08/15	<0.0020		ug/L	
			Total Vanadium (V)	2019/08/15	<0.20		ug/L	
			Total Zinc (Zn)	2019/08/15	<0.10		ug/L	
			Total Zirconium (Zr)	2019/08/15	<0.10		ug/L	
			Total Aluminum (Al)	2019/08/15	NC		%	20
			Total Antimony (Sb)	2019/08/15	NC		%	20
			Total Arsenic (As)	2019/08/15	NC		%	20
			Total Barium (Ba)	2019/08/15	NC		%	20
			Total Beryllium (Be)	2019/08/15	NC		%	20
			Total Bismuth (Bi)	2019/08/15	NC		%	20
			Total Boron (B)	2019/08/15	NC		%	20
			Total Cadmium (Cd)	2019/08/15	NC		%	20
			Total Chromium (Cr)	2019/08/15	NC		%	20
			Total Cobalt (Co)	2019/08/15	NC		%	20
			Total Copper (Cu)	2019/08/15	NC		%	20
			Total Iron (Fe)	2019/08/15	NC		%	20
			Total Lead (Pb)	2019/08/15	NC		%	20
			Total Lithium (Li)	2019/08/15	NC		%	20
			Total Manganese (Mn)	2019/08/15	NC		%	20
			Total Molybdenum (Mo)	2019/08/15	NC		%	20
			Total Nickel (Ni)	2019/08/15	NC		%	20
			Total Phosphorus (P)	2019/08/15	12		%	20
			Total Selenium (Se)	2019/08/15	NC		%	20
			Total Silicon (Si)	2019/08/15	NC		%	20
			Total Silver (Ag)	2019/08/15	NC		%	20
			Total Strontium (Sr)	2019/08/15	NC		%	20
			Total Thallium (Tl)	2019/08/15	NC		%	20
			Total Tin (Sn)	2019/08/15	NC		%	20
			Total Titanium (Ti)	2019/08/15	NC		%	20
			Total Uranium (U)	2019/08/15	NC		%	20



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9548560	VBA	RPD [WH0638-08]	Total Vanadium (V)	2019/08/15	17		%	20
			Total Zinc (Zn)	2019/08/15	NC		%	20
			Total Zirconium (Zr)	2019/08/15	NC		%	20
			Total Aluminum (Al)	2019/08/15	NC		%	20
			Total Antimony (Sb)	2019/08/15	NC		%	20
			Total Arsenic (As)	2019/08/15	NC		%	20
			Total Barium (Ba)	2019/08/15	NC		%	20
			Total Beryllium (Be)	2019/08/15	NC		%	20
			Total Bismuth (Bi)	2019/08/15	NC		%	20
			Total Boron (B)	2019/08/15	NC		%	20
			Total Cadmium (Cd)	2019/08/15	NC		%	20
			Total Chromium (Cr)	2019/08/15	NC		%	20
			Total Cobalt (Co)	2019/08/15	NC		%	20
			Total Copper (Cu)	2019/08/15	NC		%	20
			Total Iron (Fe)	2019/08/15	NC		%	20
			Total Lead (Pb)	2019/08/15	NC		%	20
			Total Lithium (Li)	2019/08/15	NC		%	20
			Total Manganese (Mn)	2019/08/15	NC		%	20
			Total Molybdenum (Mo)	2019/08/15	NC		%	20
			Total Nickel (Ni)	2019/08/15	NC		%	20
			Total Phosphorus (P)	2019/08/15	NC		%	20
			Total Selenium (Se)	2019/08/15	NC		%	20
			Total Silicon (Si)	2019/08/15	NC		%	20
			Total Silver (Ag)	2019/08/15	NC		%	20
			Total Strontium (Sr)	2019/08/15	NC		%	20
			Total Thallium (Tl)	2019/08/15	NC		%	20
			Total Tin (Sn)	2019/08/15	NC		%	20
			Total Titanium (Ti)	2019/08/15	NC		%	20
			Total Uranium (U)	2019/08/15	NC		%	20
			Total Vanadium (V)	2019/08/15	NC		%	20
			Total Zinc (Zn)	2019/08/15	NC		%	20
			Total Zirconium (Zr)	2019/08/15	NC		%	20
9548560	VBA	RPD	Total Aluminum (Al)	2019/08/15	NC		%	20
			Total Antimony (Sb)	2019/08/15	NC		%	20
			Total Arsenic (As)	2019/08/15	NC		%	20
			Total Barium (Ba)	2019/08/15	NC		%	20
			Total Beryllium (Be)	2019/08/15	NC		%	20
			Total Bismuth (Bi)	2019/08/15	NC		%	20
			Total Boron (B)	2019/08/15	NC		%	20
			Total Cadmium (Cd)	2019/08/15	NC		%	20
			Total Chromium (Cr)	2019/08/15	2.7		%	20
			Total Cobalt (Co)	2019/08/15	NC		%	20
			Total Copper (Cu)	2019/08/15	0.28		%	20
			Total Iron (Fe)	2019/08/15	NC		%	20
			Total Lead (Pb)	2019/08/15	NC		%	20
			Total Lithium (Li)	2019/08/15	NC		%	20
			Total Manganese (Mn)	2019/08/15	NC		%	20
			Total Molybdenum (Mo)	2019/08/15	NC		%	20
			Total Nickel (Ni)	2019/08/15	11		%	20
			Total Phosphorus (P)	2019/08/15	16		%	20
			Total Selenium (Se)	2019/08/15	NC		%	20
			Total Silicon (Si)	2019/08/15	NC		%	20



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9549063	AA1	Matrix Spike [WH0634-09]	Total Silver (Ag)	2019/08/15	NC		%	20
			Total Strontium (Sr)	2019/08/15	NC		%	20
			Total Thallium (Tl)	2019/08/15	NC		%	20
			Total Tin (Sn)	2019/08/15	NC		%	20
			Total Titanium (Ti)	2019/08/15	NC		%	20
			Total Uranium (U)	2019/08/15	NC		%	20
			Total Vanadium (V)	2019/08/15	NC		%	20
			Total Zinc (Zn)	2019/08/15	NC		%	20
			Total Zirconium (Zr)	2019/08/15	NC		%	20
			Total Aluminum (Al)	2019/08/15	0.10		%	20
			Total Antimony (Sb)	2019/08/15	NC		%	20
			Total Arsenic (As)	2019/08/15	NC		%	20
			Total Barium (Ba)	2019/08/15	NC		%	20
			Total Beryllium (Be)	2019/08/15	NC		%	20
			Total Bismuth (Bi)	2019/08/15	NC		%	20
			Total Boron (B)	2019/08/15	NC		%	20
			Total Cadmium (Cd)	2019/08/15	NC		%	20
			Total Chromium (Cr)	2019/08/15	NC		%	20
			Total Cobalt (Co)	2019/08/15	NC		%	20
			Total Copper (Cu)	2019/08/15	NC		%	20
			Total Iron (Fe)	2019/08/15	NC		%	20
			Total Lead (Pb)	2019/08/15	NC		%	20
			Total Lithium (Li)	2019/08/15	NC		%	20
			Total Manganese (Mn)	2019/08/15	NC		%	20
			Total Molybdenum (Mo)	2019/08/15	NC		%	20
			Total Nickel (Ni)	2019/08/15	NC		%	20
			Total Phosphorus (P)	2019/08/15	2.5		%	20
			Total Selenium (Se)	2019/08/15	NC		%	20
			Total Silicon (Si)	2019/08/15	NC		%	20
			Total Silver (Ag)	2019/08/15	NC		%	20
			Total Strontium (Sr)	2019/08/15	NC		%	20
			Total Thallium (Tl)	2019/08/15	NC		%	20
			Total Tin (Sn)	2019/08/15	NC		%	20
			Total Titanium (Ti)	2019/08/15	NC		%	20
			Total Uranium (U)	2019/08/15	NC		%	20
			Total Vanadium (V)	2019/08/15	NC		%	20
			Total Zinc (Zn)	2019/08/15	NC		%	20
			Total Zirconium (Zr)	2019/08/15	NC		%	20
			Total Aluminum (Al)	2019/08/15		110	%	80 - 120
			Total Antimony (Sb)	2019/08/15		100	%	80 - 120
			Total Arsenic (As)	2019/08/15		101	%	80 - 120
			Total Barium (Ba)	2019/08/15		102	%	80 - 120
			Total Beryllium (Be)	2019/08/15		101	%	80 - 120
			Total Bismuth (Bi)	2019/08/15		103	%	80 - 120
			Total Boron (B)	2019/08/15		107	%	80 - 120
			Total Cadmium (Cd)	2019/08/15		100	%	80 - 120
			Total Chromium (Cr)	2019/08/15		100	%	80 - 120
			Total Cobalt (Co)	2019/08/15		96	%	80 - 120
			Total Copper (Cu)	2019/08/15		97	%	80 - 120
			Total Iron (Fe)	2019/08/15		104	%	80 - 120
			Total Lead (Pb)	2019/08/15		104	%	80 - 120



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9549063	AA1	Spiked Blank	Total Lithium (Li)	2019/08/15		104	%	80 - 120
			Total Manganese (Mn)	2019/08/15		99	%	80 - 120
			Total Molybdenum (Mo)	2019/08/15		103	%	80 - 120
			Total Nickel (Ni)	2019/08/15		98	%	80 - 120
			Total Phosphorus (P)	2019/08/15		103	%	80 - 120
			Total Selenium (Se)	2019/08/15		103	%	80 - 120
			Total Silicon (Si)	2019/08/15		103	%	80 - 120
			Total Silver (Ag)	2019/08/15		101	%	80 - 120
			Total Strontium (Sr)	2019/08/15		NC	%	80 - 120
			Total Thallium (Tl)	2019/08/15		103	%	80 - 120
			Total Tin (Sn)	2019/08/15		102	%	80 - 120
			Total Titanium (Ti)	2019/08/15		106	%	80 - 120
			Total Uranium (U)	2019/08/15		105	%	80 - 120
			Total Vanadium (V)	2019/08/15		100	%	80 - 120
			Total Zinc (Zn)	2019/08/15		99	%	80 - 120
			Total Zirconium (Zr)	2019/08/15		105	%	80 - 120
			Total Sulphur (S)	2019/08/15		103	%	80 - 120
			Total Aluminum (Al)	2019/08/15		102	%	80 - 120
			Total Antimony (Sb)	2019/08/15		103	%	80 - 120
			Total Arsenic (As)	2019/08/15		101	%	80 - 120
			Total Barium (Ba)	2019/08/15		103	%	80 - 120
			Total Beryllium (Be)	2019/08/15		103	%	80 - 120
			Total Bismuth (Bi)	2019/08/15		105	%	80 - 120
			Total Boron (B)	2019/08/15		106	%	80 - 120
			Total Cadmium (Cd)	2019/08/15		102	%	80 - 120
			Total Chromium (Cr)	2019/08/15		102	%	80 - 120
			Total Cobalt (Co)	2019/08/15		99	%	80 - 120
			Total Copper (Cu)	2019/08/15		101	%	80 - 120
			Total Iron (Fe)	2019/08/15		102	%	80 - 120
			Total Lead (Pb)	2019/08/15		106	%	80 - 120
			Total Lithium (Li)	2019/08/15		106	%	80 - 120
			Total Manganese (Mn)	2019/08/15		102	%	80 - 120
			Total Molybdenum (Mo)	2019/08/15		101	%	80 - 120
			Total Nickel (Ni)	2019/08/15		102	%	80 - 120
			Total Phosphorus (P)	2019/08/15		103	%	80 - 120
			Total Selenium (Se)	2019/08/15		101	%	80 - 120
			Total Silicon (Si)	2019/08/15		106	%	80 - 120
			Total Silver (Ag)	2019/08/15		102	%	80 - 120
			Total Strontium (Sr)	2019/08/15		102	%	80 - 120
			Total Thallium (Tl)	2019/08/15		103	%	80 - 120
			Total Tin (Sn)	2019/08/15		102	%	80 - 120
			Total Titanium (Ti)	2019/08/15		102	%	80 - 120
			Total Uranium (U)	2019/08/15		105	%	80 - 120
			Total Vanadium (V)	2019/08/15		101	%	80 - 120
			Total Zinc (Zn)	2019/08/15		100	%	80 - 120
			Total Zirconium (Zr)	2019/08/15		101	%	80 - 120
			Total Sulphur (S)	2019/08/15		105	%	80 - 120
9549063	AA1	Method Blank	Total Aluminum (Al)	2019/08/15	<3.0		ug/L	
			Total Antimony (Sb)	2019/08/15	<0.020		ug/L	
			Total Arsenic (As)	2019/08/15	<0.020		ug/L	
			Total Barium (Ba)	2019/08/15	<0.050		ug/L	
			Total Beryllium (Be)	2019/08/15	<0.010		ug/L	



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9549063	AA1	RPD [WH0633-09]	Total Bismuth (Bi)	2019/08/15	<0.010		ug/L	
			Total Boron (B)	2019/08/15	<10		ug/L	
			Total Cadmium (Cd)	2019/08/15	<0.0050		ug/L	
			Total Chromium (Cr)	2019/08/15	<0.10		ug/L	
			Total Cobalt (Co)	2019/08/15	<0.010		ug/L	
			Total Copper (Cu)	2019/08/15	<0.10		ug/L	
			Total Iron (Fe)	2019/08/15	<5.0		ug/L	
			Total Lead (Pb)	2019/08/15	<0.020		ug/L	
			Total Lithium (Li)	2019/08/15	<0.50		ug/L	
			Total Manganese (Mn)	2019/08/15	<0.10		ug/L	
			Total Molybdenum (Mo)	2019/08/15	<0.050		ug/L	
			Total Nickel (Ni)	2019/08/15	<0.10		ug/L	
			Total Phosphorus (P)	2019/08/15	<5.0		ug/L	
			Total Selenium (Se)	2019/08/15	<0.040		ug/L	
			Total Silicon (Si)	2019/08/15	<50		ug/L	
			Total Silver (Ag)	2019/08/15	<0.010		ug/L	
			Total Strontium (Sr)	2019/08/15	<0.050		ug/L	
			Total Thallium (Tl)	2019/08/15	<0.0020		ug/L	
			Total Tin (Sn)	2019/08/15	<0.20		ug/L	
			Total Titanium (Ti)	2019/08/15	<2.0		ug/L	
			Total Uranium (U)	2019/08/15	<0.0050		ug/L	
			Total Vanadium (V)	2019/08/15	<0.20		ug/L	
			Total Zinc (Zn)	2019/08/15	<1.0		ug/L	
			Total Zirconium (Zr)	2019/08/15	<0.10		ug/L	
			Total Sulphur (S)	2019/08/15	<600		ug/L	
			Total Aluminum (Al)	2019/08/15	6.2		%	20
			Total Antimony (Sb)	2019/08/15	8.8		%	20
			Total Arsenic (As)	2019/08/15	2.2		%	20
			Total Barium (Ba)	2019/08/15	0.52		%	20
			Total Beryllium (Be)	2019/08/15	NC		%	20
			Total Bismuth (Bi)	2019/08/15	NC		%	20
			Total Boron (B)	2019/08/15	NC		%	20
			Total Cadmium (Cd)	2019/08/15	5.6		%	20
			Total Chromium (Cr)	2019/08/15	11		%	20
			Total Cobalt (Co)	2019/08/15	3.9		%	20
			Total Copper (Cu)	2019/08/15	7.4		%	20
			Total Iron (Fe)	2019/08/15	1.0		%	20
			Total Lead (Pb)	2019/08/15	5.9		%	20
			Total Lithium (Li)	2019/08/15	2.4		%	20
			Total Manganese (Mn)	2019/08/15	3.2		%	20
			Total Molybdenum (Mo)	2019/08/15	3.1		%	20
			Total Nickel (Ni)	2019/08/15	4.1		%	20
			Total Phosphorus (P)	2019/08/15	7.2		%	20
			Total Selenium (Se)	2019/08/15	7.9		%	20
			Total Silicon (Si)	2019/08/15	0.37		%	20
			Total Silver (Ag)	2019/08/15	NC		%	20
			Total Strontium (Sr)	2019/08/15	2.4		%	20
			Total Thallium (Tl)	2019/08/15	15		%	20
			Total Tin (Sn)	2019/08/15	NC		%	20
			Total Titanium (Ti)	2019/08/15	1.9		%	20
			Total Uranium (U)	2019/08/15	0.97		%	20
			Total Vanadium (V)	2019/08/15	1.5		%	20



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zinc (Zn)	2019/08/15	3.5		%	20
			Total Zirconium (Zr)	2019/08/15	NC		%	20
			Total Sulphur (S)	2019/08/15	2.3		%	20
9549359	KGH	Matrix Spike	Dissolved Organic Carbon (C)	2019/08/16		59 (1)	%	80 - 120
9549359	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/08/16		103	%	80 - 120
9549359	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/08/16	<0.50		mg/L	
9549359	KGH	RPD	Dissolved Organic Carbon (C)	2019/08/16	NC		%	20
9549428	KGH	Matrix Spike [WH0626-04]	Dissolved Organic Carbon (C)	2019/08/16		NC	%	80 - 120
9549428	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/08/16		102	%	80 - 120
9549428	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/08/16	<0.50		mg/L	
9549428	KGH	RPD [WH0626-04]	Dissolved Organic Carbon (C)	2019/08/16	1.1		%	20
9549436	KGH	Matrix Spike [WH0633-04]	Dissolved Organic Carbon (C)	2019/08/16		100	%	80 - 120
9549436	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/08/16		106	%	80 - 120
9549436	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/08/16	<0.50		mg/L	
9549436	KGH	RPD [WH0633-04]	Dissolved Organic Carbon (C)	2019/08/16	2.5		%	20
9549454	SHI	Matrix Spike [WH0625-01]	Total Dissolved Solids	2019/08/16		101	%	80 - 120
9549454	SHI	Spiked Blank	Total Dissolved Solids	2019/08/16		98	%	80 - 120
9549454	SHI	Method Blank	Total Dissolved Solids	2019/08/16	<10		mg/L	
9549454	SHI	RPD	Total Dissolved Solids	2019/08/16	16		%	20
9551202	IC4	Matrix Spike [WH0606-01]	Fluoride (F)	2019/08/16		103	%	80 - 120
9551202	IC4	Spiked Blank	Fluoride (F)	2019/08/16		104	%	80 - 120
9551202	IC4	Method Blank	Fluoride (F)	2019/08/16	<0.010		mg/L	
9551202	IC4	RPD [WH0606-01]	Fluoride (F)	2019/08/16	1.6		%	20
9551252	SHI	Matrix Spike	Total Dissolved Solids	2019/08/19		97	%	80 - 120
9551252	SHI	Spiked Blank	Total Dissolved Solids	2019/08/19		100	%	80 - 120
9551252	SHI	Method Blank	Total Dissolved Solids	2019/08/19	<10		mg/L	
9551252	SHI	RPD	Total Dissolved Solids	2019/08/19	7.3		%	20
9551334	KGH	Matrix Spike [WH0606-05]	Total Organic Carbon (C)	2019/08/19		NC	%	80 - 120
9551334	KGH	Spiked Blank	Total Organic Carbon (C)	2019/08/19		100	%	80 - 120
9551334	KGH	Method Blank	Total Organic Carbon (C)	2019/08/19	<0.50		mg/L	
9551334	KGH	RPD [WH0606-05]	Total Organic Carbon (C)	2019/08/19	3.8		%	20
9551342	KGH	Matrix Spike [WH0626-05]	Total Organic Carbon (C)	2019/08/19		NC	%	80 - 120
9551342	KGH	Spiked Blank	Total Organic Carbon (C)	2019/08/19		107	%	80 - 120
9551342	KGH	Method Blank	Total Organic Carbon (C)	2019/08/19	<0.50		mg/L	
9551342	KGH	RPD [WH0626-05]	Total Organic Carbon (C)	2019/08/19	2.2		%	20
9552523	MHK	Matrix Spike [WH0622-01]	Fluoride (F)	2019/08/17		102	%	80 - 120
9552523	MHK	Spiked Blank	Fluoride (F)	2019/08/17		98	%	80 - 120
9552523	MHK	Method Blank	Fluoride (F)	2019/08/17	<0.010		mg/L	
9552523	MHK	RPD [WH0622-01]	Fluoride (F)	2019/08/17	2.8		%	20
9555631	AA1	Spiked Blank	Dissolved Molybdenum (Mo)	2019/08/20		105	%	80 - 120
9555631	AA1	Method Blank	Dissolved Molybdenum (Mo)	2019/08/20	<0.050		ug/L	
9555679	IC4	Matrix Spike	Orthophosphate (P)	2019/08/20		102	%	80 - 120
9555679	IC4	Spiked Blank	Orthophosphate (P)	2019/08/20		85	%	80 - 120
9555679	IC4	Method Blank	Orthophosphate (P)	2019/08/20	<0.0010		mg/L	



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC									
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits	
9555679	IC4	RPD	Orthophosphate (P)	2019/08/20	9.0		%	20	
N/A = Not Applicable									
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.									
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.									
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.									
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.									
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)									
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).									
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.									



BUREAU
VERITAS

BV Labs Job #: B966469
Report Date: 2019/08/20

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Harry (Peng) Liang, Senior Analyst

Rob Reinert, B.Sc., Scientific Spécialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.



Custody Tracking Form



W16219

Please use this form for custody tracking when submitting the work instructions via eTR (electronic Test Requisition). Please ensure your form has a barcode or a BV Labs eTR confirmation number in the top right hand side. This number links your electronic submission to your samples.

First Sample: CC-0.5
Last Sample: Trip Blank
Sample Count: 33

Relinquished By				Received By			
Kate Titterton	K. Titterton	Date	2019/08/11	A. DeJumoke-A.		Date	2019/08/13
		Time (24 HR)	17:32			Time (24 HR)	08:00
		Date				Date	
		Time (24 HR)				Time (24 HR)	
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Submission Triage Information			
Sampled By	# of Coolers/Pkgs:	Rush ☐	Immediate Test ☐
K. Titterton, A. Charon, C. Johns	7	Micro ☐	Food Residue ☐
			Food Chemistry ☐

*** LAB USE ONLY ***									
Received At	Labeled By	Verified By	Comments:	Custody Seal		Cooling Media	Temperature °C		
				Present (Y/N)	Intact (Y/N)		1	2	3
			one cooler contains old HNO ₃ vials & ice packs.	Y	Y	Y	4	3	4
				Y	Y	Y	11	6	10
				Y	Y	Y	5	6	5
				Y	Y	Y	7	6	5
				Y	Y	Y	3	2	2
				Y	Y	Y	2	0	5



B966469_COC

RECEIVED IN WHITEHORSE
BY: Syomo@1245

2019-08-12
TEMP: 6 5 5
5 1 5 1
4 4 5 4
4 4 5 2
3 4 5 4
4 5 4

461



Your P.O. #: 4570046268
 Your Project #: Coffee Gold Project - SW
 Site Location: Coffee Creek
 Your C.O.C. #: 16814

Attention: Carolyn Johns

Goldcorp Inc
 Yukon
 Suite 201-166 Titanium Way
 Whitehorse, YT
 CANADA Y1A 0G1

Report Date: 2019/09/16
 Report #: R2782121
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B974329

Received: 2019/09/04, 13:30

Sample Matrix: Water
 # Samples Received: 33

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	33	N/A	2019/09/06	BBY6SOP-00026	SM 22 2320 B m
Low level chloride/sulphate by AC	32	N/A	2019/09/06	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO4-E m
Low level chloride/sulphate by AC	1	N/A	2019/09/09	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO4-E m
Carbon (DOC) (1, 3)	33	N/A	2019/09/10	AB SOP-00087	MMCW 119 1996 m
Conductance - Low Level	33	N/A	2019/09/06	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	28	N/A	2019/09/09	BBY6SOP-00048	SM 23 4500-F C m
Fluoride - Low Level	5	N/A	2019/09/10	BBY6SOP-00048	SM 23 4500-F C m
Hardness Total (calculated as CaCO3) (4)	26	N/A	2019/09/09	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	7	N/A	2019/09/11	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	13	N/A	2019/09/09	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	20	N/A	2019/09/11	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CV	31	2019/09/06	2019/09/06	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CV	2	2019/09/10	2019/09/10	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	33	2019/09/06	2019/09/06	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	13	N/A	2019/09/09	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	20	N/A	2019/09/11	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	33	N/A	2019/09/07	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	7	2019/09/10	2019/09/10	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	26	N/A	2019/09/09	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2019/09/11	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	26	N/A	2019/09/07	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved) (1)	31	N/A	2019/09/12	AB SOP-00007	SM 23 4500 NH3 A G m
Ammonia-N Low Level (Preserved) (1)	2	N/A	2019/09/13	AB SOP-00007	SM 23 4500 NH3 A G m
Nitrate+Nitrite (N) (low level)	33	N/A	2019/09/06	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	33	N/A	2019/09/06	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	33	N/A	2019/09/09	BBY WI-00033	Auto Calc
Filter and HNO3 Preserve for Metals	32	N/A	2019/09/05	BBY7 WI-00004	SM 23 3030B m
pH @25°C (5)	33	N/A	2019/09/06	BBY6SOP-00026	SM 22 4500-H+ B m



Your P.O. #: 4570046268
 Your Project #: Coffee Gold Project - SW
 Site Location: Coffee Creek
 Your C.O.C. #: 16814

Attention: Carolyn Johns

Goldcorp Inc
 Yukon
 Suite 201-166 Titanium Way
 Whitehorse, YT
 CANADA Y1A 0G1

Report Date: 2019/09/16
 Report #: R2782121
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B974329

Received: 2019/09/04, 13:30

Sample Matrix: Water
 # Samples Received: 33

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Orthophosphate by Konelab (6)	33	N/A	2019/09/06	BBY6SOP-00013	SM 23 4500-P E m
Total Dissolved Solids (Filt. Residue)	10	2019/09/06	2019/09/10	BBY6SOP-00033	SM 23 2540 C m
Total Dissolved Solids (Filt. Residue)	10	2019/09/07	2019/09/09	BBY6SOP-00033	SM 23 2540 C m
Total Dissolved Solids (Filt. Residue)	13	2019/09/09	2019/09/10	BBY6SOP-00033	SM 23 2540 C m
Carbon (Total Organic) (1, 7)	6	N/A	2019/09/09	AB SOP-00087	MMCW 119 1996 m
Carbon (Total Organic) (1, 7)	18	N/A	2019/09/10	AB SOP-00087	MMCW 119 1996 m
Carbon (Total Organic) (1, 7)	9	N/A	2019/09/11	AB SOP-00087	MMCW 119 1996 m
Total Suspended Solids (NFR)	8	2019/09/07	2019/09/09	BBY6SOP-00034	SM 23 2540 D m
Total Suspended Solids (NFR)	23	2019/09/09	2019/09/10	BBY6SOP-00034	SM 23 2540 D m
Total Suspended Solids (NFR)	2	2019/09/10	2019/09/11	BBY6SOP-00034	SM 23 2540 D m
Free (WAD) Cyanide (2)	33	N/A	2019/09/13	CAM SOP-00457	OMOE E3015 5 m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by BV Labs Calgary Environmental



Your P.O. #: 4570046268
Your Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your C.O.C. #: 16814

Attention: Carolyn Johns

Goldcorp Inc
Yukon
Suite 201-166 Titanium Way
Whitehorse, YT
CANADA Y1A 0G1

Report Date: 2019/09/16
Report #: R2782121
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B974329

Received: 2019/09/04, 13:30

- (2) This test was performed by BV Labs Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
- (7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Safiann Maiter, Key Account Specialist
Email: Safiann.Maiter@bvlabs.com
Phone# (604)639-2616

=====

This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9286		WK9287	WK9288		WK9289		
Sampling Date			2019/09/03 09:45		2019/09/03 13:25	2019/09/03 13:50		2019/09/03 10:45		
COC Number			16814		16814	16814		16814		
	UNITS	Criteria	CC-0.5	QC Batch	CC-1.0	CC-1.5	QC Batch	CC-3.5	RDL	QC Batch
Calculated Parameters										
Nitrate (N)	mg/L	-	0.266	9576335	0.858	0.333	9576335	0.359	0.0020	9576335
Misc. Inorganics										
Fluoride (F)	mg/L	-	0.078	9581306	0.094	0.063	9581306	0.062	0.010	9581306
Free Cyanide	mg/L	-	<0.0010	9590469	<0.0010	<0.0010	9590469	<0.0010	0.0010	9590469
Dissolved Organic Carbon (C)	mg/L	-	9.3	9580238	3.8	7.4	9580238	8.1	0.50	9582030
pH	pH	6:9	7.41	9578291	8.35	7.82	9578291	7.77	N/A	9578291
Alkalinity (Total as CaCO3)	mg/L	-	43.2	9578280	259	79.7	9578280	76.0	0.50	9578280
Total Organic Carbon (C)	mg/L	-	9.5	9580528	3.7	7.3	9580773	8.5	0.50	9580773
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578280	3.54	<0.50	9578280	<0.50	0.50	9578280
Bicarbonate (HCO3)	mg/L	-	52.7	9578280	308	97.3	9578280	92.8	0.50	9578280
Carbonate (CO3)	mg/L	-	<0.50	9578280	4.25	<0.50	9578280	<0.50	0.50	9578280
Hydroxide (OH)	mg/L	-	<0.50	9578280	<0.50	<0.50	9578280	<0.50	0.50	9578280
Total Dissolved Solids	mg/L	-	130	9580820	520	220	9580820	200	10	9580820
Total Suspended Solids	mg/L	-	1.0	9580786	<1.0	<1.0	9580863	<1.0	1.0	9580863
Anions										
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578833	<0.50	<0.50	9578833	<0.50	0.50	9578833
Dissolved Sulphate (SO4)	mg/L	-	39	9578833	170	71	9578833	70	0.50	9578833
Nutrients										
Orthophosphate (P)	mg/L	-	<0.0030	9578601	<0.0030	<0.0030	9578601	<0.0030	0.0030	9578601
Total Ammonia (N)	mg/L	-	0.075	9584214	0.055	0.058	9584214	0.082	0.0050	9584214
Nitrate plus Nitrite (N)	mg/L	-	0.266	9580774	0.858	0.333	9580774	0.359	0.0020	9580774
Nitrite (N)	mg/L	-	<0.0020	9580777	<0.0020	<0.0020	9580777	<0.0020	0.0020	9580777
Physical Properties										
Conductivity	uS/cm	-	167	9578287	773	298	9578287	287	1.0	9578287
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit N/A = Not Applicable										



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9290		WK9291	WK9292		WK9293		
Sampling Date			2019/09/03 08:15		2019/09/03 15:10	2019/09/03 14:50		2019/09/03 12:45		
COC Number			16814		16814	16814		16814		
	UNITS	Criteria	CC-4.5	QC Batch	CC-6.0	CC-A	QC Batch	CC-B	RDL	QC Batch
Calculated Parameters										
Nitrate (N)	mg/L	-	0.276	9576335	0.0377	0.214	9576335	0.338	0.0020	9576335
Misc. Inorganics										
Fluoride (F)	mg/L	-	0.072	9582337	0.029	0.044	9582337	0.068	0.010	9582337
Free Cyanide	mg/L	-	<0.0010	9590469	<0.0010	<0.0010	9590469	<0.0010	0.0010	9590469
Dissolved Organic Carbon (C)	mg/L	-	9.0	9580238	8.6	7.9	9582030	7.0	0.50	9580522
pH	pH	6:9	7.48	9578291	6.68	7.21	9578291	7.92	N/A	9578291
Alkalinity (Total as CaCO3)	mg/L	-	50.4	9578280	7.96	31.4	9578280	93.9	0.50	9578280
Total Organic Carbon (C)	mg/L	-	9.0	9580773	8.9	8.4	9580528	7.1	0.50	9580528
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578280	<0.50	<0.50	9578280	<0.50	0.50	9578280
Bicarbonate (HCO3)	mg/L	-	61.5	9578280	9.71	38.2	9578280	114	0.50	9578280
Carbonate (CO3)	mg/L	-	<0.50	9578280	<0.50	<0.50	9578280	<0.50	0.50	9578280
Hydroxide (OH)	mg/L	-	<0.50	9578280	<0.50	<0.50	9578280	<0.50	0.50	9578280
Total Dissolved Solids	mg/L	-	130	9580820	36 (1)	94	9580820	260	10	9580824
Total Suspended Solids	mg/L	-	<1.0	9580863	1.7	<1.0	9580863	<1.0	1.0	9580863
Anions										
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578833	<0.50	<0.50	9578833	<0.50	0.50	9578833
Dissolved Sulphate (SO4)	mg/L	-	40	9578833	<0.50	28	9578833	83	0.50	9578833
Nutrients										
Orthophosphate (P)	mg/L	-	<0.0030	9578601	<0.0030	<0.0030	9578601	<0.0030	0.0030	9578601
Total Ammonia (N)	mg/L	-	0.064	9584214	0.063	0.081	9584214	0.049	0.0050	9584214
Nitrate plus Nitrite (N)	mg/L	-	0.276	9580774	0.0377	0.214	9580774	0.338	0.0020	9580774
Nitrite (N)	mg/L	-	<0.0020	9580777	<0.0020	<0.0020	9580777	<0.0020	0.0020	9580777
Physical Properties										
Conductivity	uS/cm	-	189	9578287	25.2	128	9578287	352	1.0	9578287
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit N/A = Not Applicable (1) Particulates < 1.5 um present in sample.										



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9294		WK9295		WK9296		
Sampling Date			2019/09/02 17:15		2019/09/02 16:50		2019/09/03 09:25		
COC Number			16814		16814		16814		
	UNITS	Criteria	CC-X	QC Batch	Coffee Mix	QC Batch	Latte Mix	RDL	QC Batch
Calculated Parameters									
Nitrate (N)	mg/L	-	0.269	9576335	0.206	9576335	0.285	0.0020	9576335
Misc. Inorganics									
Fluoride (F)	mg/L	-	0.073	9581306	0.089	9581306	0.075	0.010	9581306
Free Cyanide	mg/L	-	<0.0010	9590469	<0.0010	9590469	<0.0010	0.0010	9590469
Dissolved Organic Carbon (C)	mg/L	-	8.9	9580238	7.2	9580522	8.8	0.50	9582030
pH	pH	6:9	7.50	9578291	7.59	9578291	7.54	N/A	9578291
Alkalinity (Total as CaCO3)	mg/L	-	49.2	9578280	55.3	9578280	48.1	0.50	9578280
Total Organic Carbon (C)	mg/L	-	9.1	9580773	6.7	9580236	9.3	0.50	9580773
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578280	<0.50	9578280	<0.50	0.50	9578280
Bicarbonate (HCO3)	mg/L	-	60.0	9578280	67.4	9578280	58.6	0.50	9578280
Carbonate (CO3)	mg/L	-	<0.50	9578280	<0.50	9578280	<0.50	0.50	9578280
Hydroxide (OH)	mg/L	-	<0.50	9578280	<0.50	9578280	<0.50	0.50	9578280
Total Dissolved Solids	mg/L	-	140	9580824	140	9580824	160	10	9580824
Total Suspended Solids	mg/L	-	<1.0	9580786	1.4	9580786	1.2	1.0	9580863
Anions									
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578833	<0.50	9578833	<0.50	0.50	9578833
Dissolved Sulphate (SO4)	mg/L	-	38	9578833	30	9578833	42	0.50	9578833
Nutrients									
Orthophosphate (P)	mg/L	-	<0.0030	9578601	<0.0030	9578601	<0.0030	0.0030	9578601
Total Ammonia (N)	mg/L	-	0.056	9584214	0.076	9584214	0.022	0.0050	9584214
Nitrate plus Nitrite (N)	mg/L	-	0.269	9580774	0.206	9580774	0.285	0.0020	9580774
Nitrite (N)	mg/L	-	<0.0020	9580777	<0.0020	9580777	<0.0020	0.0020	9580777
Physical Properties									
Conductivity	uS/cm	-	185	9578287	181	9578287	184	1.0	9578287
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit N/A = Not Applicable									



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9297			WK9298			WK9299		
Sampling Date			2019/09/02 15:40			2019/09/01 15:00			2019/09/01 15:50		
COC Number			16814			16814			16814		
	UNITS	Criteria	HC-2.5	RDL	QC Batch	HC-5.0	RDL	QC Batch	HC-A	RDL	QC Batch
Calculated Parameters											
Nitrate (N)	mg/L	-	0.487	0.0020	9576335	0.387	0.0020	9576335	0.326	0.0020	9576335
Misc. Inorganics											
Fluoride (F)	mg/L	-	0.061	0.010	9581306	0.080	0.010	9581299	0.075	0.010	9581306
Free Cyanide	mg/L	-	<0.0010	0.0010	9590469	<0.0010	0.0010	9590469	<0.0010	0.0010	9590469
Dissolved Organic Carbon (C)	mg/L	-	7.8	0.50	9582030	9.3	0.50	9580238	8.8	0.50	9580531
pH	pH	6:9	7.79	N/A	9578300	7.88	N/A	9578300	7.87	N/A	9578300
Alkalinity (Total as CaCO3)	mg/L	-	68.3	0.50	9578296	72.9	0.50	9578296	73.8	0.50	9578296
Total Organic Carbon (C)	mg/L	-	8.0	0.50	9580528	8.7	0.50	9582609	8.5	0.50	9582609
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	0.50	9578296	<0.50	0.50	9578296	<0.50	0.50	9578296
Bicarbonate (HCO3)	mg/L	-	83.3	0.50	9578296	88.9	0.50	9578296	90.1	0.50	9578296
Carbonate (CO3)	mg/L	-	<0.50	0.50	9578296	<0.50	0.50	9578296	<0.50	0.50	9578296
Hydroxide (OH)	mg/L	-	<0.50	0.50	9578296	<0.50	0.50	9578296	<0.50	0.50	9578296
Total Dissolved Solids	mg/L	-	160	10	9580824	160	10	9579603	150	10	9579603
Total Suspended Solids	mg/L	-	6.0	1.0	9580786	<1.3 (1)	1.3	9582147	<2.0 (1)	2.0	9582147
Anions											
Dissolved Chloride (Cl)	mg/L	-	<0.50	0.50	9578833	<0.50	0.50	9578835	<0.50	0.50	9578833
Dissolved Sulphate (SO4)	mg/L	-	29	0.50	9578833	36	0.50	9578835	36	0.50	9578833
Nutrients											
Orthophosphate (P)	mg/L	-	<0.0030	0.0030	9578601	<0.0030	0.0030	9578603	<0.0030	0.0030	9578601
Total Ammonia (N)	mg/L	-	0.059	0.0050	9584214	0.046	0.0050	9584214	0.068	0.0050	9584214
Nitrate plus Nitrite (N)	mg/L	-	0.487	0.0020	9580774	0.387	0.0020	9580774	0.326	0.0020	9580774
Nitrite (N)	mg/L	-	<0.0020	0.0020	9580777	<0.0020	0.0020	9580777	<0.0020	0.0020	9580777
Physical Properties											
Conductivity	uS/cm	-	196	1.0	9578299	216	1.0	9578299	219	1.0	9578299
No Fill	No Exceedance										
Grey	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels										
RDL = Reportable Detection Limit											
N/A = Not Applicable											
(1) RDL raised due to limited initial sample amount.											



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9300		WK9301		WK9302		
Sampling Date			2019/09/01 16:20		2019/09/02 15:05		2019/09/01 14:50		
COC Number			16814		16814		16814		
	UNITS	Criteria	HC-B	QC Batch	HC-C	QC Batch	Halfway Mix	RDL	QC Batch
Calculated Parameters									
Nitrate (N)	mg/L	-	0.436	9576335	0.481	9576335	0.400	0.0020	9576335
Misc. Inorganics									
Fluoride (F)	mg/L	-	0.063	9581306	0.059	9581306	0.078	0.010	9581306
Free Cyanide	mg/L	-	<0.0010	9590469	<0.0010	9590469	<0.0010	0.0010	9590469
Dissolved Organic Carbon (C)	mg/L	-	8.0	9580238	8.0	9580531	9.1	0.50	9580238
pH	pH	6:9	7.86	9578300	7.90	9578300	7.84	N/A	9578300
Alkalinity (Total as CaCO3)	mg/L	-	71.7	9578296	72.1	9578296	73.6	0.50	9578296
Total Organic Carbon (C)	mg/L	-	8.0	9580773	7.6	9580773	9.0	0.50	9582609
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Bicarbonate (HCO3)	mg/L	-	87.4	9578296	88.0	9578296	89.8	0.50	9578296
Carbonate (CO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Hydroxide (OH)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Total Dissolved Solids	mg/L	-	160	9579603	150	9580824	160	10	9579603
Total Suspended Solids	mg/L	-	<1.0	9579604	1.3	9580786	2.5	1.0	9579604
Anions									
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578833	<0.50	9578833	<0.50	0.50	9578833
Dissolved Sulphate (SO4)	mg/L	-	33	9578833	33	9578833	31	0.50	9578833
Nutrients									
Orthophosphate (P)	mg/L	-	<0.0030	9578601	<0.0030	9578601	<0.0030	0.0030	9578601
Total Ammonia (N)	mg/L	-	0.065	9584214	0.055	9584214	0.055	0.0050	9584214
Nitrate plus Nitrite (N)	mg/L	-	0.436	9580774	0.481	9580774	0.400	0.0020	9580774
Nitrite (N)	mg/L	-	<0.0020	9580777	<0.0020	9580777	<0.0020	0.0020	9580777
Physical Properties									
Conductivity	uS/cm	-	211	9578299	210	9578299	217	1.0	9578299
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit N/A = Not Applicable									



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VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9303		WK9304		WK9305		
Sampling Date			2019/09/01 13:56		2019/09/01 13:25		2019/09/01 12:40		
COC Number			16814		16814		16814		
	UNITS	Criteria	IC-0.5	QC Batch	IC-1.5	QC Batch	IC-2.5	RDL	QC Batch
Calculated Parameters									
Nitrate (N)	mg/L	-	0.397	9576335	0.265	9576335	0.130	0.0020	9576335
Misc. Inorganics									
Fluoride (F)	mg/L	-	0.091	9581306	0.058	9581306	0.043	0.010	9582337
Free Cyanide	mg/L	-	<0.0010	9590469	<0.0010	9590469	<0.0010	0.0010	9590469
Dissolved Organic Carbon (C)	mg/L	-	12	9580531	9.4	9580238	13	0.50	9580531
pH	pH	6:9	7.45	9578300	7.53	9578300	6.98	N/A	9578300
Alkalinity (Total as CaCO3)	mg/L	-	37.8	9578296	44.6	9578296	12.4	0.50	9578296
Total Organic Carbon (C)	mg/L	-	12	9582609	9.4	9582609	13	0.50	9582609
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Bicarbonate (HCO3)	mg/L	-	46.1	9578296	54.4	9578296	15.1	0.50	9578296
Carbonate (CO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Hydroxide (OH)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Total Dissolved Solids	mg/L	-	140	9579603	88	9579603	88 (1)	10	9579603
Total Suspended Solids	mg/L	-	<1.0	9579604	1.1	9579604	2.5	1.0	9579604
Anions									
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578833	<0.50	9578833	<0.50	0.50	9578835
Dissolved Sulphate (SO4)	mg/L	-	39	9578833	13	9578833	<0.50	0.50	9578835
Nutrients									
Orthophosphate (P)	mg/L	-	<0.0030	9578601	<0.0030	9578601	<0.0030	0.0030	9578603
Total Ammonia (N)	mg/L	-	0.070	9584214	0.11	9584214	0.052	0.0050	9584214
Nitrate plus Nitrite (N)	mg/L	-	0.397	9580774	0.265	9580774	0.130	0.0020	9580774
Nitrite (N)	mg/L	-	<0.0020	9580777	<0.0020	9580777	<0.0020	0.0020	9580777
Physical Properties									
Conductivity	uS/cm	-	166	9578299	114	9578299	35.4	1.0	9578299
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit N/A = Not Applicable (1) Particulates < 1.5 um present in sample.									



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9306		WK9307		WK9308		
Sampling Date			2019/09/01 11:40		2019/09/01 11:10		2019/09/02 13:20		
COC Number			16814		16814		16814		
	UNITS	Criteria	IC-3.0	QC Batch	IC-4.5	QC Batch	ML-A	RDL	QC Batch
Calculated Parameters									
Nitrate (N)	mg/L	-	0.719	9576335	0.293	9576335	0.828	0.0020	9576335
Misc. Inorganics									
Fluoride (F)	mg/L	-	0.076	9581299	0.077	9581306	0.065	0.010	9581306
Free Cyanide	mg/L	-	0.0010	9590470	<0.0010	9590470	<0.0010	0.0010	9590470
Dissolved Organic Carbon (C)	mg/L	-	9.8	9580522	11	9580522	10	0.50	9582030
pH	pH	6:9	7.78	9578300	7.44	9578300	7.68	N/A	9578300
Alkalinity (Total as CaCO3)	mg/L	-	63.5	9578296	44.1	9578296	61.1	0.50	9578296
Total Organic Carbon (C)	mg/L	-	10	9582609	9.7	9582609	9.8	0.50	9580773
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Bicarbonate (HCO3)	mg/L	-	77.5	9578296	53.8	9578296	74.5	0.50	9578296
Carbonate (CO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Hydroxide (OH)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Total Dissolved Solids	mg/L	-	150	9579603	96	9579603	160	10	9580824
Total Suspended Solids	mg/L	-	<1.0	9579604	<1.0	9579604	<1.0	1.0	9580786
Anions									
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578835	<0.50	9578833	<0.50	0.50	9578833
Dissolved Sulphate (SO4)	mg/L	-	42	9578835	27	9578833	42	0.50	9578833
Nutrients									
Orthophosphate (P)	mg/L	-	<0.0030	9578881	<0.0030	9578601	<0.0030	0.0030	9578601
Total Ammonia (N)	mg/L	-	0.046	9584217	0.022	9584217	0.060	0.0050	9584217
Nitrate plus Nitrite (N)	mg/L	-	0.719	9580779	0.293	9580779	0.828	0.0020	9580779
Nitrite (N)	mg/L	-	<0.0020	9580781	<0.0020	9580781	<0.0020	0.0020	9580781
Physical Properties									
Conductivity	uS/cm	-	214	9578299	145	9578299	225	1.0	9578299
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit N/A = Not Applicable									



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9309			WK9310		WK9311		
Sampling Date			2019/09/02 13:50			2019/09/02 14:15		2019/09/02 11:20		
COC Number			16814			16814		16814		
	UNITS	Criteria	ML-B	RDL	QC Batch	ML-C (or YT-24-2)	QC Batch	ML-1.0 (or YT-24-1)	RDL	QC Batch

Calculated Parameters

Nitrate (N)	mg/L	-	0.976	0.0020	9576335	1.22	9576335	0.847	0.0020	9576335
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Misc. Inorganics

Fluoride (F)	mg/L	-	0.046	0.010	9581306	0.042	9581306	0.078	0.010	9581306
Free Cyanide	mg/L	-	<0.0010	0.0010	9590470	<0.0010	9590470	<0.0010	0.0010	9590470
Dissolved Organic Carbon (C)	mg/L	-	10	0.50	9580522	8.8	9580522	9.8	0.50	9580522
pH	pH	6:9	7.34	N/A	9578300	7.17	9578300	7.72	N/A	9578300
Alkalinity (Total as CaCO ₃)	mg/L	-	36.6	0.50	9578296	26.4	9578296	62.7	0.50	9578296
Total Organic Carbon (C)	mg/L	-	9.9	0.50	9580236	8.8	9580528	9.6	0.50	9580236
Alkalinity (PP as CaCO ₃)	mg/L	-	<0.50	0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Bicarbonate (HCO ₃)	mg/L	-	44.6	0.50	9578296	32.2	9578296	76.5	0.50	9578296
Carbonate (CO ₃)	mg/L	-	<0.50	0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Hydroxide (OH)	mg/L	-	<0.50	0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Total Dissolved Solids	mg/L	-	120	10	9580824	72	9580824	180	10	9580824
Total Suspended Solids	mg/L	-	37 (1)	1.1	9580786	12	9580786	<1.0	1.0	9580786

Anions

Dissolved Chloride (Cl)	mg/L	-	<0.50	0.50	9578835	<0.50	9578835	<0.50	0.50	9578835
Dissolved Sulphate (SO ₄)	mg/L	-	27	0.50	9578835	2.0	9578835	51	0.50	9578835

Nutrients

Orthophosphate (P)	mg/L	-	<0.0030	0.0030	9578603	<0.0030	9578603	<0.0030	0.0030	9578603
Total Ammonia (N)	mg/L	-	0.032	0.0050	9584217	0.067	9584217	0.030	0.0050	9584217
Nitrate plus Nitrite (N)	mg/L	-	0.976	0.0020	9580779	1.22	9580779	0.847	0.0020	9580779
Nitrite (N)	mg/L	-	<0.0020	0.0020	9580781	<0.0020	9580781	<0.0020	0.0020	9580781

Physical Properties

Conductivity	uS/cm	-	137	1.0	9578299	69.3	9578299	233	1.0	9578299
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No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) RDL raised due to limited initial sample amount.



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9312		WK9313		WK9314		
Sampling Date			2019/09/02 11:10		2019/09/02 16:25		2019/09/01 10:40		
COC Number			16814		16814		16814		
	UNITS	Criteria	YT-24 Mix	QC Batch	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Calculated Parameters									
Nitrate (N)	mg/L	-	0.214	9576335	<0.0020	9576335	<0.0020	0.0020	9576335
Misc. Inorganics									
Fluoride (F)	mg/L	-	0.110	9581306	0.130	9581299	0.130	0.010	9581299
Free Cyanide	mg/L	-	<0.0010	9590470	<0.0010	9590470	<0.0010	0.0010	9590470
Dissolved Organic Carbon (C)	mg/L	-	3.8	9580522	1.5	9580522	2.0	0.50	9580522
pH	pH	6:9	7.84	9578300	7.93	9578300	7.83	N/A	9578300
Alkalinity (Total as CaCO3)	mg/L	-	67.7	9578296	70.7	9578296	69.2	0.50	9578296
Total Organic Carbon (C)	mg/L	-	3.1	9580236	1.8	9580236	1.6	0.50	9582609
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Bicarbonate (HCO3)	mg/L	-	82.6	9578296	86.2	9578296	84.4	0.50	9578296
Carbonate (CO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Hydroxide (OH)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	0.50	9578296
Total Dissolved Solids	mg/L	-	100	9580824	110	9580824	94	10	9579603
Total Suspended Solids	mg/L	-	5.1	9580786	2.2	9580786	2.1	1.0	9579604
Anions									
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578835	<0.50	9578835	<0.50	0.50	9578835
Dissolved Sulphate (SO4)	mg/L	-	27	9578835	21	9578835	21	0.50	9578835
Nutrients									
Orthophosphate (P)	mg/L	-	<0.0030	9578603	<0.0030	9578603	<0.0030	0.0030	9578881
Total Ammonia (N)	mg/L	-	0.053	9584217	0.050	9584217	0.023	0.0050	9584217
Nitrate plus Nitrite (N)	mg/L	-	0.214	9580779	<0.0020	9580779	<0.0020	0.0020	9580779
Nitrite (N)	mg/L	-	<0.0020	9580781	<0.0020	9580781	<0.0020	0.0020	9580781
Physical Properties									
Conductivity	uS/cm	-	186	9578299	178	9578299	173	1.0	9578299
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit N/A = Not Applicable									

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID			WK9315		WK9316		WK9317	WK9318		
Sampling Date			2019/09/02		2019/09/02		2019/09/03 03:10	2019/09/03		
COC Number			16814		16814		16814	16814		
	UNITS	Criteria	Sample A	QC Batch	Sample B	QC Batch	Field Blank	Trip Blank	RDL	QC Batch
Calculated Parameters										
Nitrate (N)	mg/L	-	0.178	9576335	0.263	9576335	<0.0020	<0.0020	0.0020	9576335
Misc. Inorganics										
Fluoride (F)	mg/L	-	0.110	9581299	0.075	9581299	<0.010	<0.010	0.010	9581299
Free Cyanide	mg/L	-	<0.0010	9590470	<0.0010	9590470	<0.0010	<0.0010	0.0010	9590470
Dissolved Organic Carbon (C)	mg/L	-	2.4	9580522	9.6	9580522	<0.50	<0.50	0.50	9580522
pH	pH	6:9	7.86	9578300	7.59	9578300	5.07	5.00	N/A	9578291
Alkalinity (Total as CaCO3)	mg/L	-	67.7	9578296	49.1	9578296	0.78	<0.50	0.50	9578280
Total Organic Carbon (C)	mg/L	-	3.4	9580773	9.0	9580236	<0.50	<0.50	0.50	9580528
Alkalinity (PP as CaCO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	<0.50	0.50	9578280
Bicarbonate (HCO3)	mg/L	-	82.6	9578296	59.9	9578296	0.95	<0.50	0.50	9578280
Carbonate (CO3)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	<0.50	0.50	9578280
Hydroxide (OH)	mg/L	-	<0.50	9578296	<0.50	9578296	<0.50	<0.50	0.50	9578280
Total Dissolved Solids	mg/L	-	120	9580824	140	9580824	<10	<10	10	9580824
Total Suspended Solids	mg/L	-	1.7	9580786	<1.0	9580786	<1.0	<1.0	1.0	9580863
Anions										
Dissolved Chloride (Cl)	mg/L	-	<0.50	9578835	<0.50	9578835	<0.50	<0.50	0.50	9578835
Dissolved Sulphate (SO4)	mg/L	-	28	9578835	38	9578835	<0.50	<0.50	0.50	9578835
Nutrients										
Orthophosphate (P)	mg/L	-	<0.0030	9578603	<0.0030	9578603	<0.0030	<0.0030	0.0030	9578603
Total Ammonia (N)	mg/L	-	0.057	9584217	0.059	9584217	0.056	0.045	0.0050	9587211
Nitrate plus Nitrite (N)	mg/L	-	0.178	9580779	0.263	9580779	<0.0020	<0.0020	0.0020	9580779
Nitrite (N)	mg/L	-	<0.0020	9580781	<0.0020	9580781	<0.0020	<0.0020	0.0020	9580781
Physical Properties										
Conductivity	uS/cm	-	190	9578299	184	9578299	<1.0	<1.0	1.0	9578287
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit N/A = Not Applicable										

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BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9286	WK9287	WK9288	WK9289	WK9290		
Sampling Date			2019/09/03 09:45	2019/09/03 13:25	2019/09/03 13:50	2019/09/03 10:45	2019/09/03 08:15		
COC Number			16814	16814	16814	16814	16814		
	UNITS	Criteria	CC-0.5	CC-1.0	CC-1.5	CC-3.5	CC-4.5	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	FIELD	FIELD	FIELD	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	71.2	393	129	123	75.8	0.50	9575525
Elements									
Dissolved Mercury (Hg)	ug/L	-	0.0023	<0.0020	0.0041	0.0034	0.0032	0.0020	9577999
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	-	63.7	6.33	61.6	40.0	48.9	0.50	9578342
Dissolved Antimony (Sb)	ug/L	-	0.130	0.146	0.107	0.096	0.111	0.020	9578342
Dissolved Arsenic (As)	ug/L	-	0.405	1.09	0.558	0.332	0.392	0.020	9578342
Dissolved Barium (Ba)	ug/L	-	35.5	85.8	34.7	48.0	41.3	0.020	9578342
Dissolved Beryllium (Be)	ug/L	-	<0.010	<0.010	0.013	0.011	<0.010	0.010	9578342
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9578342
Dissolved Boron (B)	ug/L	-	<10	<10	<10	<10	<10	10	9578342
Dissolved Cadmium (Cd)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	0.0061	0.0050	9578342
Dissolved Chromium (Cr)	ug/L	20	0.33	0.11	0.31	0.28	0.39	0.10	9578342
Dissolved Cobalt (Co)	ug/L	-	0.0493	0.0244	0.0353	0.0367	0.0468	0.0050	9578342
Dissolved Copper (Cu)	ug/L	-	1.98	0.569	1.26	1.22	1.79	0.050	9578342
Dissolved Iron (Fe)	ug/L	-	50.1	2.9	36.7	21.7	37.1	1.0	9578342
Dissolved Lead (Pb)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9578342
Dissolved Lithium (Li)	ug/L	-	0.95	4.60	1.56	0.60	0.68	0.50	9578342
Dissolved Manganese (Mn)	ug/L	-	6.74	0.687	3.80	0.783	4.74	0.050	9578342
Dissolved Molybdenum (Mo)	ug/L	-	0.680	0.321	0.179	0.227	0.636	0.050	9578342
Dissolved Nickel (Ni)	ug/L	-	0.901	0.393	0.458	0.487	0.920	0.020	9578342
Dissolved Phosphorus (P)	ug/L	-	5.3	4.0	6.4	4.2	4.0	2.0	9578342
Dissolved Selenium (Se)	ug/L	-	0.101	0.332	0.090	0.072	0.078	0.040	9578342
Dissolved Silicon (Si)	ug/L	-	5540	5190	5200	4730	4960	50	9578342
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9578342
Dissolved Strontium (Sr)	ug/L	-	90.1	1040	287	251	109	0.050	9578342
Dissolved Thallium (Tl)	ug/L	-	0.0047	0.0034	0.0024	0.0022	0.0031	0.0020	9578342
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9578342
Dissolved Titanium (Ti)	ug/L	-	0.65	<0.50	0.59	0.54	<0.50	0.50	9578342
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9286	WK9287	WK9288	WK9289	WK9290		
Sampling Date			2019/09/03 09:45	2019/09/03 13:25	2019/09/03 13:50	2019/09/03 10:45	2019/09/03 08:15		
COC Number			16814	16814	16814	16814	16814		
	UNITS	Criteria	CC-0.5	CC-1.0	CC-1.5	CC-3.5	CC-4.5	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	3.85	29.8	7.12	5.51	2.81	0.0020	9578342
Dissolved Vanadium (V)	ug/L	-	0.32	<0.20	0.29	0.29	0.37	0.20	9578342
Dissolved Zinc (Zn)	ug/L	-	0.38	0.18	0.37	0.22	0.25	0.10	9578342
Dissolved Zirconium (Zr)	ug/L	-	0.45	<0.10	0.54	0.50	0.43	0.10	9578342
Dissolved Calcium (Ca)	mg/L	-	18.2	101	34.4	33.4	19.9	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	6.26	34.4	10.3	9.71	6.37	0.050	9575526
Dissolved Potassium (K)	mg/L	-	1.07	5.08	2.01	2.00	1.16	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	3.21	4.37	3.00	3.18	3.05	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	12.0	55.3	19.9	20.1	11.8	3.0	9575526
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9291		WK9292		WK9293		
Sampling Date			2019/09/03 15:10		2019/09/03 14:50		2019/09/03 12:45		
COC Number			16814		16814		16814		
	UNITS	Criteria	CC-6.0	QC Batch	CC-A	QC Batch	CC-B	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	9.67	9575525	52.4	9575525	155	0.50	9575525
Elements									
Dissolved Mercury (Hg)	ug/L	-	0.0042	9577999	0.0046	9577999	0.0032	0.0020	9577999
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	-	120	9578342	78.6	9578342	46.2	0.50	9578342
Dissolved Antimony (Sb)	ug/L	-	0.068	9586061	0.109	9578342	0.114	0.020	9578342
Dissolved Arsenic (As)	ug/L	-	0.465	9578342	0.477	9578342	0.564	0.020	9578342
Dissolved Barium (Ba)	ug/L	-	9.64	9578342	19.8	9578342	40.9	0.020	9578342
Dissolved Beryllium (Be)	ug/L	-	0.020	9578342	0.016	9578342	0.011	0.010	9578342
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	9578342	<0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Boron (B)	ug/L	-	<10	9578342	<10	9578342	<10	10	9578342
Dissolved Cadmium (Cd)	ug/L	-	0.0051	9578342	<0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Chromium (Cr)	ug/L	20	0.44	9578342	0.36	9578342	0.27	0.10	9578342
Dissolved Cobalt (Co)	ug/L	-	0.101	9578342	0.0346	9578342	0.0390	0.0050	9578342
Dissolved Copper (Cu)	ug/L	-	1.18	9578342	1.38	9578342	1.18	0.050	9578342
Dissolved Iron (Fe)	ug/L	-	156	9578342	46.6	9578342	30.0	1.0	9578342
Dissolved Lead (Pb)	ug/L	-	0.0112	9578342	0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Lithium (Li)	ug/L	-	<0.50	9578342	0.99	9578342	1.40	0.50	9578342
Dissolved Manganese (Mn)	ug/L	-	29.8	9578342	4.26	9578342	6.07	0.050	9578342
Dissolved Molybdenum (Mo)	ug/L	-	<0.050	9578342	0.103	9578342	0.269	0.050	9578342
Dissolved Nickel (Ni)	ug/L	-	0.626	9578342	0.490	9578342	0.398	0.020	9578342
Dissolved Phosphorus (P)	ug/L	-	5.3	9578342	4.9	9578342	4.3	2.0	9578342
Dissolved Selenium (Se)	ug/L	-	0.051	9578342	0.050	9578342	0.085	0.040	9578342
Dissolved Silicon (Si)	ug/L	-	5240	9578342	5450	9578342	4990	50	9578342
Dissolved Silver (Ag)	ug/L	-	0.0059	9578342	<0.0050	9578342	<0.0050 (1)	0.0050	9578342
Dissolved Strontium (Sr)	ug/L	-	14.7	9578342	93.8	9578342	376	0.050	9578342
Dissolved Thallium (Tl)	ug/L	-	0.0028	9578342	0.0030	9578342	0.0028	0.0020	9578342
Dissolved Tin (Sn)	ug/L	-	<0.20	9578342	<0.20	9578342	<0.20	0.20	9578342
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
(1) Matrix Spike outside acceptance criteria due to sample matrix interference.									



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9291		WK9292		WK9293		
Sampling Date			2019/09/03 15:10		2019/09/03 14:50		2019/09/03 12:45		
COC Number			16814		16814		16814		
	UNITS	Criteria	CC-6.0	QC Batch	CC-A	QC Batch	CC-B	RDL	QC Batch
Dissolved Titanium (Ti)	ug/L	-	0.74	9578342	0.58	9578342	0.55	0.50	9578342
Dissolved Uranium (U)	ug/L	-	0.361	9578342	2.04	9578342	9.52	0.0020	9578342
Dissolved Vanadium (V)	ug/L	-	0.40	9578342	0.31	9578342	0.30	0.20	9578342
Dissolved Zinc (Zn)	ug/L	-	0.65	9586061	0.32	9578342	0.26	0.10	9586061
Dissolved Zirconium (Zr)	ug/L	-	0.74	9578342	0.68	9578342	0.44	0.10	9578342
Dissolved Calcium (Ca)	mg/L	-	2.63	9575526	14.9	9575526	41.3	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	0.757	9575526	3.68	9575526	12.5	0.050	9575526
Dissolved Potassium (K)	mg/L	-	0.091	9575526	0.792	9575526	2.73	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	0.914	9575526	1.97	9575526	2.99	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	<3.0	9575526	8.3	9575526	24.7	3.0	9575526
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT**LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)**

BV Labs ID			WK9294		WK9295		WK9296	WK9297		
Sampling Date			2019/09/02 17:15		2019/09/02 16:50		2019/09/03 09:25	2019/09/02 15:40		
COC Number			16814		16814		16814	16814		
	UNITS	Criteria	CC-X	QC Batch	Coffee Mix	QC Batch	Latte Mix	HC-2.5	RDL	QC Batch

Calculated Parameters										
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	77.0	9575525	75.9	9575525	75.0	84.1	0.50	9575525

Elements										
Dissolved Mercury (Hg)	ug/L	-	0.0030	9577999	0.0022	9578032	0.0034	0.0028	0.0020	9577999

Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	-	51.4	9578342	37.9	9578342	58.6	63.1	0.50	9578342
Dissolved Antimony (Sb)	ug/L	-	0.121	9578342	0.091	9578342	0.103	0.367	0.020	9578342
Dissolved Arsenic (As)	ug/L	-	0.366	9578342	0.378	9578342	0.395	0.972	0.020	9578342
Dissolved Barium (Ba)	ug/L	-	42.1	9578342	40.2	9578342	36.0	32.7	0.020	9578342
Dissolved Beryllium (Be)	ug/L	-	<0.010	9578342	<0.010	9578342	<0.010	0.012	0.010	9578342
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	9578342	<0.0050	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Boron (B)	ug/L	-	<10	9578342	<10	9578342	<10	<10	10	9578342
Dissolved Cadmium (Cd)	ug/L	-	0.0055	9578342	0.0072	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Chromium (Cr)	ug/L	20	0.31	9578342	0.25	9578342	0.31	0.37	0.10	9578342
Dissolved Cobalt (Co)	ug/L	-	0.0423	9578342	0.0325	9578342	0.0423	0.0433	0.0050	9578342
Dissolved Copper (Cu)	ug/L	-	1.80	9578342	1.39	9578342	1.83	1.23	0.050	9578342
Dissolved Iron (Fe)	ug/L	-	34.4	9578342	26.6	9578342	44.1	41.6	1.0	9578342
Dissolved Lead (Pb)	ug/L	-	<0.0050	9578342	<0.0050	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Lithium (Li)	ug/L	-	0.64	9578342	0.73	9578342	0.87	1.04	0.50	9578342
Dissolved Manganese (Mn)	ug/L	-	4.19	9578342	4.50	9578342	5.51	3.79	0.050	9578342
Dissolved Molybdenum (Mo)	ug/L	-	0.606	9578342	0.778	9578342	0.627	1.19	0.050	9578342
Dissolved Nickel (Ni)	ug/L	-	0.791	9578342	0.641	9578342	0.808	0.535	0.020	9578342
Dissolved Phosphorus (P)	ug/L	-	4.7	9578342	3.1	9578342	3.9	4.6	2.0	9578342
Dissolved Selenium (Se)	ug/L	-	0.075	9578342	0.122	9578342	0.084	0.071	0.040	9578342
Dissolved Silicon (Si)	ug/L	-	4940	9578342	4170	9578342	5080	5100	50	9578342
Dissolved Silver (Ag)	ug/L	-	<0.0050	9578342	<0.0050	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Strontium (Sr)	ug/L	-	108	9578342	106	9578342	107	253	0.050	9578342
Dissolved Thallium (Tl)	ug/L	-	0.0028	9578342	0.0027	9578342	0.0041	<0.0020	0.0020	9578342
Dissolved Tin (Sn)	ug/L	-	<0.20	9578342	<0.20	9578342	<0.20	<0.20	0.20	9578342
Dissolved Titanium (Ti)	ug/L	-	0.55	9578342	<0.50	9578342	0.58	0.83	0.50	9578342

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9294		WK9295		WK9296	WK9297		
Sampling Date			2019/09/02 17:15		2019/09/02 16:50		2019/09/03 09:25	2019/09/02 15:40		
COC Number			16814		16814		16814	16814		
	UNITS	Criteria	CC-X	QC Batch	Coffee Mix	QC Batch	Latte Mix	HC-2.5	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	2.71	9578342	2.04	9578342	4.04	24.5	0.0020	9578342
Dissolved Vanadium (V)	ug/L	-	0.37	9578342	0.30	9578342	0.39	0.40	0.20	9578342
Dissolved Zinc (Zn)	ug/L	-	0.27	9578342	0.44	9578342	0.30	0.21	0.10	9578342
Dissolved Zirconium (Zr)	ug/L	-	0.41	9578342	0.29	9578342	0.42	0.47	0.10	9578342
Dissolved Calcium (Ca)	mg/L	-	19.9	9575526	20.2	9575526	19.3	21.7	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	6.63	9575526	6.17	9575526	6.50	7.26	0.050	9575526
Dissolved Potassium (K)	mg/L	-	1.19	9575526	1.06	9575526	1.15	1.79	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	3.14	9575526	2.66	9575526	3.16	2.29	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	11.9	9575526	10.1	9575526	12.9	8.5	3.0	9575526
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit										

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT**LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)**

BV Labs ID			WK9298	WK9299		WK9300		WK9301		
Sampling Date			2019/09/01 15:00	2019/09/01 15:50		2019/09/01 16:20		2019/09/02 15:05		
COC Number			16814	16814		16814		16814		
	UNITS	Criteria	HC-5.0	HC-A	QC Batch	HC-B	QC Batch	HC-C	RDL	QC Batch

Calculated Parameters										
Filter and HNO3 Preservation	N/A	-	FIELD	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	94.0	95.1	9575525	91.2	9575525	89.8	0.50	9575525

Elements										
Dissolved Mercury (Hg)	ug/L	-	0.0029	0.0030	9578032	0.0026	9577999	0.0027	0.0020	9577999

Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	-	33.5	34.6	9578342	37.4	9578342	45.2	0.50	9578342
Dissolved Antimony (Sb)	ug/L	-	0.204	0.221	9578342	0.286	9578342	0.331	0.020	9578342
Dissolved Arsenic (As)	ug/L	-	0.603	0.592	9578342	0.765	9578342	0.844	0.020	9578342
Dissolved Barium (Ba)	ug/L	-	39.4	40.2	9578342	33.8	9578342	33.4	0.020	9578342
Dissolved Beryllium (Be)	ug/L	-	<0.010	<0.010	9578342	<0.010	9578342	<0.010	0.010	9578342
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	9578342	<0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Boron (B)	ug/L	-	<10	<10	9578342	<10	9578342	<10	10	9578342
Dissolved Cadmium (Cd)	ug/L	-	<0.0050	<0.0050	9578342	<0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Chromium (Cr)	ug/L	20	0.28	0.29	9578342	0.31	9578342	0.28	0.10	9578342
Dissolved Cobalt (Co)	ug/L	-	0.0350	0.0385	9578342	0.0362	9578342	0.0363	0.0050	9578342
Dissolved Copper (Cu)	ug/L	-	1.42	1.36	9578342	1.15	9578342	1.10	0.050	9578342
Dissolved Iron (Fe)	ug/L	-	19.5	21.1	9578342	21.6	9578342	24.7	1.0	9578342
Dissolved Lead (Pb)	ug/L	-	<0.0050	<0.0050	9578342	<0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Lithium (Li)	ug/L	-	0.84	0.89	9578342	0.81	9578342	0.94	0.50	9578342
Dissolved Manganese (Mn)	ug/L	-	0.355	0.644	9578342	1.46	9578342	1.04	0.050	9578342
Dissolved Molybdenum (Mo)	ug/L	-	0.613	0.593	9578342	0.939	9578342	0.982	0.050	9578342
Dissolved Nickel (Ni)	ug/L	-	0.667	0.631	9578342	0.479	9578342	0.578	0.020	9578342
Dissolved Phosphorus (P)	ug/L	-	4.0	4.2	9578342	3.9	9578342	3.5	2.0	9578342
Dissolved Selenium (Se)	ug/L	-	0.061	0.070	9578342	0.054	9578342	0.052	0.040	9578342
Dissolved Silicon (Si)	ug/L	-	4610	4670	9578342	4710	9578342	4910	50	9578342
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	9578342	<0.0050	9578342	<0.0050	0.0050	9578342
Dissolved Strontium (Sr)	ug/L	-	226	231	9578342	234	9578342	246	0.050	9578342
Dissolved Thallium (Tl)	ug/L	-	0.0022	0.0021	9578342	<0.0020	9578342	0.0020	0.0020	9578342
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	9578342	<0.20	9578342	<0.20	0.20	9578342
Dissolved Titanium (Ti)	ug/L	-	0.58	0.55	9578342	0.50	9578342	<0.50	0.50	9578342

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9298	WK9299		WK9300		WK9301		
Sampling Date			2019/09/01 15:00	2019/09/01 15:50		2019/09/01 16:20		2019/09/02 15:05		
COC Number			16814	16814		16814		16814		
	UNITS	Criteria	HC-5.0	HC-A	QC Batch	HC-B	QC Batch	HC-C	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	9.87	10.6	9578342	18.8	9578342	21.2	0.0020	9578342
Dissolved Vanadium (V)	ug/L	-	0.34	0.36	9578342	0.38	9578342	0.34	0.20	9578342
Dissolved Zinc (Zn)	ug/L	-	0.23	0.17	9578342	0.56 (1)	9586061	0.15	0.10	9578342
Dissolved Zirconium (Zr)	ug/L	-	0.38	0.39	9578342	0.39	9578342	0.40	0.10	9578342
Dissolved Calcium (Ca)	mg/L	-	25.0	25.3	9575526	23.6	9575526	23.3	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	7.65	7.76	9575526	7.84	9575526	7.68	0.050	9575526
Dissolved Potassium (K)	mg/L	-	2.00	2.04	9575526	1.61	9575526	1.65	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	2.80	2.87	9575526	2.70	9575526	2.48	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	10.1	10.9	9575526	10.4	9575526	9.7	3.0	9575526
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										
(1) Dissolved greater than total. Reanalysis yields similar results.										



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9302		WK9303		WK9304	WK9305		
Sampling Date			2019/09/01 14:50		2019/09/01 13:56		2019/09/01 13:25	2019/09/01 12:40		
COC Number			16814		16814		16814	16814		
	UNITS	Criteria	Halfway Mix	QC Batch	IC-0.5	QC Batch	IC-1.5	IC-2.5	RDL	QC Batch

Calculated Parameters										
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	94.0	9575525	67.8	9575525	47.4	16.5	0.50	9575525

Elements										
Dissolved Mercury (Hg)	ug/L	-	0.0027	9578032	0.0025	9577999	0.0049	0.0039	0.0020	9578032

Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	-	33.1	9578342	91.1	9578342	75.7	163	0.50	9578342
Dissolved Antimony (Sb)	ug/L	-	0.228	9578342	0.097	9578342	0.091	0.173	0.020	9578342
Dissolved Arsenic (As)	ug/L	-	0.587	9578342	0.478	9578342	0.283	1.01	0.020	9578342
Dissolved Barium (Ba)	ug/L	-	40.4	9578342	24.3	9578342	26.7	13.5	0.020	9578342
Dissolved Beryllium (Be)	ug/L	-	0.013	9578342	0.019	9578342	0.013	0.021	0.010	9578342
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	9578342	<0.0050	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Boron (B)	ug/L	-	<10	9578342	<10	9578342	<10	<10	10	9578342
Dissolved Cadmium (Cd)	ug/L	-	<0.0050	9578342	0.0271	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Chromium (Cr)	ug/L	20	0.28	9578342	0.44	9578342	0.35	0.60	0.10	9578342
Dissolved Cobalt (Co)	ug/L	-	0.0348	9578342	0.101	9578342	0.0377	0.0963	0.0050	9578342
Dissolved Copper (Cu)	ug/L	-	1.40	9578342	2.51	9578342	1.54	1.61	0.050	9578342
Dissolved Iron (Fe)	ug/L	-	19.1	9578342	68.5	9578342	47.0	327	1.0	9578342
Dissolved Lead (Pb)	ug/L	-	<0.0050	9578342	0.0067	9578342	0.0102	0.0228	0.0050	9578342
Dissolved Lithium (Li)	ug/L	-	0.83	9578342	1.39	9578342	1.71	0.64	0.50	9578342
Dissolved Manganese (Mn)	ug/L	-	0.413	9578342	7.00	9578342	1.68	3.91	0.050	9578342
Dissolved Molybdenum (Mo)	ug/L	-	0.586	9578342	0.347	9578342	0.266	0.108	0.050	9578342
Dissolved Nickel (Ni)	ug/L	-	0.646	9578342	1.98	9578342	0.611	0.874	0.020	9578342
Dissolved Phosphorus (P)	ug/L	-	4.3	9578342	6.4	9578342	4.0	7.7	2.0	9578342
Dissolved Selenium (Se)	ug/L	-	0.069	9578342	0.182	9578342	0.060	0.068	0.040	9578342
Dissolved Silicon (Si)	ug/L	-	4560	9578342	5270	9578342	5040	5690	50	9578342
Dissolved Silver (Ag)	ug/L	-	<0.0050	9578342	<0.0050	9578342	<0.0050	<0.0050	0.0050	9578342
Dissolved Strontium (Sr)	ug/L	-	226	9578342	58.3	9578342	77.2	21.5	0.050	9578342
Dissolved Thallium (Tl)	ug/L	-	<0.0020	9578342	0.0042	9578342	0.0033	<0.0020	0.0020	9578342
Dissolved Tin (Sn)	ug/L	-	<0.20	9578342	<0.20	9578342	<0.20	<0.20	0.20	9578342
Dissolved Titanium (Ti)	ug/L	-	<0.50	9578342	1.08	9578342	0.97	2.25	0.50	9578342

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9302		WK9303		WK9304	WK9305		
Sampling Date			2019/09/01 14:50		2019/09/01 13:56		2019/09/01 13:25	2019/09/01 12:40		
COC Number			16814		16814		16814	16814		
	UNITS	Criteria	Halfway Mix	QC Batch	IC-0.5	QC Batch	IC-1.5	IC-2.5	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	9.88	9578342	0.998	9578342	1.47	0.691	0.0020	9578342
Dissolved Vanadium (V)	ug/L	-	0.30	9578342	0.45	9578342	0.38	0.64	0.20	9578342
Dissolved Zinc (Zn)	ug/L	-	0.12	9578342	1.68	9578342	0.29	0.48	0.10	9578342
Dissolved Zirconium (Zr)	ug/L	-	0.38	9578342	0.67	9578342	0.57	1.19	0.10	9578342
Dissolved Calcium (Ca)	mg/L	-	25.2	9575526	17.3	9575526	12.9	4.56	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	7.56	9575526	5.97	9575526	3.68	1.25	0.050	9575526
Dissolved Potassium (K)	mg/L	-	2.00	9575526	0.764	9575526	0.821	0.168	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	2.80	9575526	2.17	9575526	2.43	1.22	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	10.6	9575526	11.7	9575526	4.1	<3.0	3.0	9575526
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit										

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT**LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)**

BV Labs ID			WK9306		WK9307	WK9308		WK9309		
Sampling Date			2019/09/01 11:40		2019/09/01 11:10	2019/09/02 13:20		2019/09/02 13:50		
COC Number			16814		16814	16814		16814		
	UNITS	Criteria	IC-3.0	QC Batch	IC-4.5	ML-A	QC Batch	ML-B	RDL	QC Batch

Calculated Parameters										
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	FIELD	ONSITE	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	96.3	9575525	59.8	97.0	9575525	58.5	0.50	9575525

Elements										
Dissolved Mercury (Hg)	ug/L	-	0.0025	9577999	0.0032	0.0038	9578032	0.0039	0.0020	9577999

Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	-	40.6	9578351	65.5	43.7	9578351	65.3	0.50	9578351
Dissolved Antimony (Sb)	ug/L	-	0.314	9578351	0.109	0.224	9578351	0.286	0.020	9578351
Dissolved Arsenic (As)	ug/L	-	1.10	9578351	0.440	0.464	9578351	0.506	0.020	9578351
Dissolved Barium (Ba)	ug/L	-	30.4	9578351	30.2	46.7	9578351	37.1	0.020	9578351
Dissolved Beryllium (Be)	ug/L	-	0.015	9578351	0.011	0.013	9578351	0.028	0.010	9578351
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	9578351	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Boron (B)	ug/L	-	<10	9578351	<10	<10	9578351	<10	10	9578351
Dissolved Cadmium (Cd)	ug/L	-	<0.0050	9578351	0.0095	0.0060	9578351	0.0063	0.0050	9578351
Dissolved Chromium (Cr)	ug/L	20	0.28	9578351	0.38	0.33	9578351	0.37	0.10	9578351
Dissolved Cobalt (Co)	ug/L	-	0.0456	9578351	0.0453	0.0498	9578351	0.0572	0.0050	9578351
Dissolved Copper (Cu)	ug/L	-	1.63	9578351	1.77	1.48	9578351	1.44	0.050	9578351
Dissolved Iron (Fe)	ug/L	-	23.5	9578351	57.4	27.3	9578351	36.7	1.0	9578351
Dissolved Lead (Pb)	ug/L	-	<0.0050	9578351	0.0051	<0.0050	9578351	0.0085	0.0050	9578351
Dissolved Lithium (Li)	ug/L	-	<0.50	9578351	1.16	<0.50	9578351	<0.50	0.50	9578351
Dissolved Manganese (Mn)	ug/L	-	0.790	9578351	3.89	2.45	9578351	6.26	0.050	9578351
Dissolved Molybdenum (Mo)	ug/L	-	0.424	9578351	0.261	0.528	9578351	0.379	0.050	9578351
Dissolved Nickel (Ni)	ug/L	-	0.634	9578351	0.967	0.656	9578351	0.708	0.020	9578351
Dissolved Phosphorus (P)	ug/L	-	4.8	9578351	4.7	5.1	9578351	6.3	2.0	9578351
Dissolved Selenium (Se)	ug/L	-	0.053	9578351	0.083	0.058	9578351	0.050	0.040	9578351
Dissolved Silicon (Si)	ug/L	-	5010	9578351	5090	4120	9578351	4250	50	9578351
Dissolved Silver (Ag)	ug/L	-	<0.0050	9578351	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Strontium (Sr)	ug/L	-	172	9578351	85.1	187	9578351	77.1	0.050	9578351
Dissolved Thallium (Tl)	ug/L	-	0.0037	9578351	0.0037	0.0028	9578351	0.0024	0.0020	9578351
Dissolved Tin (Sn)	ug/L	-	<0.20	9578351	<0.20	<0.20	9578351	<0.20	0.20	9578351
Dissolved Titanium (Ti)	ug/L	-	<0.50	9578351	0.65	0.78	9578351	0.78	0.50	9578351

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9306		WK9307	WK9308		WK9309		
Sampling Date			2019/09/01 11:40		2019/09/01 11:10	2019/09/02 13:20		2019/09/02 13:50		
COC Number			16814		16814	16814		16814		
	UNITS	Criteria	IC-3.0	QC Batch	IC-4.5	ML-A	QC Batch	ML-B	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	4.81	9578351	1.07	5.05	9578351	2.39	0.0020	9578351
Dissolved Vanadium (V)	ug/L	-	0.24	9578351	0.37	0.29	9578351	0.30	0.20	9578351
Dissolved Zinc (Zn)	ug/L	-	0.22	9578351	0.41	0.19	9578351	0.31	0.10	9578351
Dissolved Zirconium (Zr)	ug/L	-	0.53	9578351	0.63	0.58	9578351	0.68	0.10	9578351
Dissolved Calcium (Ca)	mg/L	-	30.3	9575526	16.4	25.8	9575526	17.3	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	5.03	9575526	4.57	7.93	9575526	3.69	0.050	9575526
Dissolved Potassium (K)	mg/L	-	1.94	9575526	0.958	1.21	9575526	0.784	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	3.00	9575526	2.46	2.70	9575526	1.65	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	14.7	9575526	7.6	14.2	9575526	7.4	3.0	9575526
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9310	WK9311		WK9312		
Sampling Date			2019/09/02 14:15	2019/09/02 11:20		2019/09/02 11:10		
COC Number			16814	16814		16814		
	UNITS	Criteria	ML-C (or YT-24-2)	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	RDL	QC Batch

Calculated Parameters

Filter and HNO3 Preservation	N/A	-	FIELD	FIELD	ONSITE	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	29.6	98.7	9575525	78.5	0.50	9575525

Elements

Dissolved Mercury (Hg)	ug/L	-	0.0053	0.0026	9582223	<0.0020	0.0020	9577999
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Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	ug/L	-	72.2	33.8	9578351	14.1	0.50	9578351
Dissolved Antimony (Sb)	ug/L	-	0.490	0.193	9578351	0.109 (1)	0.020	9586061
Dissolved Arsenic (As)	ug/L	-	0.850	0.406	9578351	0.376	0.020	9578351
Dissolved Barium (Ba)	ug/L	-	23.1	48.0	9578351	37.0	0.020	9578351
Dissolved Beryllium (Be)	ug/L	-	0.023	0.013	9578351	<0.010	0.010	9578351
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Boron (B)	ug/L	-	<10	<10	9578351	<10	10	9578351
Dissolved Cadmium (Cd)	ug/L	-	0.0052	<0.0050	9578351	0.0091	0.0050	9578351
Dissolved Chromium (Cr)	ug/L	20	0.40	0.26	9578351	0.19	0.10	9578351
Dissolved Cobalt (Co)	ug/L	-	0.0551	0.0471	9578351	0.0181	0.0050	9578351
Dissolved Copper (Cu)	ug/L	-	1.47	1.58	9578351	0.716	0.050	9578351
Dissolved Iron (Fe)	ug/L	-	40.6	19.1	9578351	10.8	1.0	9578351
Dissolved Lead (Pb)	ug/L	-	0.0072	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Lithium (Li)	ug/L	-	<0.50	<0.50	9578351	0.86	0.50	9578351
Dissolved Manganese (Mn)	ug/L	-	2.16	0.723	9578351	2.72	0.050	9578351
Dissolved Molybdenum (Mo)	ug/L	-	0.173	0.499	9578351	1.01	0.050	9578351
Dissolved Nickel (Ni)	ug/L	-	0.608	0.622	9578351	0.471	0.020	9578351
Dissolved Phosphorus (P)	ug/L	-	6.6	4.9	9578351	5.1	2.0	9578351
Dissolved Selenium (Se)	ug/L	-	0.052	0.069	9578351	0.171	0.040	9578351
Dissolved Silicon (Si)	ug/L	-	4180	3970	9578351	2670	50	9578351
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Strontium (Sr)	ug/L	-	29.8	180	9578351	123	0.050	9578351
Dissolved Thallium (Tl)	ug/L	-	0.0025	0.0025	9578351	0.0021	0.0020	9578351
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	9578351	<0.20	0.20	9578351

No Fill

No Exceedance

Grey

Exceeds 1 criteria policy/level

Black

Exceeds both criteria/levels

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9310	WK9311		WK9312		
Sampling Date			2019/09/02 14:15	2019/09/02 11:20		2019/09/02 11:10		
COC Number			16814	16814		16814		
	UNITS	Criteria	ML-C (or YT-24-2)	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	RDL	QC Batch
Dissolved Titanium (Ti)	ug/L	-	0.80	0.64	9578351	<0.50	0.50	9578351
Dissolved Uranium (U)	ug/L	-	0.258	2.39	9578351	1.49	0.0020	9578351
Dissolved Vanadium (V)	ug/L	-	0.36	0.24	9578351	0.23	0.20	9578351
Dissolved Zinc (Zn)	ug/L	-	0.34	0.25	9578351	0.35	0.10	9578351
Dissolved Zirconium (Zr)	ug/L	-	0.49	0.48	9578351	0.14	0.10	9578351
Dissolved Calcium (Ca)	mg/L	-	9.11	27.6	9575526	22.1	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	1.67	7.21	9575526	5.64	0.050	9575526
Dissolved Potassium (K)	mg/L	-	0.623	1.73	9575526	0.944	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	1.13	2.80	9575526	1.92	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	<3.0	14.2	9575526	8.3	3.0	9575526
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT**LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)**

BV Labs ID			WK9313		WK9314		WK9315		
Sampling Date			2019/09/02 16:25		2019/09/01 10:40		2019/09/02		
COC Number			16814		16814		16814		
	UNITS	Criteria	YUK-2.0	QC Batch	YUK-5.0	QC Batch	Sample A	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	-	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Dissolved Hardness (CaCO3)	mg/L	-	77.5	9575525	76.1	9575525	84.2	0.50	9575525
Elements									
Dissolved Mercury (Hg)	ug/L	-	<0.0020	9577999	<0.0020	9578032	<0.0020	0.0020	9577999
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	-	6.53	9578351	6.84	9578351	15.8	0.50	9578351
Dissolved Antimony (Sb)	ug/L	-	0.075	9578351	0.096	9578351	0.114	0.020	9586061
Dissolved Arsenic (As)	ug/L	-	0.389	9578351	0.384	9578351	0.395	0.020	9578351
Dissolved Barium (Ba)	ug/L	-	35.4	9578351	35.5	9578351	38.9	0.020	9578351
Dissolved Beryllium (Be)	ug/L	-	<0.010	9578351	<0.010	9578351	<0.010	0.010	9578351
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	9578351	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Boron (B)	ug/L	-	<10	9578351	<10	9578351	<10	10	9578351
Dissolved Cadmium (Cd)	ug/L	-	0.0115	9578351	0.0094	9578351	0.0099	0.0050	9578351
Dissolved Chromium (Cr)	ug/L	20	<0.10	9578351	0.11	9578351	0.15	0.10	9578351
Dissolved Cobalt (Co)	ug/L	-	0.0055	9578351	0.0060	9578351	0.0186	0.0050	9578351
Dissolved Copper (Cu)	ug/L	-	0.395	9578351	0.404	9578351	0.751	0.050	9578351
Dissolved Iron (Fe)	ug/L	-	3.9	9578351	4.6	9578351	10.6	1.0	9578351
Dissolved Lead (Pb)	ug/L	-	<0.0050	9578351	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Lithium (Li)	ug/L	-	1.18	9578351	1.12	9578351	0.92	0.50	9578351
Dissolved Manganese (Mn)	ug/L	-	0.729	9578351	1.28	9578351	2.63	0.050	9578351
Dissolved Molybdenum (Mo)	ug/L	-	1.23	9578351	1.27	9578351	1.01	0.050	9578351
Dissolved Nickel (Ni)	ug/L	-	0.467	9578351	0.426	9578351	0.481	0.020	9578351
Dissolved Phosphorus (P)	ug/L	-	2.7	9578351	2.8	9578351	3.6	2.0	9578351
Dissolved Selenium (Se)	ug/L	-	0.228	9578351	0.231	9578351	0.178	0.040	9578351
Dissolved Silicon (Si)	ug/L	-	2190	9578351	2280	9578351	2910	50	9578351
Dissolved Silver (Ag)	ug/L	-	<0.0050	9578351	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Strontium (Sr)	ug/L	-	109	9578351	109	9578351	130	0.050	9578351
Dissolved Thallium (Tl)	ug/L	-	<0.0020	9578351	<0.0020	9578351	<0.0020	0.0020	9578351
Dissolved Tin (Sn)	ug/L	-	<0.20	9578351	<0.20	9578351	<0.20	0.20	9578351
Dissolved Titanium (Ti)	ug/L	-	<0.50	9578351	<0.50	9578351	<0.50	0.50	9578351
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9313		WK9314		WK9315		
Sampling Date			2019/09/02 16:25		2019/09/01 10:40		2019/09/02		
COC Number			16814		16814		16814		
	UNITS	Criteria	YUK-2.0	QC Batch	YUK-5.0	QC Batch	Sample A	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	0.909	9578351	0.934	9578351	1.57	0.0020	9578351
Dissolved Vanadium (V)	ug/L	-	<0.20	9578351	<0.20	9578351	<0.20	0.20	9578351
Dissolved Zinc (Zn)	ug/L	-	0.30	9578351	0.36	9578351	0.25	0.10	9578351
Dissolved Zirconium (Zr)	ug/L	-	<0.10	9578351	<0.10	9578351	0.14	0.10	9578351
Dissolved Calcium (Ca)	mg/L	-	21.9	9575526	21.5	9575526	23.7	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	5.55	9575526	5.45	9575526	6.08	0.050	9575526
Dissolved Potassium (K)	mg/L	-	0.730	9575526	0.741	9575526	1.00	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	1.62	9575526	1.63	9575526	2.05	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	6.5	9575526	6.7	9575526	8.9	3.0	9575526
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit									



BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9316	WK9317		WK9318		
Sampling Date			2019/09/02	2019/09/03 03:10		2019/09/03		
COC Number			16814	16814		16814		
	UNITS	Criteria	Sample B	Field Blank	QC Batch	Trip Blank	RDL	QC Batch
Calculated Parameters								
Filter and HNO3 Preservation	N/A	-	FIELD	FIELD	ONSITE			
Dissolved Hardness (CaCO3)	mg/L	-	76.2	<0.50	9575525	<0.50	0.50	9575525
Elements								
Dissolved Mercury (Hg)	ug/L	-	0.0035	<0.0020	9578032	<0.0020	0.0020	9577999
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	-	51.1	<0.50	9578351	<0.50	0.50	9578351
Dissolved Antimony (Sb)	ug/L	-	0.113	<0.020	9578351	<0.020	0.020	9578351
Dissolved Arsenic (As)	ug/L	-	0.372	<0.020	9578351	<0.020	0.020	9578351
Dissolved Barium (Ba)	ug/L	-	42.4	<0.020	9578351	<0.020	0.020	9578351
Dissolved Beryllium (Be)	ug/L	-	<0.010	<0.010	9578351	<0.010	0.010	9578351
Dissolved Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Boron (B)	ug/L	-	<10	<10	9578351	<10	10	9578351
Dissolved Cadmium (Cd)	ug/L	-	0.0075	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Chromium (Cr)	ug/L	20	0.29	<0.10	9578351	<0.10	0.10	9578351
Dissolved Cobalt (Co)	ug/L	-	0.0383	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Copper (Cu)	ug/L	-	1.76	<0.050	9578351	<0.050	0.050	9578351
Dissolved Iron (Fe)	ug/L	-	33.6	<1.0	9578351	<1.0	1.0	9578351
Dissolved Lead (Pb)	ug/L	-	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Lithium (Li)	ug/L	-	0.65	<0.50	9578351	<0.50	0.50	9578351
Dissolved Manganese (Mn)	ug/L	-	4.17	<0.050	9578351	<0.050	0.050	9578351
Dissolved Molybdenum (Mo)	ug/L	-	0.619	<0.050	9578351	<0.050	0.050	9578351
Dissolved Nickel (Ni)	ug/L	-	0.730	<0.020	9578351	<0.020	0.020	9578351
Dissolved Phosphorus (P)	ug/L	-	3.7	<2.0	9578351	<2.0	2.0	9578351
Dissolved Selenium (Se)	ug/L	-	0.085	<0.040	9578351	<0.040	0.040	9578351
Dissolved Silicon (Si)	ug/L	-	5160	<50	9578351	<50	50	9578351
Dissolved Silver (Ag)	ug/L	-	<0.0050	<0.0050	9578351	<0.0050	0.0050	9578351
Dissolved Strontium (Sr)	ug/L	-	109	<0.050	9578351	<0.050	0.050	9578351
Dissolved Thallium (Tl)	ug/L	-	0.0027	<0.0020	9578351	<0.0020	0.0020	9578351
Dissolved Tin (Sn)	ug/L	-	<0.20	<0.20	9578351	<0.20	0.20	9578351
Dissolved Titanium (Ti)	ug/L	-	0.56	<0.50	9578351	<0.50	0.50	9578351
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

BV Labs ID			WK9316	WK9317		WK9318		
Sampling Date			2019/09/02	2019/09/03 03:10		2019/09/03		
COC Number			16814	16814		16814		
	UNITS	Criteria	Sample B	Field Blank	QC Batch	Trip Blank	RDL	QC Batch
Dissolved Uranium (U)	ug/L	-	2.64	<0.0020	9578351	<0.0020	0.0020	9578351
Dissolved Vanadium (V)	ug/L	-	0.32	<0.20	9578351	<0.20	0.20	9578351
Dissolved Zinc (Zn)	ug/L	-	0.24	<0.10	9578351	0.59	0.10	9578351
Dissolved Zirconium (Zr)	ug/L	-	0.41	<0.10	9578351	<0.10	0.10	9578351
Dissolved Calcium (Ca)	mg/L	-	19.8	<0.050	9575526	<0.050	0.050	9575526
Dissolved Magnesium (Mg)	mg/L	-	6.50	<0.050	9575526	<0.050	0.050	9575526
Dissolved Potassium (K)	mg/L	-	1.16	<0.050	9575526	<0.050	0.050	9575526
Dissolved Sodium (Na)	mg/L	-	3.06	0.076	9575526	<0.050	0.050	9575526
Dissolved Sulphur (S)	mg/L	-	12.2	<3.0	9575526	<3.0	3.0	9575526
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9286			WK9287	WK9288	WK9289		
Sampling Date			2019/09/03 09:45			2019/09/03 13:25	2019/09/03 13:50	2019/09/03 10:45		
COC Number			16814			16814	16814	16814		
	UNITS	Criteria	CC-0.5	RDL	QC Batch	CC-1.0	CC-1.5	CC-3.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	-	72.4	0.50	9575524	388	130	122	0.50	9575524
Elements										
Total Mercury (Hg)	ug/L	-	0.0032	0.0020	9577785	<0.0020	0.0039	0.0032	0.0020	9577796
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	78.4	3.0	9582438	15.5	76.0	64.7	0.50	9578885
Total Antimony (Sb)	ug/L	-	0.121	0.020	9582438	0.128	0.091	0.074	0.020	9578885
Total Arsenic (As)	ug/L	-	0.424	0.020	9582438	1.07	0.561	0.352	0.020	9578885
Total Barium (Ba)	ug/L	-	35.8	0.050	9582438	85.4	36.3	48.4	0.020	9578885
Total Beryllium (Be)	ug/L	-	0.014	0.010	9582438	<0.010	0.014	0.010	0.010	9578885
Total Bismuth (Bi)	ug/L	-	<0.010	0.010	9582438	<0.0050	<0.0050	<0.0050	0.0050	9578885
Total Boron (B)	ug/L	-	<10	10	9582438	<10	<10	<10	10	9578885
Total Cadmium (Cd)	ug/L	-	0.0083	0.0050	9582438	<0.0050	0.0050	0.0054	0.0050	9578885
Total Chromium (Cr)	ug/L	20	0.32	0.10	9582438	0.14	0.30	0.34	0.10	9578885
Total Cobalt (Co)	ug/L	-	0.059	0.010	9582438	0.0308	0.0400	0.0553	0.0050	9578885
Total Copper (Cu)	ug/L	-	2.11	0.10	9582438	0.640	1.26	1.25	0.050	9578885
Total Iron (Fe)	ug/L	-	74.7	5.0	9582438	16.1	51.9	63.1	1.0	9578885
Total Lead (Pb)	ug/L	-	<0.020	0.020	9582438	0.0066	0.0142	0.0215	0.0050	9578885
Total Lithium (Li)	ug/L	-	1.02	0.50	9582438	4.92	1.74	0.66	0.50	9578885
Total Manganese (Mn)	ug/L	-	7.80	0.10	9582438	1.36	4.31	2.48	0.050	9578885
Total Molybdenum (Mo)	ug/L	-	0.700	0.050	9582438	0.321	0.158	0.231	0.050	9578885
Total Nickel (Ni)	ug/L	-	0.95	0.10	9582438	0.417	0.479	0.534	0.020	9578885
Total Phosphorus (P)	ug/L	-	<5.0	5.0	9582438	3.2	4.5	4.7	2.0	9578885
Total Selenium (Se)	ug/L	-	0.095	0.040	9582438	0.332	0.092	0.079	0.040	9578885
Total Silicon (Si)	ug/L	-	5550	50	9582438	4890	5100	4650	50	9578885
Total Silver (Ag)	ug/L	-	<0.010	0.010	9582438	<0.0050	<0.0050	<0.0050	0.0050	9578885
Total Strontium (Sr)	ug/L	-	92.8	0.050	9582438	1070	299	251	0.050	9578885
Total Thallium (Tl)	ug/L	-	0.0045	0.0020	9582438	0.0036	0.0026	0.0026	0.0020	9578885
Total Tin (Sn)	ug/L	-	<0.20	0.20	9582438	<0.20	<0.20	<0.20	0.20	9578885
Total Titanium (Ti)	ug/L	-	<2.0	2.0	9582438	0.99	0.94	2.30	0.50	9578885
Total Uranium (U)	ug/L	-	3.93	0.0050	9582438	29.1	7.43	5.62	0.0020	9578885
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9286			WK9287	WK9288	WK9289		
Sampling Date			2019/09/03 09:45			2019/09/03 13:25	2019/09/03 13:50	2019/09/03 10:45		
COC Number			16814			16814	16814	16814		
	UNITS	Criteria	CC-0.5	RDL	QC Batch	CC-1.0	CC-1.5	CC-3.5	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.39	0.20	9582438	<0.20	0.29	0.44	0.20	9578885
Total Zinc (Zn)	ug/L	-	<1.0	1.0	9582438	0.13	0.37	0.33	0.10	9578885
Total Zirconium (Zr)	ug/L	-	0.42	0.10	9582438	<0.10	0.53	0.48	0.10	9578885
Total Calcium (Ca)	mg/L	-	18.3	0.25	9575527	98.6	34.5	33.0	0.050	9575527
Total Magnesium (Mg)	mg/L	-	6.49	0.25	9575527	34.5	10.7	9.64	0.050	9575527
Total Potassium (K)	mg/L	-	1.10	0.25	9575527	5.02	1.98	1.94	0.050	9575527
Total Sodium (Na)	mg/L	-	3.33	0.25	9575527	4.46	2.90	3.17	0.050	9575527
Total Sulphur (S)	mg/L	-	11.6	3.0	9575527	54.7	21.0	20.0	3.0	9575527
Total Sulphur (S)	ug/L	-	11600	600	9582438					
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT**LOW LEVEL TOTAL METALS WITH CV HG (WATER)**

BV Labs ID			WK9290	WK9291	WK9292	WK9293		WK9294		
Sampling Date			2019/09/03 08:15	2019/09/03 15:10	2019/09/03 14:50	2019/09/03 12:45		2019/09/02 17:15		
COC Number			16814	16814	16814	16814		16814		
	UNITS	Criteria	CC-4.5	CC-6.0	CC-A	CC-B	QC Batch	CC-X	RDL	QC Batch

Calculated Parameters										
Total Hardness (CaCO ₃)	mg/L	-	76.8	9.95	52.5	164	9575524	75.4	0.50	9575524
Elements										
Total Mercury (Hg)	ug/L	-	0.0028	0.0039	0.0052	0.0034	9577796	0.0027	0.0020	9577785
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	57.2	140	90.8	54.0	9578885	64.8	0.50	9578907
Total Antimony (Sb)	ug/L	-	0.087	0.046	0.083	0.091	9578885	0.092	0.020	9578907
Total Arsenic (As)	ug/L	-	0.367	0.479	0.438	0.516	9578885	0.360	0.020	9578907
Total Barium (Ba)	ug/L	-	43.0	10.1	19.7	43.4	9578885	42.9	0.020	9578907
Total Beryllium (Be)	ug/L	-	<0.010	0.017	0.018	<0.010	9578885	<0.010	0.010	9578907
Total Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	9578885	<0.0050	0.0050	9578907
Total Boron (B)	ug/L	-	<10	<10	<10	<10	9578885	<10	10	9578907
Total Cadmium (Cd)	ug/L	-	0.0072	0.0069	0.0065	0.0051	9578885	0.0062	0.0050	9578907
Total Chromium (Cr)	ug/L	20	0.31	0.46	0.40	0.28	9578885	0.31	0.10	9578907
Total Cobalt (Co)	ug/L	-	0.0487	0.110	0.0395	0.0408	9578885	0.0492	0.0050	9578907
Total Copper (Cu)	ug/L	-	2.02	1.23	1.44	1.27	9578885	1.87	0.050	9578907
Total Iron (Fe)	ug/L	-	44.2	214	61.2	34.5	9578885	44.3	1.0	9578907
Total Lead (Pb)	ug/L	-	0.0130	0.0201	0.0083	<0.0050	9578885	<0.0050	0.0050	9578907
Total Lithium (Li)	ug/L	-	0.75	<0.50	1.10	1.63	9578885	0.69	0.50	9578907
Total Manganese (Mn)	ug/L	-	5.34	32.4	4.98	6.66	9578885	4.79	0.050	9578907
Total Molybdenum (Mo)	ug/L	-	0.615	<0.050	0.101	0.274	9578885	0.619	0.050	9578907
Total Nickel (Ni)	ug/L	-	0.761	0.661	0.516	0.422	9578885	0.793	0.020	9578907
Total Phosphorus (P)	ug/L	-	2.2	6.5	4.6	3.0	9578885	3.2	2.0	9578907
Total Selenium (Se)	ug/L	-	0.079	0.044	0.045	0.086	9578885	0.085	0.040	9578907
Total Silicon (Si)	ug/L	-	4900	5340	5440	5450	9578885	4730	50	9578907
Total Silver (Ag)	ug/L	-	<0.0050	<0.0050	<0.0050	<0.0050	9578885	<0.0050	0.0050	9578907
Total Strontium (Sr)	ug/L	-	109	15.1	96.8	394	9578885	105	0.050	9578907
Total Thallium (Tl)	ug/L	-	0.0039	<0.0020	0.0028	0.0032	9578885	0.0042	0.0020	9578907
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	<0.20	9578885	<0.20	0.20	9578907
Total Titanium (Ti)	ug/L	-	0.78	1.54	0.88	<0.50	9578885	0.88	0.50	9578907
Total Uranium (U)	ug/L	-	2.91	0.376	2.09	10.5	9578885	2.73	0.0020	9578907

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9290	WK9291	WK9292	WK9293		WK9294		
Sampling Date			2019/09/03 08:15	2019/09/03 15:10	2019/09/03 14:50	2019/09/03 12:45		2019/09/02 17:15		
COC Number			16814	16814	16814	16814		16814		
	UNITS	Criteria	CC-4.5	CC-6.0	CC-A	CC-B	QC Batch	CC-X	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.65	2.01	0.97	<0.20	9578885	0.63	0.20	9578907
Total Zinc (Zn)	ug/L	-	0.42	0.52	0.30	0.18	9578885	0.21	0.10	9578907
Total Zirconium (Zr)	ug/L	-	0.42	0.71	0.67	0.48	9578885	0.41	0.10	9578907
Total Calcium (Ca)	mg/L	-	19.5	2.66	14.8	43.6	9575527	19.1	0.050	9575527
Total Magnesium (Mg)	mg/L	-	6.82	0.804	3.78	13.3	9575527	6.74	0.050	9575527
Total Potassium (K)	mg/L	-	1.18	0.087	0.766	2.84	9575527	1.17	0.050	9575527
Total Sodium (Na)	mg/L	-	3.18	0.939	2.06	3.17	9575527	3.19	0.050	9575527
Total Sulphur (S)	mg/L	-	12.3	<3.0	8.7	27.0	9575527	12.0	3.0	9575527
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9295			WK9296		WK9297		
Sampling Date			2019/09/02 16:50			2019/09/03 09:25		2019/09/02 15:40		
COC Number			16814			16814		16814		
	UNITS	Criteria	Coffee Mix	RDL	QC Batch	Latte Mix	QC Batch	HC-2.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	-	81.1	0.50	9575524	75.2	9575524	85.4	0.50	9575524
Elements										
Total Mercury (Hg)	ug/L	-	<0.0020	0.0020	9577785	0.0027	9577785	0.0034	0.0020	9577796
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	73.9	3.0	9582438	68.3	9578907	83.1	0.50	9578907
Total Antimony (Sb)	ug/L	-	0.112	0.020	9582438	0.090	9578907	0.341	0.020	9578907
Total Arsenic (As)	ug/L	-	0.404	0.020	9582438	0.401	9578907	1.08	0.020	9578907
Total Barium (Ba)	ug/L	-	43.7	0.050	9582438	37.6	9578907	34.1	0.020	9578907
Total Beryllium (Be)	ug/L	-	0.011	0.010	9582438	<0.010	9578907	0.012	0.010	9578907
Total Bismuth (Bi)	ug/L	-	<0.010	0.010	9582438	<0.0050	9578907	<0.0050	0.0050	9578907
Total Boron (B)	ug/L	-	<10	10	9582438	<10	9578907	<10	10	9578907
Total Cadmium (Cd)	ug/L	-	0.0131	0.0050	9582438	0.0075	9578907	0.0052	0.0050	9578907
Total Chromium (Cr)	ug/L	20	0.28	0.10	9582438	0.30	9578907	0.35	0.10	9578907
Total Cobalt (Co)	ug/L	-	0.067	0.010	9582438	0.0519	9578907	0.0530	0.0050	9578907
Total Copper (Cu)	ug/L	-	1.69	0.10	9582438	1.90	9578907	1.27	0.050	9578907
Total Iron (Fe)	ug/L	-	83.4	5.0	9582438	61.7	9578907	73.8	1.0	9578907
Total Lead (Pb)	ug/L	-	0.028	0.020	9582438	0.0053	9578907	0.0133	0.0050	9578907
Total Lithium (Li)	ug/L	-	0.84	0.50	9582438	0.91	9578907	1.17	0.50	9578907
Total Manganese (Mn)	ug/L	-	7.23	0.10	9582438	6.09	9578907	4.58	0.050	9578907
Total Molybdenum (Mo)	ug/L	-	0.814	0.050	9582438	0.648	9578907	1.21	0.050	9578907
Total Nickel (Ni)	ug/L	-	0.79	0.10	9582438	0.815	9578907	0.564	0.020	9578907
Total Phosphorus (P)	ug/L	-	8.1	5.0	9582438	3.5	9578907	5.9	2.0	9578907
Total Selenium (Se)	ug/L	-	0.130	0.040	9582438	0.084	9578907	0.074	0.040	9578907
Total Silicon (Si)	ug/L	-	4570	50	9582438	5000	9578907	5090	50	9578907
Total Silver (Ag)	ug/L	-	<0.010	0.010	9582438	<0.0050	9578907	<0.0050	0.0050	9578907
Total Strontium (Sr)	ug/L	-	110	0.050	9582438	106	9578907	256	0.050	9578907
Total Thallium (Tl)	ug/L	-	0.0041	0.0020	9582438	0.0048	9578907	0.0027	0.0020	9578907
Total Tin (Sn)	ug/L	-	<0.20	0.20	9582438	<0.20	9578907	<0.20	0.20	9578907
Total Titanium (Ti)	ug/L	-	2.0	2.0	9582438	1.02	9578907	1.50	0.50	9578907
Total Uranium (U)	ug/L	-	2.20	0.0050	9582438	4.14	9578907	24.4	0.0020	9578907
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9295			WK9296		WK9297		
Sampling Date			2019/09/02 16:50			2019/09/03 09:25		2019/09/02 15:40		
COC Number			16814			16814		16814		
	UNITS	Criteria	Coffee Mix	RDL	QC Batch	Latte Mix	QC Batch	HC-2.5	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.41	0.20	9582438	0.68	9578907	0.69	0.20	9578907
Total Zinc (Zn)	ug/L	-	<1.0	1.0	9582438	0.33	9578907	0.55	0.10	9578907
Total Zirconium (Zr)	ug/L	-	0.29	0.10	9582438	0.44	9578907	0.47	0.10	9578907
Total Calcium (Ca)	mg/L	-	21.2	0.25	9575527	19.3	9575527	21.7	0.050	9575527
Total Magnesium (Mg)	mg/L	-	6.80	0.25	9575527	6.58	9575527	7.58	0.050	9575527
Total Potassium (K)	mg/L	-	1.13	0.25	9575527	1.12	9575527	1.73	0.050	9575527
Total Sodium (Na)	mg/L	-	2.90	0.25	9575527	3.17	9575527	2.38	0.050	9575527
Total Sulphur (S)	mg/L	-	11.4	3.0	9575527	12.0	9575527	8.9	3.0	9575527
Total Sulphur (S)	ug/L	-	11400	600	9582438					
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9298	WK9299		WK9300	WK9301		
Sampling Date			2019/09/01 15:00	2019/09/01 15:50		2019/09/01 16:20	2019/09/02 15:05		
COC Number			16814	16814		16814	16814		
	UNITS	Criteria	HC-5.0	HC-A	QC Batch	HC-B	HC-C	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	94.1	94.6	9575524	92.2	88.9	0.50	9575524
Elements									
Total Mercury (Hg)	ug/L	-	0.0022	0.0024	9577785	0.0023	0.0031	0.0020	9577796
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	-	37.3	43.9	9578907	39.7	51.9	0.50	9578907
Total Antimony (Sb)	ug/L	-	0.193	0.195	9578907	0.266	0.315	0.020	9578907
Total Arsenic (As)	ug/L	-	0.606	0.612	9578907	0.762	0.810	0.020	9578907
Total Barium (Ba)	ug/L	-	40.5	39.9	9578907	34.2	32.9	0.020	9578907
Total Beryllium (Be)	ug/L	-	<0.010	0.011	9578907	<0.010	<0.010	0.010	9578907
Total Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	9578907	<0.0050	<0.0050	0.0050	9578907
Total Boron (B)	ug/L	-	<10	<10	9578907	<10	<10	10	9578907
Total Cadmium (Cd)	ug/L	-	<0.0050	<0.0050	9578907	<0.0050	<0.0050	0.0050	9578907
Total Chromium (Cr)	ug/L	20	0.26	0.30	9578907	0.27	0.29	0.10	9578907
Total Cobalt (Co)	ug/L	-	0.0428	0.0448	9578907	0.0402	0.0430	0.0050	9578907
Total Copper (Cu)	ug/L	-	1.46	1.42	9578907	1.18	1.17	0.050	9578907
Total Iron (Fe)	ug/L	-	24.7	33.4	9578907	24.3	33.9	1.0	9578907
Total Lead (Pb)	ug/L	-	<0.0050	0.0056	9578907	<0.0050	0.0055	0.0050	9578907
Total Lithium (Li)	ug/L	-	0.93	0.98	9578907	0.87	1.04	0.50	9578907
Total Manganese (Mn)	ug/L	-	0.747	1.19	9578907	1.52	1.59	0.050	9578907
Total Molybdenum (Mo)	ug/L	-	0.595	0.612	9578907	0.966	0.986	0.050	9578907
Total Nickel (Ni)	ug/L	-	0.627	0.614	9578907	0.511	0.482	0.020	9578907
Total Phosphorus (P)	ug/L	-	3.7	4.1	9578907	3.9	4.5	2.0	9578907
Total Selenium (Se)	ug/L	-	0.061	0.064	9578907	0.046	0.055	0.040	9578907
Total Silicon (Si)	ug/L	-	4480	4470	9578907	4670	4860	50	9578907
Total Silver (Ag)	ug/L	-	<0.0050	<0.0050	9578907	<0.0050	<0.0050	0.0050	9578907
Total Strontium (Sr)	ug/L	-	224	231	9578907	237	247	0.050	9578907
Total Thallium (Tl)	ug/L	-	0.0030	0.0026	9578907	0.0020	0.0021	0.0020	9578907
Total Tin (Sn)	ug/L	-	<0.20	<0.20	9578907	<0.20	<0.20	0.20	9578907
Total Titanium (Ti)	ug/L	-	0.53	0.93	9578907	0.63	0.84	0.50	9578907
Total Uranium (U)	ug/L	-	10.5	11.2	9578907	18.7	20.8	0.0020	9578907
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels								
Grey									
Black									
RDL = Reportable Detection Limit									



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID				WK9298	WK9299		WK9300	WK9301		
Sampling Date				2019/09/01 15:00	2019/09/01 15:50		2019/09/01 16:20	2019/09/02 15:05		
COC Number				16814	16814		16814	16814		
	UNITS	Criteria	HC-5.0	HC-A	QC Batch	HC-B	HC-C	RDL	QC Batch	
Total Vanadium (V)	ug/L	-	0.44	0.60	9578907	0.63	0.74	0.20	9578907	
Total Zinc (Zn)	ug/L	-	0.12	0.12	9578907	0.22	0.15	0.10	9578907	
Total Zirconium (Zr)	ug/L	-	0.38	0.37	9578907	0.34	0.37	0.10	9578907	
Total Calcium (Ca)	mg/L	-	24.8	25.0	9575527	23.4	22.5	0.050	9575527	
Total Magnesium (Mg)	mg/L	-	7.78	7.84	9575527	8.16	7.97	0.050	9575527	
Total Potassium (K)	mg/L	-	1.97	1.98	9575527	1.52	1.63	0.050	9575527	
Total Sodium (Na)	mg/L	-	2.84	2.89	9575527	2.71	2.55	0.050	9575527	
Total Sulphur (S)	mg/L	-	10.9	10.8	9575527	10.4	9.8	3.0	9575527	
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9302	WK9303	WK9304			WK9305		
Sampling Date			2019/09/01 14:50	2019/09/01 13:56	2019/09/01 13:25			2019/09/01 12:40		
COC Number			16814	16814	16814			16814		
	UNITS	Criteria	Halfway Mix	IC-0.5	IC-1.5	RDL	QC Batch	IC-2.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	-	94.7	71.5	47.7	0.50	9575524	17.9	0.50	9575524
Elements										
Total Mercury (Hg)	ug/L	-	<0.0020	0.0025	0.0034	0.0020	9577785	0.0033	0.0020	9577785
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	35.5	102	119	0.50	9578907	229	3.0	9582438
Total Antimony (Sb)	ug/L	-	0.190	0.077	0.090	0.020	9578907	0.154	0.020	9582438
Total Arsenic (As)	ug/L	-	0.551	0.511	0.264	0.020	9578907	1.26	0.020	9582438
Total Barium (Ba)	ug/L	-	40.3	25.1	26.6	0.020	9578907	15.1	0.050	9582438
Total Beryllium (Be)	ug/L	-	<0.010	0.017	0.013	0.010	9578907	0.028	0.010	9582438
Total Bismuth (Bi)	ug/L	-	<0.0050	<0.0050	<0.0050	0.0050	9578907	<0.010	0.010	9582438
Total Boron (B)	ug/L	-	<10	<10	<10	10	9578907	<10	10	9582438
Total Cadmium (Cd)	ug/L	-	<0.0050	0.0278	0.0061	0.0050	9578907	0.0081	0.0050	9582438
Total Chromium (Cr)	ug/L	20	0.27	0.48	0.39	0.10	9578907	0.71	0.10	9582438
Total Cobalt (Co)	ug/L	-	0.0436	0.115	0.0511	0.0050	9578907	0.125	0.010	9582438
Total Copper (Cu)	ug/L	-	1.45	2.74	1.57	0.050	9578907	1.93	0.10	9582438
Total Iron (Fe)	ug/L	-	25.0	82.9	87.2	1.0	9578907	485	5.0	9582438
Total Lead (Pb)	ug/L	-	<0.0050	0.0089	0.0251	0.0050	9578907	0.075	0.020	9582438
Total Lithium (Li)	ug/L	-	0.93	1.58	1.87	0.50	9578907	0.74	0.50	9582438
Total Manganese (Mn)	ug/L	-	0.606	7.92	2.00	0.050	9578907	6.75	0.10	9582438
Total Molybdenum (Mo)	ug/L	-	0.597	0.333	0.266	0.050	9578907	0.115	0.050	9582438
Total Nickel (Ni)	ug/L	-	0.650	2.03	0.673	0.020	9578907	1.00	0.10	9582438
Total Phosphorus (P)	ug/L	-	3.9	4.3	4.7	2.0	9578907	10.2	5.0	9582438
Total Selenium (Se)	ug/L	-	0.067	0.173	0.049	0.040	9578907	0.068	0.040	9582438
Total Silicon (Si)	ug/L	-	4520	5260	4950	50	9578907	6390	50	9582438
Total Silver (Ag)	ug/L	-	<0.0050	<0.0050	<0.0050	0.0050	9578907	<0.010	0.010	9582438
Total Strontium (Sr)	ug/L	-	221	60.5	77.0	0.050	9578907	22.3	0.050	9582438
Total Thallium (Tl)	ug/L	-	0.0025	0.0042	0.0035	0.0020	9578907	0.0023	0.0020	9582438
Total Tin (Sn)	ug/L	-	<0.20	<0.20	<0.20	0.20	9578907	<0.20	0.20	9582438
Total Titanium (Ti)	ug/L	-	<0.50	1.06	2.34	0.50	9578907	5.0	2.0	9582438
Total Uranium (U)	ug/L	-	10.3	1.05	1.49	0.0020	9578907	0.790	0.0050	9582438
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels									
Grey										
Black										
RDL = Reportable Detection Limit										



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9302	WK9303	WK9304			WK9305		
Sampling Date			2019/09/01 14:50	2019/09/01 13:56	2019/09/01 13:25			2019/09/01 12:40		
COC Number			16814	16814	16814			16814		
	UNITS	Criteria	Halfway Mix	IC-0.5	IC-1.5	RDL	QC Batch	IC-2.5	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.58	1.22	1.27	0.20	9578907	0.88	0.20	9582438
Total Zinc (Zn)	ug/L	-	0.15	1.88	0.40	0.10	9578907	<1.0	1.0	9582438
Total Zirconium (Zr)	ug/L	-	0.37	0.68	0.61	0.10	9578907	1.17	0.10	9582438
Total Calcium (Ca)	mg/L	-	25.0	17.9	13.0	0.050	9575527	4.84	0.25	9575527
Total Magnesium (Mg)	mg/L	-	7.83	6.51	3.70	0.050	9575527	1.40	0.25	9575527
Total Potassium (K)	mg/L	-	1.95	0.780	0.797	0.050	9575527	<0.25	0.25	9575527
Total Sodium (Na)	mg/L	-	2.85	2.26	2.51	0.050	9575527	1.32	0.25	9575527
Total Sulphur (S)	mg/L	-	10.8	12.5	3.8	3.0	9575527	<3.0	3.0	9575527
Total Sulphur (S)	ug/L	-						<600	600	9582438
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9306		WK9307	WK9308			WK9309		
Sampling Date			2019/09/01 11:40		2019/09/01 11:10	2019/09/02 13:20			2019/09/02 13:50		
COC Number			16814		16814	16814			16814		
	UNITS	Criteria	IC-3.0	QC Batch	IC-4.5	ML-A	RDL	QC Batch	ML-B	RDL	QC Batch

Calculated Parameters											
Total Hardness (CaCO ₃)	mg/L	-	91.5	9575524	60.1	96.9	0.50	9575524	61.5	0.50	9575524
Elements											
Total Mercury (Hg)	ug/L	-	0.0030	9577796	0.0030	0.0040	0.0020	9577785	0.0042	0.0020	9577785
Total Metals by ICPMS											
Total Aluminum (Al)	ug/L	-	45.1	9578907	74.1	53.1	0.50	9578907	184	3.0	9582438
Total Antimony (Sb)	ug/L	-	0.291	9578907	0.095	0.204	0.020	9578907	0.298	0.020	9582438
Total Arsenic (As)	ug/L	-	1.02	9578907	0.437	0.448	0.020	9578907	0.652	0.020	9582438
Total Barium (Ba)	ug/L	-	29.3	9578907	30.3	46.7	0.020	9578907	42.8	0.050	9582438
Total Beryllium (Be)	ug/L	-	0.016	9578907	0.019	0.017	0.010	9578907	0.032	0.010	9582438
Total Bismuth (Bi)	ug/L	-	<0.0050	9578907	<0.0050	<0.0050	0.0050	9578907	<0.010	0.010	9582438
Total Boron (B)	ug/L	-	<10	9578907	<10	<10	10	9578907	<10	10	9582438
Total Cadmium (Cd)	ug/L	-	<0.0050	9578907	0.0107	0.0061	0.0050	9578907	0.0146	0.0050	9582438
Total Chromium (Cr)	ug/L	20	0.28	9578907	0.38	0.33	0.10	9578907	0.52	0.10	9582438
Total Cobalt (Co)	ug/L	-	0.0561	9578907	0.0521	0.0625	0.0050	9578907	0.172	0.010	9582438
Total Copper (Cu)	ug/L	-	1.67	9578907	1.89	1.50	0.050	9578907	1.88	0.10	9582438
Total Iron (Fe)	ug/L	-	32.4	9578907	68.2	37.8	1.0	9578907	234	5.0	9582438
Total Lead (Pb)	ug/L	-	<0.0050	9578907	0.0090	0.0104	0.0050	9578907	0.148	0.020	9582438
Total Lithium (Li)	ug/L	-	<0.50	9578907	1.26	0.54	0.50	9578907	<0.50	0.50	9582438
Total Manganese (Mn)	ug/L	-	1.33	9578907	4.46	2.75	0.050	9578907	13.1	0.10	9582438
Total Molybdenum (Mo)	ug/L	-	0.435	9578907	0.251	0.533	0.050	9578907	0.373	0.050	9582438
Total Nickel (Ni)	ug/L	-	0.631	9578907	1.01	0.680	0.020	9578907	0.98	0.10	9582438
Total Phosphorus (P)	ug/L	-	3.1	9578907	3.6	7.3	2.0	9578907	10.2	5.0	9582438
Total Selenium (Se)	ug/L	-	0.059	9578907	0.083	0.053	0.040	9578907	0.054	0.040	9582438
Total Silicon (Si)	ug/L	-	4510	9578907	4910	3920	50	9578907	4690	50	9582438
Total Silver (Ag)	ug/L	-	<0.0050	9578907	<0.0050	<0.0050	0.0050	9578907	<0.010	0.010	9582438
Total Strontium (Sr)	ug/L	-	171	9578907	84.4	181	0.050	9578907	82.5	0.050	9582438
Total Thallium (Tl)	ug/L	-	0.0038	9578907	0.0032	0.0027	0.0020	9578907	0.0040	0.0020	9582438
Total Tin (Sn)	ug/L	-	<0.20	9578907	<0.20	<0.20	0.20	9578907	<0.20	0.20	9582438
Total Titanium (Ti)	ug/L	-	0.98	9578907	1.07	1.02	0.50	9578907	7.8	2.0	9582438
Total Uranium (U)	ug/L	-	4.75	9578907	1.08	5.13	0.0020	9578907	2.68	0.0050	9582438

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9306		WK9307	WK9308			WK9309		
Sampling Date			2019/09/01 11:40		2019/09/01 11:10	2019/09/02 13:20			2019/09/02 13:50		
COC Number			16814		16814	16814			16814		
	UNITS	Criteria	IC-3.0	QC Batch	IC-4.5	ML-A	RDL	QC Batch	ML-B	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.45	9578907	1.03	0.59	0.20	9578907	0.61	0.20	9582438
Total Zinc (Zn)	ug/L	-	0.14	9578907	0.50	0.24	0.10	9578907	<1.0	1.0	9582438
Total Zirconium (Zr)	ug/L	-	0.52	9578907	0.63	0.57	0.10	9578907	0.66	0.10	9582438
Total Calcium (Ca)	mg/L	-	28.4	9575527	16.2	25.2	0.050	9575527	18.0	0.25	9575527
Total Magnesium (Mg)	mg/L	-	5.02	9575527	4.76	8.23	0.050	9575527	4.00	0.25	9575527
Total Potassium (K)	mg/L	-	1.82	9575527	0.954	1.18	0.050	9575527	0.82	0.25	9575527
Total Sodium (Na)	mg/L	-	2.96	9575527	2.58	2.75	0.050	9575527	1.80	0.25	9575527
Total Sulphur (S)	mg/L	-	12.6	9575527	7.9	14.1	3.0	9575527	8.3	3.0	9575527
Total Sulphur (S)	ug/L	-							8340	600	9582438
No Fill	No Exceedance										
Grey	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels										
RDL = Reportable Detection Limit											

BUREAU
VERITASBV Labs Job #: B974329
Report Date: 2019/09/16Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9310			WK9311		WK9312		
Sampling Date			2019/09/02 14:15			2019/09/02 11:20		2019/09/02 11:10		
COC Number			16814			16814		16814		
	UNITS	Criteria	ML-C (or YT-24-2)	RDL	QC Batch	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	RDL	QC Batch

Calculated Parameters										
Total Hardness (CaCO ₃)	mg/L	-	31.4	0.50	9575524	96.8	9575524	78.4	0.50	9575524
Elements										
Total Mercury (Hg)	ug/L	-	0.0055	0.0020	9577785	0.0030	9577796	<0.0020	0.0020	9577785
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	-	172	3.0	9582438	40.7	9578907	62.9	0.50	9578907
Total Antimony (Sb)	ug/L	-	0.535	0.020	9582438	0.166	9578907	0.069	0.020	9578907
Total Arsenic (As)	ug/L	-	1.01	0.020	9582438	0.411	9578907	0.412	0.020	9578907
Total Barium (Ba)	ug/L	-	26.5	0.050	9582438	46.9	9578907	38.3	0.020	9578907
Total Beryllium (Be)	ug/L	-	0.026	0.010	9582438	0.015	9578907	<0.010	0.010	9578907
Total Bismuth (Bi)	ug/L	-	<0.010	0.010	9582438	<0.0050	9578907	<0.0050	0.0050	9578907
Total Boron (B)	ug/L	-	<10	10	9582438	<10	9578907	<10	10	9578907
Total Cadmium (Cd)	ug/L	-	0.0094	0.0050	9582438	<0.0050	9578907	0.0172	0.0050	9578907
Total Chromium (Cr)	ug/L	20	0.54	0.10	9582438	0.26	9578907	0.15	0.10	9578907
Total Cobalt (Co)	ug/L	-	0.122	0.010	9582438	0.0568	9578907	0.0427	0.0050	9578907
Total Copper (Cu)	ug/L	-	1.75	0.10	9582438	1.66	9578907	0.620	0.050	9578907
Total Iron (Fe)	ug/L	-	176	5.0	9582438	28.4	9578907	67.1	1.0	9578907
Total Lead (Pb)	ug/L	-	0.095	0.020	9582438	0.0074	9578907	0.0288	0.0050	9578907
Total Lithium (Li)	ug/L	-	<0.50	0.50	9582438	<0.50	9578907	1.20	0.50	9578907
Total Manganese (Mn)	ug/L	-	5.47	0.10	9582438	1.01	9578907	6.39	0.050	9578907
Total Molybdenum (Mo)	ug/L	-	0.164	0.050	9582438	0.490	9578907	1.17	0.050	9578907
Total Nickel (Ni)	ug/L	-	0.83	0.10	9582438	0.655	9578907	0.565	0.020	9578907
Total Phosphorus (P)	ug/L	-	10.1	5.0	9582438	4.5	9578907	4.4	2.0	9578907
Total Selenium (Se)	ug/L	-	0.056	0.040	9582438	0.071	9578907	0.215	0.040	9578907
Total Silicon (Si)	ug/L	-	4660	50	9582438	3790	9578907	2390	50	9578907
Total Silver (Ag)	ug/L	-	<0.010	0.010	9582438	<0.0050	9578907	<0.0050	0.0050	9578907
Total Strontium (Sr)	ug/L	-	30.1	0.050	9582438	177	9578907	113	0.050	9578907
Total Thallium (Tl)	ug/L	-	0.0041	0.0020	9582438	0.0028	9578907	0.0029	0.0020	9578907
Total Tin (Sn)	ug/L	-	<0.20	0.20	9582438	<0.20	9578907	<0.20	0.20	9578907
Total Titanium (Ti)	ug/L	-	6.1	2.0	9582438	0.92	9578907	1.21	0.50	9578907
Total Uranium (U)	ug/L	-	0.306	0.0050	9582438	2.42	9578907	1.34	0.0020	9578907

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9310			WK9311		WK9312		
Sampling Date			2019/09/02 14:15			2019/09/02 11:20		2019/09/02 11:10		
COC Number			16814			16814		16814		
	UNITS	Criteria	ML-C (or YT-24-2)	RDL	QC Batch	ML-1.0 (or YT-24-1)	QC Batch	YT-24 Mix	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.56	0.20	9582438	0.51	9578907	0.45	0.20	9578907
Total Zinc (Zn)	ug/L	-	<1.0	1.0	9582438	0.16	9578907	0.80	0.10	9578907
Total Zirconium (Zr)	ug/L	-	0.42	0.10	9582438	0.45	9578907	<0.10	0.10	9578907
Total Calcium (Ca)	mg/L	-	9.57	0.25	9575527	26.7	9575527	21.8	0.050	9575527
Total Magnesium (Mg)	mg/L	-	1.82	0.25	9575527	7.32	9575527	5.83	0.050	9575527
Total Potassium (K)	mg/L	-	0.64	0.25	9575527	1.67	9575527	0.794	0.050	9575527
Total Sodium (Na)	mg/L	-	1.22	0.25	9575527	2.89	9575527	1.83	0.050	9575527
Total Sulphur (S)	mg/L	-	<3.0	3.0	9575527	15.0	9575527	6.9	3.0	9575527
Total Sulphur (S)	ug/L	-	1280	600	9582438					
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



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BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9313	WK9314			WK9315		WK9316		
Sampling Date			2019/09/02 16:25	2019/09/01 10:40			2019/09/02		2019/09/02		
COC Number			16814	16814			16814		16814		
	UNITS	Criteria	YUK-2.0	YUK-5.0	RDL	QC Batch	Sample A	QC Batch	Sample B	RDL	QC Batch
Calculated Parameters											
Total Hardness (CaCO3)	mg/L	-	80.1	80.0	0.50	9575524	81.4	9575524	74.8	0.50	9575524
Elements											
Total Mercury (Hg)	ug/L	-	<0.0020	<0.0020	0.0020	9577796	<0.0020	9577796	0.0025	0.0020	9577785
Total Metals by ICPMS											
Total Aluminum (Al)	ug/L	-	109	75.6	3.0	9582438	43.8	9578907	59.0	0.50	9578907
Total Antimony (Sb)	ug/L	-	0.096	0.101	0.020	9582438	0.085	9578907	0.086	0.020	9578907
Total Arsenic (As)	ug/L	-	0.435	0.454	0.020	9582438	0.412	9578907	0.367	0.020	9578907
Total Barium (Ba)	ug/L	-	37.9	38.4	0.050	9582438	39.9	9578907	42.1	0.020	9578907
Total Beryllium (Be)	ug/L	-	<0.010	<0.010	0.010	9582438	<0.010	9578907	<0.010	0.010	9578907
Total Bismuth (Bi)	ug/L	-	<0.010	<0.010	0.010	9582438	<0.0050	9578907	<0.0050	0.0050	9578907
Total Boron (B)	ug/L	-	<10	<10	10	9582438	<10	9578907	<10	10	9578907
Total Cadmium (Cd)	ug/L	-	0.0231	0.0213	0.0050	9582438	0.0150	9578907	0.0070	0.0050	9578907
Total Chromium (Cr)	ug/L	20	0.24	0.19	0.10	9582438	0.19	9578907	0.30	0.10	9578907
Total Cobalt (Co)	ug/L	-	0.070	0.056	0.010	9582438	0.0456	9578907	0.0533	0.0050	9578907
Total Copper (Cu)	ug/L	-	0.64	0.62	0.10	9582438	0.784	9578907	1.86	0.050	9578907
Total Iron (Fe)	ug/L	-	159	118	5.0	9582438	61.8	9578907	44.4	1.0	9578907
Total Lead (Pb)	ug/L	-	0.061	0.059	0.020	9582438	0.0243	9578907	0.0051	0.0050	9578907
Total Lithium (Li)	ug/L	-	1.36	1.33	0.50	9582438	1.07	9578907	0.64	0.50	9578907
Total Manganese (Mn)	ug/L	-	6.87	6.85	0.10	9582438	5.68	9578907	4.82	0.050	9578907
Total Molybdenum (Mo)	ug/L	-	1.23	1.26	0.050	9582438	1.05	9578907	0.602	0.050	9578907
Total Nickel (Ni)	ug/L	-	0.74	0.69	0.10	9582438	0.555	9578907	0.764	0.020	9578907
Total Phosphorus (P)	ug/L	-	8.5	7.3	5.0	9582438	4.3	9578907	3.7	2.0	9578907
Total Selenium (Se)	ug/L	-	0.253	0.270	0.040	9582438	0.198	9578907	0.081	0.040	9578907
Total Silicon (Si)	ug/L	-	2510	2470	50	9582438	2610	9578907	4650	50	9578907
Total Silver (Ag)	ug/L	-	<0.010	<0.010	0.010	9582438	<0.0050	9578907	<0.0050	0.0050	9578907
Total Strontium (Sr)	ug/L	-	111	111	0.050	9582438	127	9578907	105	0.050	9578907
Total Thallium (Tl)	ug/L	-	0.0040	0.0044	0.0020	9582438	0.0023	9578907	0.0039	0.0020	9578907
Total Tin (Sn)	ug/L	-	<0.20	<0.20	0.20	9582438	<0.20	9578907	<0.20	0.20	9578907
Total Titanium (Ti)	ug/L	-	4.0	2.7	2.0	9582438	1.44	9578907	0.83	0.50	9578907
Total Uranium (U)	ug/L	-	0.924	0.995	0.0050	9582438	1.51	9578907	2.70	0.0020	9578907
No Fill	No Exceedance										
Grey	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels										
RDL = Reportable Detection Limit											



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9313	WK9314			WK9315		WK9316		
Sampling Date			2019/09/02 16:25	2019/09/01 10:40			2019/09/02		2019/09/02		
COC Number			16814	16814			16814		16814		
	UNITS	Criteria	YUK-2.0	YUK-5.0	RDL	QC Batch	Sample A	QC Batch	Sample B	RDL	QC Batch
Total Vanadium (V)	ug/L	-	0.53	0.41	0.20	9582438	0.41	9578907	0.56	0.20	9578907
Total Zinc (Zn)	ug/L	-	1.6	1.3	1.0	9582438	0.71	9578907	0.25	0.10	9578907
Total Zirconium (Zr)	ug/L	-	<0.10	<0.10	0.10	9582438	0.11	9578907	0.40	0.10	9578907
Total Calcium (Ca)	mg/L	-	22.4	22.5	0.25	9575527	22.6	9575527	19.1	0.050	9575527
Total Magnesium (Mg)	mg/L	-	5.85	5.77	0.25	9575527	6.05	9575527	6.57	0.050	9575527
Total Potassium (K)	mg/L	-	0.73	0.75	0.25	9575527	0.937	9575527	1.14	0.050	9575527
Total Sodium (Na)	mg/L	-	1.69	1.77	0.25	9575527	1.99	9575527	3.16	0.050	9575527
Total Sulphur (S)	mg/L	-	6.2	6.2	3.0	9575527	8.4	9575527	12.0	3.0	9575527
Total Sulphur (S)	ug/L	-	6200	6220	600	9582438					
No Fill	No Exceedance										
Grey	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels										
RDL = Reportable Detection Limit											



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VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9317		WK9318		
Sampling Date			2019/09/03 03:10		2019/09/03		
COC Number			16814		16814		
	UNITS	Criteria	Field Blank	QC Batch	Trip Blank	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	<0.50	9575524	<0.50	0.50	9575524
Elements							
Total Mercury (Hg)	ug/L	-	<0.0020	9577785	<0.0020	0.0020	9577796
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	-	<0.50	9578907	<0.50	0.50	9578907
Total Antimony (Sb)	ug/L	-	<0.020	9578907	<0.020	0.020	9578907
Total Arsenic (As)	ug/L	-	<0.020	9578907	<0.020	0.020	9578907
Total Barium (Ba)	ug/L	-	<0.020	9578907	<0.020	0.020	9578907
Total Beryllium (Be)	ug/L	-	<0.010	9578907	<0.010	0.010	9578907
Total Bismuth (Bi)	ug/L	-	<0.0050	9578907	<0.0050	0.0050	9578907
Total Boron (B)	ug/L	-	<10	9578907	<10	10	9578907
Total Cadmium (Cd)	ug/L	-	<0.0050	9578907	<0.0050	0.0050	9578907
Total Chromium (Cr)	ug/L	20	<0.10	9578907	<0.10	0.10	9578907
Total Cobalt (Co)	ug/L	-	<0.0050	9578907	<0.0050	0.0050	9578907
Total Copper (Cu)	ug/L	-	<0.050	9578907	<0.050	0.050	9578907
Total Iron (Fe)	ug/L	-	<1.0	9578907	<1.0	1.0	9578907
Total Lead (Pb)	ug/L	-	<0.0050	9578907	<0.0050	0.0050	9578907
Total Lithium (Li)	ug/L	-	<0.50	9578907	<0.50	0.50	9578907
Total Manganese (Mn)	ug/L	-	<0.050	9578907	<0.050	0.050	9578907
Total Molybdenum (Mo)	ug/L	-	<0.050	9578907	<0.050	0.050	9578907
Total Nickel (Ni)	ug/L	-	<0.020	9578907	<0.020	0.020	9578907
Total Phosphorus (P)	ug/L	-	<2.0	9578907	<2.0	2.0	9578907
Total Selenium (Se)	ug/L	-	<0.040	9578907	<0.040	0.040	9578907
Total Silicon (Si)	ug/L	-	<50	9578907	<50	50	9578907
Total Silver (Ag)	ug/L	-	<0.0050	9578907	<0.0050	0.0050	9578907
Total Strontium (Sr)	ug/L	-	<0.050	9578907	<0.050	0.050	9578907
Total Thallium (Tl)	ug/L	-	<0.0020	9578907	0.0020	0.0020	9578907
Total Tin (Sn)	ug/L	-	<0.20	9578907	<0.20	0.20	9578907
Total Titanium (Ti)	ug/L	-	<0.50	9578907	<0.50	0.50	9578907
Total Uranium (U)	ug/L	-	<0.0020	9578907	<0.0020	0.0020	9578907
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

BV Labs ID			WK9317		WK9318		
Sampling Date			2019/09/03 03:10		2019/09/03		
COC Number			16814		16814		
	UNITS	Criteria	Field Blank	QC Batch	Trip Blank	RDL	QC Batch
Total Vanadium (V)	ug/L	-	<0.20	9578907	<0.20	0.20	9578907
Total Zinc (Zn)	ug/L	-	<0.10	9578907	<0.10	0.10	9578907
Total Zirconium (Zr)	ug/L	-	<0.10	9578907	<0.10	0.10	9578907
Total Calcium (Ca)	mg/L	-	<0.050	9575527	<0.050	0.050	9575527
Total Magnesium (Mg)	mg/L	-	<0.050	9575527	<0.050	0.050	9575527
Total Potassium (K)	mg/L	-	<0.050	9575527	<0.050	0.050	9575527
Total Sodium (Na)	mg/L	-	<0.050	9575527	<0.050	0.050	9575527
Total Sulphur (S)	mg/L	-	<3.0	9575527	<3.0	3.0	9575527
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							



GENERAL COMMENTS

Sample WK9294 [CC-X] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9295 [Coffee Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9297 [HC-2.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9298 [HC-5.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Total Suspended Solids (NFR). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9299 [HC-A] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Sample was analyzed past method specified hold time for Total Suspended Solids (NFR).

Sample WK9300 [HC-B] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9301 [HC-C] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9302 [Halfway Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9303 [IC-0.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9304 [IC-1.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9305 [IC-2.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9306 [IC-3.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9307 [IC-4.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.



Sample WK9308 [ML-A] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9309 [ML-B] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9310 [ML-C (or YT-24-2)] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9311 [ML-1.0 (or YT-24-1)] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9312 [YT-24 Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9313 [YUK-2.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9314 [YUK-5.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9315 [Sample A] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Sample WK9316 [Sample B] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Orthophosphate by Konelab.

Criteria: Gordcorp Discharge Permit - Water License Compliance Targets for Discharge from WWTP to Lagoon #3

Sample WK9291, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample WK9293, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample WK9300, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample WK9312, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample WK9315, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9577785	CJY	Matrix Spike [WK9286-05]	Total Mercury (Hg)	2019/09/06		90	%	80 - 120
9577785	CJY	Spiked Blank	Total Mercury (Hg)	2019/09/06		106	%	80 - 120
9577785	CJY	Method Blank	Total Mercury (Hg)	2019/09/06	<0.0020		ug/L	
9577785	CJY	RPD [WK9286-05]	Total Mercury (Hg)	2019/09/06	12		%	20
9577796	CJY	Matrix Spike [WK9318-05]	Total Mercury (Hg)	2019/09/06		113	%	80 - 120
9577796	CJY	Spiked Blank	Total Mercury (Hg)	2019/09/06		106	%	80 - 120
9577796	CJY	Method Blank	Total Mercury (Hg)	2019/09/06	<0.0020		ug/L	
9577796	CJY	RPD [WK9318-05]	Total Mercury (Hg)	2019/09/06	NC		%	20
9577999	CJY	Matrix Spike [WK9286-07]	Dissolved Mercury (Hg)	2019/09/06		93	%	80 - 120
9577999	CJY	Spiked Blank	Dissolved Mercury (Hg)	2019/09/06		102	%	80 - 120
9577999	CJY	Method Blank	Dissolved Mercury (Hg)	2019/09/06	<0.0020		ug/L	
9577999	CJY	RPD [WK9286-07]	Dissolved Mercury (Hg)	2019/09/06	NC		%	20
9578032	CJY	Matrix Spike	Dissolved Mercury (Hg)	2019/09/06		80	%	80 - 120
9578032	CJY	Spiked Blank	Dissolved Mercury (Hg)	2019/09/06		108	%	80 - 120
9578032	CJY	Method Blank	Dissolved Mercury (Hg)	2019/09/06	<0.0020		ug/L	
9578032	CJY	RPD	Dissolved Mercury (Hg)	2019/09/06	NC		%	20
9578280	CGP	Matrix Spike [WK9286-02]	Alkalinity (Total as CaCO ₃)	2019/09/06		106	%	80 - 120
9578280	CGP	Spiked Blank	Alkalinity (Total as CaCO ₃)	2019/09/06		102	%	80 - 120
9578280	CGP	Method Blank	Alkalinity (Total as CaCO ₃)	2019/09/06	<0.50		mg/L	
			Alkalinity (PP as CaCO ₃)	2019/09/06	<0.50		mg/L	
			Bicarbonate (HCO ₃)	2019/09/06	<0.50		mg/L	
			Carbonate (CO ₃)	2019/09/06	<0.50		mg/L	
			Hydroxide (OH)	2019/09/06	<0.50		mg/L	
9578287	CGP	Spiked Blank	Conductivity	2019/09/06		100	%	80 - 120
9578287	CGP	Method Blank	Conductivity	2019/09/06	<1.0		uS/cm	
9578291	CGP	Spiked Blank	pH	2019/09/06		101	%	97 - 103
9578291	CGP	RPD	pH	2019/09/06	0		%	N/A
9578296	CGP	Matrix Spike [WK9309-02]	Alkalinity (Total as CaCO ₃)	2019/09/06		100	%	80 - 120
9578296	CGP	Spiked Blank	Alkalinity (Total as CaCO ₃)	2019/09/06		103	%	80 - 120
9578296	CGP	Method Blank	Alkalinity (Total as CaCO ₃)	2019/09/06	<0.50		mg/L	
			Alkalinity (PP as CaCO ₃)	2019/09/06	<0.50		mg/L	
			Bicarbonate (HCO ₃)	2019/09/06	<0.50		mg/L	
			Carbonate (CO ₃)	2019/09/06	<0.50		mg/L	
			Hydroxide (OH)	2019/09/06	<0.50		mg/L	
9578296	CGP	RPD [WK9309-02]	Alkalinity (Total as CaCO ₃)	2019/09/06	0.25		%	20
			Alkalinity (PP as CaCO ₃)	2019/09/06	NC		%	20
			Bicarbonate (HCO ₃)	2019/09/06	0.25		%	20
			Carbonate (CO ₃)	2019/09/06	NC		%	20
			Hydroxide (OH)	2019/09/06	NC		%	20
9578299	CGP	Spiked Blank	Conductivity	2019/09/06		99	%	80 - 120
9578299	CGP	Method Blank	Conductivity	2019/09/06	<1.0		uS/cm	
9578299	CGP	RPD [WK9309-02]	Conductivity	2019/09/06	0.29		%	20
9578300	CGP	Spiked Blank	pH	2019/09/06		102	%	97 - 103
9578300	CGP	RPD [WK9309-02]	pH	2019/09/06	0.41		%	N/A
9578342	AA1	Matrix Spike [WK9293-06]	Dissolved Aluminum (Al)	2019/09/07		100	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/07		100	%	80 - 120



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578342	AA1	Spiked Blank	Dissolved Arsenic (As)	2019/09/07		106	%	80 - 120
			Dissolved Barium (Ba)	2019/09/07		101	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/07		96	%	80 - 120
			Dissolved Bismuth (Bi)	2019/09/07		90	%	80 - 120
			Dissolved Boron (B)	2019/09/07		89	%	80 - 120
			Dissolved Cadmium (Cd)	2019/09/07		97	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/07		92	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/07		90	%	80 - 120
			Dissolved Copper (Cu)	2019/09/07		88	%	80 - 120
			Dissolved Iron (Fe)	2019/09/07		96	%	80 - 120
			Dissolved Lead (Pb)	2019/09/07		100	%	80 - 120
			Dissolved Lithium (Li)	2019/09/07		96	%	80 - 120
			Dissolved Manganese (Mn)	2019/09/07		94	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/07		98	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/07		89	%	80 - 120
			Dissolved Phosphorus (P)	2019/09/07		108	%	80 - 120
			Dissolved Selenium (Se)	2019/09/07		101	%	80 - 120
			Dissolved Silicon (Si)	2019/09/07		106	%	80 - 120
			Dissolved Silver (Ag)	2019/09/07		70 (1)	%	80 - 120
			Dissolved Strontium (Sr)	2019/09/07		NC	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/07		99	%	80 - 120
			Dissolved Tin (Sn)	2019/09/07		97	%	80 - 120
			Dissolved Titanium (Ti)	2019/09/07		96	%	80 - 120
			Dissolved Uranium (U)	2019/09/07		101	%	80 - 120
			Dissolved Vanadium (V)	2019/09/07		95	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/07		97	%	80 - 120
			Dissolved Zirconium (Zr)	2019/09/07		104	%	80 - 120
			Dissolved Aluminum (Al)	2019/09/07		103	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/07		102	%	80 - 120
			Dissolved Arsenic (As)	2019/09/07		105	%	80 - 120
			Dissolved Barium (Ba)	2019/09/07		103	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/07		99	%	80 - 120
			Dissolved Bismuth (Bi)	2019/09/07		106	%	80 - 120
			Dissolved Boron (B)	2019/09/07		91	%	80 - 120
			Dissolved Cadmium (Cd)	2019/09/07		99	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/07		98	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/07		97	%	80 - 120
			Dissolved Copper (Cu)	2019/09/07		97	%	80 - 120
			Dissolved Iron (Fe)	2019/09/07		103	%	80 - 120
			Dissolved Lead (Pb)	2019/09/07		106	%	80 - 120
			Dissolved Lithium (Li)	2019/09/07		101	%	80 - 120
			Dissolved Manganese (Mn)	2019/09/07		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/07		100	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/07		99	%	80 - 120
			Dissolved Phosphorus (P)	2019/09/07		97	%	80 - 120
			Dissolved Selenium (Se)	2019/09/07		100	%	80 - 120
			Dissolved Silicon (Si)	2019/09/07		97	%	80 - 120
			Dissolved Silver (Ag)	2019/09/07		98	%	80 - 120
			Dissolved Strontium (Sr)	2019/09/07		102	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/07		104	%	80 - 120
			Dissolved Tin (Sn)	2019/09/07		100	%	80 - 120
			Dissolved Titanium (Ti)	2019/09/07		100	%	80 - 120



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578342	AA1	Method Blank	Dissolved Uranium (U)	2019/09/07		105	%	80 - 120
			Dissolved Vanadium (V)	2019/09/07		99	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/07		102	%	80 - 120
			Dissolved Zirconium (Zr)	2019/09/07		104	%	80 - 120
			Dissolved Aluminum (Al)	2019/09/07	<0.50		ug/L	
			Dissolved Antimony (Sb)	2019/09/07	<0.020		ug/L	
			Dissolved Arsenic (As)	2019/09/07	<0.020		ug/L	
			Dissolved Barium (Ba)	2019/09/07	<0.020		ug/L	
			Dissolved Beryllium (Be)	2019/09/07	<0.010		ug/L	
			Dissolved Bismuth (Bi)	2019/09/07	<0.0050		ug/L	
			Dissolved Boron (B)	2019/09/07	<10		ug/L	
			Dissolved Cadmium (Cd)	2019/09/07	<0.0050		ug/L	
			Dissolved Chromium (Cr)	2019/09/07	<0.10		ug/L	
			Dissolved Cobalt (Co)	2019/09/07	<0.0050		ug/L	
			Dissolved Copper (Cu)	2019/09/07	<0.050		ug/L	
			Dissolved Iron (Fe)	2019/09/07	<1.0		ug/L	
			Dissolved Lead (Pb)	2019/09/07	<0.0050		ug/L	
			Dissolved Lithium (Li)	2019/09/07	<0.50		ug/L	
			Dissolved Manganese (Mn)	2019/09/07	<0.050		ug/L	
			Dissolved Molybdenum (Mo)	2019/09/07	<0.050		ug/L	
			Dissolved Nickel (Ni)	2019/09/07	<0.020		ug/L	
			Dissolved Phosphorus (P)	2019/09/07	<2.0		ug/L	
			Dissolved Selenium (Se)	2019/09/07	<0.040		ug/L	
			Dissolved Silicon (Si)	2019/09/07	<50		ug/L	
			Dissolved Silver (Ag)	2019/09/07	<0.0050		ug/L	
			Dissolved Strontium (Sr)	2019/09/07	<0.050		ug/L	
			Dissolved Thallium (Tl)	2019/09/07	<0.0020		ug/L	
			Dissolved Tin (Sn)	2019/09/07	<0.20		ug/L	
			Dissolved Titanium (Ti)	2019/09/07	<0.50		ug/L	
			Dissolved Uranium (U)	2019/09/07	<0.0020		ug/L	
			Dissolved Vanadium (V)	2019/09/07	<0.20		ug/L	
			Dissolved Zinc (Zn)	2019/09/07	<0.10		ug/L	
			Dissolved Zirconium (Zr)	2019/09/07	<0.10		ug/L	
9578342	AA1	RPD [WK9293-06]	Dissolved Aluminum (Al)	2019/09/07	1.5		%	20
			Dissolved Antimony (Sb)	2019/09/07	0.35		%	20
			Dissolved Arsenic (As)	2019/09/07	6.5		%	20
			Dissolved Barium (Ba)	2019/09/07	0.76		%	20
			Dissolved Beryllium (Be)	2019/09/07	13		%	20
			Dissolved Bismuth (Bi)	2019/09/07	NC		%	20
			Dissolved Boron (B)	2019/09/07	NC		%	20
			Dissolved Cadmium (Cd)	2019/09/07	NC		%	20
			Dissolved Chromium (Cr)	2019/09/07	1.1		%	20
			Dissolved Cobalt (Co)	2019/09/07	8.3		%	20
			Dissolved Copper (Cu)	2019/09/07	0.44		%	20
			Dissolved Iron (Fe)	2019/09/07	0.019		%	20
			Dissolved Lead (Pb)	2019/09/07	NC		%	20
			Dissolved Lithium (Li)	2019/09/07	4.7		%	20
			Dissolved Manganese (Mn)	2019/09/07	0.21		%	20
			Dissolved Molybdenum (Mo)	2019/09/07	3.4		%	20
			Dissolved Nickel (Ni)	2019/09/07	8.7		%	20
			Dissolved Phosphorus (P)	2019/09/07	11		%	20
			Dissolved Selenium (Se)	2019/09/07	11		%	20



BUREAU
VERITAS

BV Labs Job #: B974329
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Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578351	AA1	Matrix Spike [WK9315-06]	Dissolved Silicon (Si)	2019/09/07	3.7		%	20
			Dissolved Silver (Ag)	2019/09/07	NC		%	20
			Dissolved Strontium (Sr)	2019/09/07	2.8		%	20
			Dissolved Thallium (Tl)	2019/09/07	7.4		%	20
			Dissolved Tin (Sn)	2019/09/07	NC		%	20
			Dissolved Titanium (Ti)	2019/09/07	10		%	20
			Dissolved Uranium (U)	2019/09/07	0.026		%	20
			Dissolved Vanadium (V)	2019/09/07	0.13		%	20
			Dissolved Zirconium (Zr)	2019/09/07	1.9		%	20
			Dissolved Aluminum (Al)	2019/09/07		92	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/07		94	%	80 - 120
			Dissolved Arsenic (As)	2019/09/07		98	%	80 - 120
			Dissolved Barium (Ba)	2019/09/07		95	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/07		90	%	80 - 120
			Dissolved Bismuth (Bi)	2019/09/07		95	%	80 - 120
			Dissolved Boron (B)	2019/09/07		86	%	80 - 120
			Dissolved Cadmium (Cd)	2019/09/07		92	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/07		89	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/07		87	%	80 - 120
			Dissolved Copper (Cu)	2019/09/07		86	%	80 - 120
			Dissolved Iron (Fe)	2019/09/07		94	%	80 - 120
			Dissolved Lead (Pb)	2019/09/07		99	%	80 - 120
			Dissolved Lithium (Li)	2019/09/07		94	%	80 - 120
			Dissolved Manganese (Mn)	2019/09/07		90	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/07		97	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/07		88	%	80 - 120
			Dissolved Phosphorus (P)	2019/09/07		96	%	80 - 120
			Dissolved Selenium (Se)	2019/09/07		96	%	80 - 120
			Dissolved Silicon (Si)	2019/09/07		91	%	80 - 120
			Dissolved Silver (Ag)	2019/09/07		91	%	80 - 120
			Dissolved Strontium (Sr)	2019/09/07		NC	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/07		96	%	80 - 120
			Dissolved Tin (Sn)	2019/09/07		92	%	80 - 120
			Dissolved Titanium (Ti)	2019/09/07		92	%	80 - 120
			Dissolved Uranium (U)	2019/09/07		99	%	80 - 120
			Dissolved Vanadium (V)	2019/09/07		91	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/07		91	%	80 - 120
9578351	AA1	Spiked Blank	Dissolved Zirconium (Zr)	2019/09/07		97	%	80 - 120
			Dissolved Aluminum (Al)	2019/09/07		104	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/07		103	%	80 - 120
			Dissolved Arsenic (As)	2019/09/07		104	%	80 - 120
			Dissolved Barium (Ba)	2019/09/07		104	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/07		100	%	80 - 120
			Dissolved Bismuth (Bi)	2019/09/07		106	%	80 - 120
			Dissolved Boron (B)	2019/09/07		91	%	80 - 120
			Dissolved Cadmium (Cd)	2019/09/07		101	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/07		99	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/07		99	%	80 - 120
			Dissolved Copper (Cu)	2019/09/07		97	%	80 - 120
			Dissolved Iron (Fe)	2019/09/07		103	%	80 - 120
			Dissolved Lead (Pb)	2019/09/07		106	%	80 - 120



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578351	AA1	Method Blank	Dissolved Lithium (Li)	2019/09/07		101	%	80 - 120
			Dissolved Manganese (Mn)	2019/09/07		101	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/07		101	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/07		101	%	80 - 120
			Dissolved Phosphorus (P)	2019/09/07		97	%	80 - 120
			Dissolved Selenium (Se)	2019/09/07		101	%	80 - 120
			Dissolved Silicon (Si)	2019/09/07		99	%	80 - 120
			Dissolved Silver (Ag)	2019/09/07		99	%	80 - 120
			Dissolved Strontium (Sr)	2019/09/07		102	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/07		105	%	80 - 120
			Dissolved Tin (Sn)	2019/09/07		102	%	80 - 120
			Dissolved Titanium (Ti)	2019/09/07		100	%	80 - 120
			Dissolved Uranium (U)	2019/09/07		107	%	80 - 120
			Dissolved Vanadium (V)	2019/09/07		101	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/07		103	%	80 - 120
			Dissolved Zirconium (Zr)	2019/09/07		102	%	80 - 120
			Dissolved Aluminum (Al)	2019/09/07	<0.50		ug/L	
			Dissolved Antimony (Sb)	2019/09/07	<0.020		ug/L	
			Dissolved Arsenic (As)	2019/09/07	<0.020		ug/L	
			Dissolved Barium (Ba)	2019/09/07	<0.020		ug/L	
			Dissolved Beryllium (Be)	2019/09/07	<0.010		ug/L	
			Dissolved Bismuth (Bi)	2019/09/07	<0.0050		ug/L	
			Dissolved Boron (B)	2019/09/07	<10		ug/L	
			Dissolved Cadmium (Cd)	2019/09/07	<0.0050		ug/L	
			Dissolved Chromium (Cr)	2019/09/07	<0.10		ug/L	
			Dissolved Cobalt (Co)	2019/09/07	<0.0050		ug/L	
			Dissolved Copper (Cu)	2019/09/07	<0.050		ug/L	
			Dissolved Iron (Fe)	2019/09/07	<1.0		ug/L	
			Dissolved Lead (Pb)	2019/09/07	<0.0050		ug/L	
			Dissolved Lithium (Li)	2019/09/07	<0.50		ug/L	
			Dissolved Manganese (Mn)	2019/09/07	<0.050		ug/L	
			Dissolved Molybdenum (Mo)	2019/09/07	<0.050		ug/L	
			Dissolved Nickel (Ni)	2019/09/07	<0.020		ug/L	
			Dissolved Phosphorus (P)	2019/09/07	<2.0		ug/L	
			Dissolved Selenium (Se)	2019/09/07	<0.040		ug/L	
			Dissolved Silicon (Si)	2019/09/07	<50		ug/L	
			Dissolved Silver (Ag)	2019/09/07	<0.0050		ug/L	
			Dissolved Strontium (Sr)	2019/09/07	<0.050		ug/L	
			Dissolved Thallium (Tl)	2019/09/07	<0.0020		ug/L	
			Dissolved Tin (Sn)	2019/09/07	<0.20		ug/L	
			Dissolved Titanium (Ti)	2019/09/07	<0.50		ug/L	
			Dissolved Uranium (U)	2019/09/07	<0.0020		ug/L	
			Dissolved Vanadium (V)	2019/09/07	<0.20		ug/L	
			Dissolved Zinc (Zn)	2019/09/07	<0.10		ug/L	
			Dissolved Zirconium (Zr)	2019/09/07	<0.10		ug/L	
9578351	AA1	RPD [WK9315-06]	Dissolved Aluminum (Al)	2019/09/07	5.9		%	20
			Dissolved Arsenic (As)	2019/09/07	3.8		%	20
			Dissolved Barium (Ba)	2019/09/07	0.094		%	20
			Dissolved Beryllium (Be)	2019/09/07	NC		%	20
			Dissolved Bismuth (Bi)	2019/09/07	NC		%	20
			Dissolved Boron (B)	2019/09/07	NC		%	20
			Dissolved Cadmium (Cd)	2019/09/07	0		%	20



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578351	AA1	RPD [WK9317-06]	Dissolved Chromium (Cr)	2019/09/07	4.4		%	20
			Dissolved Cobalt (Co)	2019/09/07	11		%	20
			Dissolved Copper (Cu)	2019/09/07	1.7		%	20
			Dissolved Iron (Fe)	2019/09/07	0.54		%	20
			Dissolved Lead (Pb)	2019/09/07	NC		%	20
			Dissolved Lithium (Li)	2019/09/07	0.59		%	20
			Dissolved Manganese (Mn)	2019/09/07	1.3		%	20
			Dissolved Molybdenum (Mo)	2019/09/07	4.1		%	20
			Dissolved Nickel (Ni)	2019/09/07	5.0		%	20
			Dissolved Phosphorus (P)	2019/09/07	7.5		%	20
			Dissolved Selenium (Se)	2019/09/07	1.7		%	20
			Dissolved Silicon (Si)	2019/09/07	0.067		%	20
			Dissolved Silver (Ag)	2019/09/07	NC		%	20
			Dissolved Strontium (Sr)	2019/09/07	1.0		%	20
			Dissolved Thallium (Tl)	2019/09/07	NC		%	20
			Dissolved Tin (Sn)	2019/09/07	NC		%	20
			Dissolved Titanium (Ti)	2019/09/07	NC		%	20
			Dissolved Uranium (U)	2019/09/07	0.13		%	20
			Dissolved Vanadium (V)	2019/09/07	NC		%	20
			Dissolved Zinc (Zn)	2019/09/07	0.95		%	20
			Dissolved Zirconium (Zr)	2019/09/07	4.9		%	20
			Dissolved Aluminum (Al)	2019/09/07	NC		%	20
			Dissolved Antimony (Sb)	2019/09/07	NC		%	20
			Dissolved Arsenic (As)	2019/09/07	NC		%	20
			Dissolved Barium (Ba)	2019/09/07	NC		%	20
			Dissolved Beryllium (Be)	2019/09/07	NC		%	20
			Dissolved Bismuth (Bi)	2019/09/07	NC		%	20
			Dissolved Boron (B)	2019/09/07	NC		%	20
			Dissolved Cadmium (Cd)	2019/09/07	NC		%	20
			Dissolved Chromium (Cr)	2019/09/07	NC		%	20
			Dissolved Cobalt (Co)	2019/09/07	NC		%	20
			Dissolved Copper (Cu)	2019/09/07	NC		%	20
			Dissolved Iron (Fe)	2019/09/07	NC		%	20
			Dissolved Lead (Pb)	2019/09/07	NC		%	20
			Dissolved Lithium (Li)	2019/09/07	NC		%	20
			Dissolved Manganese (Mn)	2019/09/07	NC		%	20
			Dissolved Molybdenum (Mo)	2019/09/07	NC		%	20
			Dissolved Nickel (Ni)	2019/09/07	NC		%	20
			Dissolved Phosphorus (P)	2019/09/07	NC		%	20
			Dissolved Selenium (Se)	2019/09/07	NC		%	20
			Dissolved Silicon (Si)	2019/09/07	NC		%	20
			Dissolved Silver (Ag)	2019/09/07	NC		%	20
			Dissolved Strontium (Sr)	2019/09/07	NC		%	20
			Dissolved Thallium (Tl)	2019/09/07	NC		%	20
			Dissolved Tin (Sn)	2019/09/07	NC		%	20
			Dissolved Titanium (Ti)	2019/09/07	NC		%	20
			Dissolved Uranium (U)	2019/09/07	NC		%	20
			Dissolved Vanadium (V)	2019/09/07	NC		%	20
			Dissolved Zinc (Zn)	2019/09/07	NC		%	20
			Dissolved Zirconium (Zr)	2019/09/07	NC		%	20
9578351	AA1	RPD [WK9318-06]	Dissolved Aluminum (Al)	2019/09/07	NC		%	20
			Dissolved Antimony (Sb)	2019/09/07	NC		%	20



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Arsenic (As)	2019/09/07	NC		%	20
			Dissolved Barium (Ba)	2019/09/07	NC		%	20
			Dissolved Beryllium (Be)	2019/09/07	NC		%	20
			Dissolved Bismuth (Bi)	2019/09/07	NC		%	20
			Dissolved Boron (B)	2019/09/07	NC		%	20
			Dissolved Cadmium (Cd)	2019/09/07	NC		%	20
			Dissolved Chromium (Cr)	2019/09/07	NC		%	20
			Dissolved Cobalt (Co)	2019/09/07	NC		%	20
			Dissolved Copper (Cu)	2019/09/07	NC		%	20
			Dissolved Iron (Fe)	2019/09/07	NC		%	20
			Dissolved Lead (Pb)	2019/09/07	NC		%	20
			Dissolved Lithium (Li)	2019/09/07	NC		%	20
			Dissolved Manganese (Mn)	2019/09/07	NC		%	20
			Dissolved Molybdenum (Mo)	2019/09/07	NC		%	20
			Dissolved Nickel (Ni)	2019/09/07	NC		%	20
			Dissolved Phosphorus (P)	2019/09/07	NC		%	20
			Dissolved Selenium (Se)	2019/09/07	NC		%	20
			Dissolved Silicon (Si)	2019/09/07	NC		%	20
			Dissolved Silver (Ag)	2019/09/07	NC		%	20
			Dissolved Strontium (Sr)	2019/09/07	NC		%	20
			Dissolved Thallium (Tl)	2019/09/07	NC		%	20
			Dissolved Tin (Sn)	2019/09/07	NC		%	20
			Dissolved Titanium (Ti)	2019/09/07	NC		%	20
			Dissolved Uranium (U)	2019/09/07	NC		%	20
			Dissolved Vanadium (V)	2019/09/07	NC		%	20
			Dissolved Zinc (Zn)	2019/09/07	2.3		%	20
			Dissolved Zirconium (Zr)	2019/09/07	NC		%	20
9578601	EL2	Matrix Spike [WK9286-02]	Orthophosphate (P)	2019/09/06		104	%	80 - 120
9578601	EL2	Spiked Blank	Orthophosphate (P)	2019/09/06		90	%	80 - 120
9578601	EL2	Method Blank	Orthophosphate (P)	2019/09/06	<0.0030		mg/L	
9578601	EL2	RPD [WK9286-02]	Orthophosphate (P)	2019/09/06	NC		%	20
9578603	EL2	Matrix Spike [WK9309-02]	Orthophosphate (P)	2019/09/06		105	%	80 - 120
9578603	EL2	Spiked Blank	Orthophosphate (P)	2019/09/06		117	%	80 - 120
9578603	EL2	Method Blank	Orthophosphate (P)	2019/09/06	<0.0030		mg/L	
9578603	EL2	RPD [WK9309-02]	Orthophosphate (P)	2019/09/06	NC		%	20
9578833	MO5	Matrix Spike [WK9286-02]	Dissolved Chloride (Cl)	2019/09/06		92	%	80 - 120
			Dissolved Sulphate (SO4)	2019/09/06		NC	%	80 - 120
9578833	MO5	Spiked Blank	Dissolved Chloride (Cl)	2019/09/06		102	%	80 - 120
			Dissolved Sulphate (SO4)	2019/09/06		100	%	80 - 120
9578833	MO5	Method Blank	Dissolved Chloride (Cl)	2019/09/06	<0.50		mg/L	
			Dissolved Sulphate (SO4)	2019/09/06	<0.50		mg/L	
9578833	MO5	RPD [WK9286-02]	Dissolved Chloride (Cl)	2019/09/06	NC		%	20
			Dissolved Sulphate (SO4)	2019/09/06	0.95		%	20
9578835	MO5	Matrix Spike [WK9309-02]	Dissolved Chloride (Cl)	2019/09/06		91	%	80 - 120
			Dissolved Sulphate (SO4)	2019/09/06		NC	%	80 - 120
9578835	MO5	Spiked Blank	Dissolved Chloride (Cl)	2019/09/06		99	%	80 - 120
			Dissolved Sulphate (SO4)	2019/09/06		101	%	80 - 120
9578835	MO5	Method Blank	Dissolved Chloride (Cl)	2019/09/06	<0.50		mg/L	

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			Dissolved Sulphate (SO4)	2019/09/06	0.64, RDL=0.50		mg/L	
9578835	MO5	RPD [WK9309-02]	Dissolved Chloride (Cl)	2019/09/06	NC		%	20
			Dissolved Sulphate (SO4)	2019/09/06	0.98		%	20
9578881	BB3	Matrix Spike	Orthophosphate (P)	2019/09/06		87	%	80 - 120
9578881	BB3	Spiked Blank	Orthophosphate (P)	2019/09/06		98	%	80 - 120
9578881	BB3	Method Blank	Orthophosphate (P)	2019/09/06	<0.0030		mg/L	
9578881	BB3	RPD	Orthophosphate (P)	2019/09/06	1.7		%	20
9578885	VBA	Matrix Spike [WK9293-04]	Total Aluminum (Al)	2019/09/07		94	%	80 - 120
			Total Antimony (Sb)	2019/09/07		94	%	80 - 120
			Total Arsenic (As)	2019/09/07		95	%	80 - 120
			Total Barium (Ba)	2019/09/07		90	%	80 - 120
			Total Beryllium (Be)	2019/09/07		97	%	80 - 120
			Total Bismuth (Bi)	2019/09/07		95	%	80 - 120
			Total Boron (B)	2019/09/07		96	%	80 - 120
			Total Cadmium (Cd)	2019/09/07		94	%	80 - 120
			Total Chromium (Cr)	2019/09/07		94	%	80 - 120
			Total Cobalt (Co)	2019/09/07		94	%	80 - 120
			Total Copper (Cu)	2019/09/07		91	%	80 - 120
			Total Iron (Fe)	2019/09/07		96	%	80 - 120
			Total Lead (Pb)	2019/09/07		100	%	80 - 120
			Total Lithium (Li)	2019/09/07		95	%	80 - 120
			Total Manganese (Mn)	2019/09/07		93	%	80 - 120
			Total Molybdenum (Mo)	2019/09/07		99	%	80 - 120
			Total Nickel (Ni)	2019/09/07		92	%	80 - 120
			Total Phosphorus (P)	2019/09/07		97	%	80 - 120
			Total Selenium (Se)	2019/09/07		97	%	80 - 120
			Total Silicon (Si)	2019/09/07		NC	%	80 - 120
			Total Silver (Ag)	2019/09/07		94	%	80 - 120
			Total Strontium (Sr)	2019/09/07		NC	%	80 - 120
			Total Thallium (Tl)	2019/09/07		97	%	80 - 120
			Total Tin (Sn)	2019/09/07		96	%	80 - 120
			Total Titanium (Ti)	2019/09/07		98	%	80 - 120
			Total Uranium (U)	2019/09/07		100	%	80 - 120
			Total Vanadium (V)	2019/09/07		98	%	80 - 120
			Total Zinc (Zn)	2019/09/07		94	%	80 - 120
			Total Zirconium (Zr)	2019/09/07		99	%	80 - 120
9578885	VBA	Spiked Blank	Total Aluminum (Al)	2019/09/07		97	%	80 - 120
			Total Antimony (Sb)	2019/09/07		96	%	80 - 120
			Total Arsenic (As)	2019/09/07		96	%	80 - 120
			Total Barium (Ba)	2019/09/07		98	%	80 - 120
			Total Beryllium (Be)	2019/09/07		99	%	80 - 120
			Total Bismuth (Bi)	2019/09/07		99	%	80 - 120
			Total Boron (B)	2019/09/07		95	%	80 - 120
			Total Cadmium (Cd)	2019/09/07		96	%	80 - 120
			Total Chromium (Cr)	2019/09/07		96	%	80 - 120
			Total Cobalt (Co)	2019/09/07		98	%	80 - 120
			Total Copper (Cu)	2019/09/07		96	%	80 - 120
			Total Iron (Fe)	2019/09/07		99	%	80 - 120
			Total Lead (Pb)	2019/09/07		101	%	80 - 120
			Total Lithium (Li)	2019/09/07		101	%	80 - 120



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9578885	VBA	Method Blank	Total Manganese (Mn)	2019/09/07		98	%	80 - 120
			Total Molybdenum (Mo)	2019/09/07		97	%	80 - 120
			Total Nickel (Ni)	2019/09/07		97	%	80 - 120
			Total Phosphorus (P)	2019/09/07		95	%	80 - 120
			Total Selenium (Se)	2019/09/07		97	%	80 - 120
			Total Silicon (Si)	2019/09/07		96	%	80 - 120
			Total Silver (Ag)	2019/09/07		96	%	80 - 120
			Total Strontium (Sr)	2019/09/07		98	%	80 - 120
			Total Thallium (Tl)	2019/09/07		100	%	80 - 120
			Total Tin (Sn)	2019/09/07		97	%	80 - 120
			Total Titanium (Ti)	2019/09/07		97	%	80 - 120
			Total Uranium (U)	2019/09/07		100	%	80 - 120
			Total Vanadium (V)	2019/09/07		99	%	80 - 120
			Total Zinc (Zn)	2019/09/07		100	%	80 - 120
			Total Zirconium (Zr)	2019/09/07		98	%	80 - 120
			Total Aluminum (Al)	2019/09/07	<0.50		ug/L	
			Total Antimony (Sb)	2019/09/07	<0.020		ug/L	
			Total Arsenic (As)	2019/09/07	<0.020		ug/L	
			Total Barium (Ba)	2019/09/07	<0.020		ug/L	
			Total Beryllium (Be)	2019/09/07	<0.010		ug/L	
			Total Bismuth (Bi)	2019/09/07	<0.0050		ug/L	
			Total Boron (B)	2019/09/07	<10		ug/L	
			Total Cadmium (Cd)	2019/09/07	<0.0050		ug/L	
			Total Chromium (Cr)	2019/09/07	<0.10		ug/L	
			Total Cobalt (Co)	2019/09/07	<0.0050		ug/L	
			Total Copper (Cu)	2019/09/07	<0.050		ug/L	
			Total Iron (Fe)	2019/09/07	<1.0		ug/L	
			Total Lead (Pb)	2019/09/07	0.0063, RDL=0.0050 (2)		ug/L	
			Total Lithium (Li)	2019/09/07	<0.50		ug/L	
			Total Manganese (Mn)	2019/09/07	<0.050		ug/L	
			Total Molybdenum (Mo)	2019/09/07	<0.050		ug/L	
			Total Nickel (Ni)	2019/09/07	<0.020		ug/L	
			Total Phosphorus (P)	2019/09/07	<2.0		ug/L	
			Total Selenium (Se)	2019/09/07	<0.040		ug/L	
			Total Silicon (Si)	2019/09/07	<50		ug/L	
			Total Silver (Ag)	2019/09/07	<0.0050		ug/L	
			Total Strontium (Sr)	2019/09/07	<0.050		ug/L	
			Total Thallium (Tl)	2019/09/07	<0.0020		ug/L	
			Total Tin (Sn)	2019/09/07	<0.20		ug/L	
			Total Titanium (Ti)	2019/09/07	<0.50		ug/L	
			Total Uranium (U)	2019/09/07	<0.0020		ug/L	
			Total Vanadium (V)	2019/09/07	<0.20		ug/L	
			Total Zinc (Zn)	2019/09/07	0.15, RDL=0.10 (3)		ug/L	
9578885	VBA	RPD [WK9293-04]	Total Zirconium (Zr)	2019/09/07	<0.10		ug/L	
			Total Aluminum (Al)	2019/09/07	1.4		%	20
			Total Antimony (Sb)	2019/09/07	1.3		%	20
			Total Arsenic (As)	2019/09/07	6.4		%	20
			Total Barium (Ba)	2019/09/07	0.15		%	20
			Total Beryllium (Be)	2019/09/07	4.9		%	20
			Total Bismuth (Bi)	2019/09/07	NC		%	20



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578907	VBA	Matrix Spike [WK9316-04]	Total Boron (B)	2019/09/07	NC		%	20
			Total Cadmium (Cd)	2019/09/07	2.0		%	20
			Total Chromium (Cr)	2019/09/07	2.9		%	20
			Total Cobalt (Co)	2019/09/07	4.3		%	20
			Total Copper (Cu)	2019/09/07	0.24		%	20
			Total Iron (Fe)	2019/09/07	1.1		%	20
			Total Lead (Pb)	2019/09/07	NC		%	20
			Total Lithium (Li)	2019/09/07	0.87		%	20
			Total Manganese (Mn)	2019/09/07	0.99		%	20
			Total Molybdenum (Mo)	2019/09/07	2.2		%	20
			Total Nickel (Ni)	2019/09/07	1.4		%	20
			Total Phosphorus (P)	2019/09/07	1.1		%	20
			Total Selenium (Se)	2019/09/07	8.7		%	20
			Total Silicon (Si)	2019/09/07	0.87		%	20
			Total Silver (Ag)	2019/09/07	NC		%	20
			Total Strontium (Sr)	2019/09/07	0.29		%	20
			Total Thallium (Tl)	2019/09/07	13		%	20
			Total Tin (Sn)	2019/09/07	NC		%	20
			Total Titanium (Ti)	2019/09/07	NC		%	20
			Total Uranium (U)	2019/09/07	0.92		%	20
			Total Vanadium (V)	2019/09/07	NC		%	20
			Total Zinc (Zn)	2019/09/07	13		%	20
			Total Zirconium (Zr)	2019/09/07	5.6		%	20
			Total Aluminum (Al)	2019/09/07		96	%	80 - 120
			Total Antimony (Sb)	2019/09/07		95	%	80 - 120
			Total Arsenic (As)	2019/09/07		93	%	80 - 120
			Total Barium (Ba)	2019/09/07		93	%	80 - 120
			Total Beryllium (Be)	2019/09/07		98	%	80 - 120
			Total Bismuth (Bi)	2019/09/07		97	%	80 - 120
			Total Boron (B)	2019/09/07		98	%	80 - 120
			Total Cadmium (Cd)	2019/09/07		94	%	80 - 120
			Total Chromium (Cr)	2019/09/07		96	%	80 - 120
			Total Cobalt (Co)	2019/09/07		96	%	80 - 120
			Total Copper (Cu)	2019/09/07		94	%	80 - 120
			Total Iron (Fe)	2019/09/07		97	%	80 - 120
			Total Lead (Pb)	2019/09/07		101	%	80 - 120
			Total Lithium (Li)	2019/09/07		97	%	80 - 120
			Total Manganese (Mn)	2019/09/07		96	%	80 - 120
			Total Molybdenum (Mo)	2019/09/07		97	%	80 - 120
			Total Nickel (Ni)	2019/09/07		95	%	80 - 120
			Total Phosphorus (P)	2019/09/07		95	%	80 - 120
			Total Selenium (Se)	2019/09/07		95	%	80 - 120
			Total Silicon (Si)	2019/09/07		86	%	80 - 120
			Total Silver (Ag)	2019/09/07		94	%	80 - 120
			Total Strontium (Sr)	2019/09/07		NC	%	80 - 120
			Total Thallium (Tl)	2019/09/07		98	%	80 - 120
			Total Tin (Sn)	2019/09/07		97	%	80 - 120
			Total Titanium (Ti)	2019/09/07		94	%	80 - 120
			Total Uranium (U)	2019/09/07		100	%	80 - 120
			Total Vanadium (V)	2019/09/07		98	%	80 - 120
			Total Zinc (Zn)	2019/09/07		96	%	80 - 120



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578907	VBA	Spiked Blank	Total Zirconium (Zr)	2019/09/07		97	%	80 - 120
			Total Aluminum (Al)	2019/09/07		96	%	80 - 120
			Total Antimony (Sb)	2019/09/07		95	%	80 - 120
			Total Arsenic (As)	2019/09/07		95	%	80 - 120
			Total Barium (Ba)	2019/09/07		96	%	80 - 120
			Total Beryllium (Be)	2019/09/07		99	%	80 - 120
			Total Bismuth (Bi)	2019/09/07		100	%	80 - 120
			Total Boron (B)	2019/09/07		95	%	80 - 120
			Total Cadmium (Cd)	2019/09/07		96	%	80 - 120
			Total Chromium (Cr)	2019/09/07		96	%	80 - 120
			Total Cobalt (Co)	2019/09/07		97	%	80 - 120
			Total Copper (Cu)	2019/09/07		96	%	80 - 120
			Total Iron (Fe)	2019/09/07		98	%	80 - 120
			Total Lead (Pb)	2019/09/07		102	%	80 - 120
			Total Lithium (Li)	2019/09/07		100	%	80 - 120
			Total Manganese (Mn)	2019/09/07		97	%	80 - 120
			Total Molybdenum (Mo)	2019/09/07		96	%	80 - 120
			Total Nickel (Ni)	2019/09/07		96	%	80 - 120
			Total Phosphorus (P)	2019/09/07		95	%	80 - 120
			Total Selenium (Se)	2019/09/07		98	%	80 - 120
			Total Silicon (Si)	2019/09/07		94	%	80 - 120
			Total Silver (Ag)	2019/09/07		95	%	80 - 120
			Total Strontium (Sr)	2019/09/07		95	%	80 - 120
			Total Thallium (Tl)	2019/09/07		100	%	80 - 120
			Total Tin (Sn)	2019/09/07		96	%	80 - 120
			Total Titanium (Ti)	2019/09/07		96	%	80 - 120
			Total Uranium (U)	2019/09/07		102	%	80 - 120
			Total Vanadium (V)	2019/09/07		97	%	80 - 120
			Total Zinc (Zn)	2019/09/07		101	%	80 - 120
9578907	VBA	Method Blank	Total Zirconium (Zr)	2019/09/07		95	%	80 - 120
			Total Aluminum (Al)	2019/09/07	<0.50		ug/L	
			Total Antimony (Sb)	2019/09/07	<0.020		ug/L	
			Total Arsenic (As)	2019/09/07	<0.020		ug/L	
			Total Barium (Ba)	2019/09/07	<0.020		ug/L	
			Total Beryllium (Be)	2019/09/07	<0.010		ug/L	
			Total Bismuth (Bi)	2019/09/07	<0.0050		ug/L	
			Total Boron (B)	2019/09/07	<10		ug/L	
			Total Cadmium (Cd)	2019/09/07	<0.0050		ug/L	
			Total Chromium (Cr)	2019/09/07	<0.10		ug/L	
			Total Cobalt (Co)	2019/09/07	<0.0050		ug/L	
			Total Copper (Cu)	2019/09/07	<0.050		ug/L	
			Total Iron (Fe)	2019/09/07	<1.0		ug/L	
			Total Lead (Pb)	2019/09/07	<0.0050		ug/L	
			Total Lithium (Li)	2019/09/07	<0.50		ug/L	
			Total Manganese (Mn)	2019/09/07	<0.050		ug/L	
			Total Molybdenum (Mo)	2019/09/07	<0.050		ug/L	
			Total Nickel (Ni)	2019/09/07	<0.020		ug/L	
			Total Phosphorus (P)	2019/09/07	<2.0		ug/L	
			Total Selenium (Se)	2019/09/07	<0.040		ug/L	
			Total Silicon (Si)	2019/09/07	<50		ug/L	
			Total Silver (Ag)	2019/09/07	<0.0050		ug/L	
			Total Strontium (Sr)	2019/09/07	<0.050		ug/L	



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9578907	VBA	RPD [WK9316-04]	Total Thallium (Tl)	2019/09/07	<0.0020		ug/L	
			Total Tin (Sn)	2019/09/07	<0.20		ug/L	
			Total Titanium (Ti)	2019/09/07	<0.50		ug/L	
			Total Uranium (U)	2019/09/07	<0.0020		ug/L	
			Total Vanadium (V)	2019/09/07	0.29, RDL=0.20 (4)		ug/L	
			Total Zinc (Zn)	2019/09/07	<0.10		ug/L	
			Total Zirconium (Zr)	2019/09/07	<0.10		ug/L	
			Total Aluminum (Al)	2019/09/07	2.0		%	20
			Total Antimony (Sb)	2019/09/07	7.8		%	20
			Total Arsenic (As)	2019/09/07	0.57		%	20
			Total Barium (Ba)	2019/09/07	0.39		%	20
			Total Beryllium (Be)	2019/09/07	17		%	20
			Total Bismuth (Bi)	2019/09/07	NC		%	20
			Total Boron (B)	2019/09/07	NC		%	20
			Total Cadmium (Cd)	2019/09/07	6.9		%	20
			Total Chromium (Cr)	2019/09/07	6.2		%	20
			Total Cobalt (Co)	2019/09/07	0.93		%	20
			Total Copper (Cu)	2019/09/07	2.9		%	20
			Total Iron (Fe)	2019/09/07	1.8		%	20
			Total Lead (Pb)	2019/09/07	2.0		%	20
			Total Lithium (Li)	2019/09/07	8.8		%	20
			Total Manganese (Mn)	2019/09/07	1.6		%	20
			Total Molybdenum (Mo)	2019/09/07	0.050		%	20
			Total Nickel (Ni)	2019/09/07	1.1		%	20
			Total Phosphorus (P)	2019/09/07	15		%	20
			Total Selenium (Se)	2019/09/07	6.1		%	20
			Total Silicon (Si)	2019/09/07	0.17		%	20
			Total Silver (Ag)	2019/09/07	NC		%	20
			Total Strontium (Sr)	2019/09/07	1.1		%	20
			Total Thallium (Tl)	2019/09/07	0		%	20
			Total Tin (Sn)	2019/09/07	NC		%	20
			Total Titanium (Ti)	2019/09/07	NC		%	20
			Total Uranium (U)	2019/09/07	0.14		%	20
			Total Vanadium (V)	2019/09/07	NC		%	20
			Total Zinc (Zn)	2019/09/07	2.6		%	20
			Total Zirconium (Zr)	2019/09/07	2.9		%	20
9579603	TSO	Matrix Spike	Total Dissolved Solids	2019/09/09		98	%	80 - 120
9579603	TSO	Spiked Blank	Total Dissolved Solids	2019/09/09		100	%	80 - 120
9579603	TSO	Method Blank	Total Dissolved Solids	2019/09/09	<10		mg/L	
9579603	TSO	RPD	Total Dissolved Solids	2019/09/09	0.43		%	20
9579604	TSO	Spiked Blank	Total Suspended Solids	2019/09/09		103	%	80 - 120
9579604	TSO	Method Blank	Total Suspended Solids	2019/09/09	<1.0		mg/L	
9580236	KGH	Matrix Spike	Total Organic Carbon (C)	2019/09/09		97	%	80 - 120
9580236	KGH	Spiked Blank	Total Organic Carbon (C)	2019/09/09		100	%	80 - 120
9580236	KGH	Method Blank	Total Organic Carbon (C)	2019/09/09	<0.50		mg/L	
9580236	KGH	RPD	Total Organic Carbon (C)	2019/09/09	0.57		%	20
9580238	KGH	Matrix Spike	Dissolved Organic Carbon (C)	2019/09/10		NC	%	80 - 120
9580238	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/09/10		105	%	80 - 120
9580238	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/09/10	<0.50		mg/L	
9580238	KGH	RPD	Dissolved Organic Carbon (C)	2019/09/10	0.73		%	20



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9580522	KGH	Matrix Spike [WK9310-09]	Dissolved Organic Carbon (C)	2019/09/10		108	%	80 - 120
9580522	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/09/10		100	%	80 - 120
9580522	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/09/10	<0.50		mg/L	
9580522	KGH	RPD [WK9310-09]	Dissolved Organic Carbon (C)	2019/09/10	1.1		%	20
9580528	KGH	Matrix Spike [WK9297-11]	Total Organic Carbon (C)	2019/09/10		101	%	80 - 120
9580528	KGH	Spiked Blank	Total Organic Carbon (C)	2019/09/10		99	%	80 - 120
9580528	KGH	Method Blank	Total Organic Carbon (C)	2019/09/10	<0.50		mg/L	
9580528	KGH	RPD [WK9297-11]	Total Organic Carbon (C)	2019/09/10	3.3		%	20
9580531	KGH	Matrix Spike [WK9301-09]	Dissolved Organic Carbon (C)	2019/09/10		104	%	80 - 120
9580531	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/09/10		105	%	80 - 120
9580531	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/09/10	<0.50		mg/L	
9580531	KGH	RPD [WK9301-09]	Dissolved Organic Carbon (C)	2019/09/10	3.3		%	20
9580773	KGH	Matrix Spike [WK9315-11]	Total Organic Carbon (C)	2019/09/10		101	%	80 - 120
9580773	KGH	Spiked Blank	Total Organic Carbon (C)	2019/09/10		99	%	80 - 120
9580773	KGH	Method Blank	Total Organic Carbon (C)	2019/09/10	<0.50		mg/L	
9580773	KGH	RPD [WK9315-11]	Total Organic Carbon (C)	2019/09/10	0.94		%	20
9580774	IC4	Matrix Spike [WK9293-03]	Nitrate plus Nitrite (N)	2019/09/06		98	%	80 - 120
9580774	IC4	Spiked Blank	Nitrate plus Nitrite (N)	2019/09/06		105	%	80 - 120
9580774	IC4	Method Blank	Nitrate plus Nitrite (N)	2019/09/06	<0.0020		mg/L	
9580774	IC4	RPD [WK9293-03]	Nitrate plus Nitrite (N)	2019/09/06	0.74		%	25
9580777	IC4	Matrix Spike [WK9293-03]	Nitrite (N)	2019/09/06		91	%	80 - 120
9580777	IC4	Spiked Blank	Nitrite (N)	2019/09/06		99	%	80 - 120
9580777	IC4	Method Blank	Nitrite (N)	2019/09/06	<0.0020		mg/L	
9580777	IC4	RPD [WK9293-03]	Nitrite (N)	2019/09/06	NC		%	25
9580779	IC4	Matrix Spike	Nitrate plus Nitrite (N)	2019/09/06		102	%	80 - 120
9580779	IC4	Spiked Blank	Nitrate plus Nitrite (N)	2019/09/06		105	%	80 - 120
9580779	IC4	Method Blank	Nitrate plus Nitrite (N)	2019/09/06	<0.0020		mg/L	
9580779	IC4	RPD	Nitrate plus Nitrite (N)	2019/09/06	9.5		%	25
9580781	IC4	Matrix Spike	Nitrite (N)	2019/09/06		93	%	80 - 120
9580781	IC4	Spiked Blank	Nitrite (N)	2019/09/06		100	%	80 - 120
9580781	IC4	Method Blank	Nitrite (N)	2019/09/06	<0.0020		mg/L	
9580781	IC4	RPD	Nitrite (N)	2019/09/06	NC		%	25
9580786	KRA	Spiked Blank	Total Suspended Solids	2019/09/10		103	%	80 - 120
9580786	KRA	Method Blank	Total Suspended Solids	2019/09/10	<1.0		mg/L	
9580786	KRA	RPD	Total Suspended Solids	2019/09/10	7.1		%	20
9580820	SHI	Matrix Spike	Total Dissolved Solids	2019/09/10		NC	%	80 - 120
9580820	SHI	Spiked Blank	Total Dissolved Solids	2019/09/10		98	%	80 - 120
9580820	SHI	Method Blank	Total Dissolved Solids	2019/09/10	<10		mg/L	
9580820	SHI	RPD [WK9287-02]	Total Dissolved Solids	2019/09/10	0		%	20
9580824	WZ1	Matrix Spike [WK9310-02]	Total Dissolved Solids	2019/09/10		102	%	80 - 120
9580824	WZ1	Spiked Blank	Total Dissolved Solids	2019/09/10		105	%	80 - 120
9580824	WZ1	Method Blank	Total Dissolved Solids	2019/09/10	<10		mg/L	
9580824	WZ1	RPD [WK9309-02]	Total Dissolved Solids	2019/09/10	3.3		%	20
9580863	SHI	Matrix Spike	Total Suspended Solids	2019/09/10		NC	%	80 - 120
9580863	SHI	Spiked Blank	Total Suspended Solids	2019/09/10		105	%	80 - 120

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9580863	SHI	Method Blank	Total Suspended Solids	2019/09/10	<1.0		mg/L	
9580863	SHI	RPD	Total Suspended Solids	2019/09/10	2.8		%	20
9581299	MHK	Matrix Spike	Fluoride (F)	2019/09/09		102	%	80 - 120
9581299	MHK	Spiked Blank	Fluoride (F)	2019/09/09		102	%	80 - 120
9581299	MHK	Method Blank	Fluoride (F)	2019/09/09	<0.010		mg/L	
9581299	MHK	RPD	Fluoride (F)	2019/09/09	12		%	20
9581306	MHK	Matrix Spike [WK9304-02]	Fluoride (F)	2019/09/09		101	%	80 - 120
9581306	MHK	Spiked Blank	Fluoride (F)	2019/09/09		102	%	80 - 120
9581306	MHK	Method Blank	Fluoride (F)	2019/09/09	<0.010		mg/L	
9581306	MHK	RPD [WK9304-02]	Fluoride (F)	2019/09/09	1.7		%	20
9582030	KGH	Matrix Spike [WK9308-09]	Dissolved Organic Carbon (C)	2019/09/10		NC	%	80 - 120
9582030	KGH	Spiked Blank	Dissolved Organic Carbon (C)	2019/09/10		96	%	80 - 120
9582030	KGH	Method Blank	Dissolved Organic Carbon (C)	2019/09/10	<0.50		mg/L	
9582030	KGH	RPD [WK9308-09]	Dissolved Organic Carbon (C)	2019/09/10	1.2		%	20
9582147	KRA	Spiked Blank	Total Suspended Solids	2019/09/11		95	%	80 - 120
9582147	KRA	Method Blank	Total Suspended Solids	2019/09/11	<1.0		mg/L	
9582223	JLP	Matrix Spike	Dissolved Mercury (Hg)	2019/09/10		44 (1)	%	80 - 120
9582223	JLP	Spiked Blank	Dissolved Mercury (Hg)	2019/09/10		98	%	80 - 120
9582223	JLP	Method Blank	Dissolved Mercury (Hg)	2019/09/10	<0.0020		ug/L	
9582223	JLP	RPD	Dissolved Mercury (Hg)	2019/09/10	NC		%	20
9582337	CGP	Matrix Spike [WK9290-02]	Fluoride (F)	2019/09/10		98	%	80 - 120
9582337	CGP	Spiked Blank	Fluoride (F)	2019/09/10		100	%	80 - 120
9582337	CGP	Method Blank	Fluoride (F)	2019/09/10	<0.010		mg/L	
9582337	CGP	RPD [WK9292-02]	Fluoride (F)	2019/09/10	0		%	20
9582438	AA1	Matrix Spike [WK9313-04]	Total Aluminum (Al)	2019/09/10		92	%	80 - 120
			Total Antimony (Sb)	2019/09/10		98	%	80 - 120
			Total Arsenic (As)	2019/09/10		100	%	80 - 120
			Total Barium (Ba)	2019/09/10		101	%	80 - 120
			Total Beryllium (Be)	2019/09/10		97	%	80 - 120
			Total Bismuth (Bi)	2019/09/10		100	%	80 - 120
			Total Boron (B)	2019/09/10		98	%	80 - 120
			Total Cadmium (Cd)	2019/09/10		101	%	80 - 120
			Total Chromium (Cr)	2019/09/10		100	%	80 - 120
			Total Cobalt (Co)	2019/09/10		98	%	80 - 120
			Total Copper (Cu)	2019/09/10		98	%	80 - 120
			Total Iron (Fe)	2019/09/10		94	%	80 - 120
			Total Lead (Pb)	2019/09/10		103	%	80 - 120
			Total Lithium (Li)	2019/09/10		99	%	80 - 120
			Total Manganese (Mn)	2019/09/10		100	%	80 - 120
			Total Molybdenum (Mo)	2019/09/10		103	%	80 - 120
			Total Nickel (Ni)	2019/09/10		100	%	80 - 120
			Total Phosphorus (P)	2019/09/10		100	%	80 - 120
			Total Selenium (Se)	2019/09/10		105	%	80 - 120
			Total Silicon (Si)	2019/09/10		98	%	80 - 120
			Total Silver (Ag)	2019/09/10		100	%	80 - 120
			Total Strontium (Sr)	2019/09/10		NC	%	80 - 120
			Total Thallium (Tl)	2019/09/10		103	%	80 - 120
			Total Tin (Sn)	2019/09/10		101	%	80 - 120



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9582438	AA1	Spiked Blank	Total Titanium (Ti)	2019/09/10		101	%	80 - 120
			Total Uranium (U)	2019/09/10		103	%	80 - 120
			Total Vanadium (V)	2019/09/10		101	%	80 - 120
			Total Zinc (Zn)	2019/09/10		99	%	80 - 120
			Total Zirconium (Zr)	2019/09/10		102	%	80 - 120
			Total Sulphur (S)	2019/09/10		97	%	80 - 120
			Total Aluminum (Al)	2019/09/10		99	%	80 - 120
			Total Antimony (Sb)	2019/09/10		102	%	80 - 120
			Total Arsenic (As)	2019/09/10		101	%	80 - 120
			Total Barium (Ba)	2019/09/10		101	%	80 - 120
			Total Beryllium (Be)	2019/09/10		98	%	80 - 120
			Total Bismuth (Bi)	2019/09/10		102	%	80 - 120
			Total Boron (B)	2019/09/10		99	%	80 - 120
			Total Cadmium (Cd)	2019/09/10		103	%	80 - 120
			Total Chromium (Cr)	2019/09/10		100	%	80 - 120
			Total Cobalt (Co)	2019/09/10		100	%	80 - 120
			Total Copper (Cu)	2019/09/10		100	%	80 - 120
			Total Iron (Fe)	2019/09/10		103	%	80 - 120
			Total Lead (Pb)	2019/09/10		102	%	80 - 120
			Total Lithium (Li)	2019/09/10		98	%	80 - 120
			Total Manganese (Mn)	2019/09/10		102	%	80 - 120
			Total Molybdenum (Mo)	2019/09/10		101	%	80 - 120
			Total Nickel (Ni)	2019/09/10		101	%	80 - 120
			Total Phosphorus (P)	2019/09/10		98	%	80 - 120
			Total Selenium (Se)	2019/09/10		106	%	80 - 120
			Total Silicon (Si)	2019/09/10		100	%	80 - 120
			Total Silver (Ag)	2019/09/10		100	%	80 - 120
			Total Strontium (Sr)	2019/09/10		96	%	80 - 120
			Total Thallium (Tl)	2019/09/10		101	%	80 - 120
			Total Tin (Sn)	2019/09/10		103	%	80 - 120
			Total Titanium (Ti)	2019/09/10		103	%	80 - 120
			Total Uranium (U)	2019/09/10		100	%	80 - 120
			Total Vanadium (V)	2019/09/10		99	%	80 - 120
			Total Zinc (Zn)	2019/09/10		104	%	80 - 120
			Total Zirconium (Zr)	2019/09/10		101	%	80 - 120
			Total Sulphur (S)	2019/09/10		97	%	80 - 120
9582438	AA1	Method Blank	Total Aluminum (Al)	2019/09/10	<3.0		ug/L	
			Total Antimony (Sb)	2019/09/10	0.025, RDL=0.020 (5)		ug/L	
			Total Arsenic (As)	2019/09/10	<0.020		ug/L	
			Total Barium (Ba)	2019/09/10	<0.050		ug/L	
			Total Beryllium (Be)	2019/09/10	<0.010		ug/L	
			Total Bismuth (Bi)	2019/09/10	<0.010		ug/L	
			Total Boron (B)	2019/09/10	<10		ug/L	
			Total Cadmium (Cd)	2019/09/10	<0.0050		ug/L	
			Total Chromium (Cr)	2019/09/10	<0.10		ug/L	
			Total Cobalt (Co)	2019/09/10	<0.010		ug/L	
			Total Copper (Cu)	2019/09/10	<0.10		ug/L	
			Total Iron (Fe)	2019/09/10	<5.0		ug/L	
			Total Lead (Pb)	2019/09/10	<0.020		ug/L	
			Total Lithium (Li)	2019/09/10	<0.50		ug/L	
			Total Manganese (Mn)	2019/09/10	<0.10		ug/L	

BUREAU
VERITAS

BV Labs Job #: B974329

Report Date: 2019/09/16

Goldcorp Inc

Client Project #: Coffee Gold Project - SW

Site Location: Coffee Creek

Your P.O. #: 4570046268

Sampler Initials: KT

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9582438	AA1	RPD [WK9314-04]	Total Molybdenum (Mo)	2019/09/10	<0.050		ug/L	
			Total Nickel (Ni)	2019/09/10	<0.10		ug/L	
			Total Phosphorus (P)	2019/09/10	<5.0		ug/L	
			Total Selenium (Se)	2019/09/10	<0.040		ug/L	
			Total Silicon (Si)	2019/09/10	<50		ug/L	
			Total Silver (Ag)	2019/09/10	<0.010		ug/L	
			Total Strontium (Sr)	2019/09/10	<0.050		ug/L	
			Total Thallium (Tl)	2019/09/10	<0.0020		ug/L	
			Total Tin (Sn)	2019/09/10	<0.20		ug/L	
			Total Titanium (Ti)	2019/09/10	<2.0		ug/L	
			Total Uranium (U)	2019/09/10	<0.0050		ug/L	
			Total Vanadium (V)	2019/09/10	<0.20		ug/L	
			Total Zinc (Zn)	2019/09/10	<1.0		ug/L	
			Total Zirconium (Zr)	2019/09/10	<0.10		ug/L	
			Total Sulphur (S)	2019/09/10	<600		ug/L	
			Total Aluminum (Al)	2019/09/10	4.5		%	20
			Total Antimony (Sb)	2019/09/10	2.5		%	20
			Total Arsenic (As)	2019/09/10	1.2		%	20
			Total Barium (Ba)	2019/09/10	1.5		%	20
			Total Beryllium (Be)	2019/09/10	NC		%	20
			Total Bismuth (Bi)	2019/09/10	NC		%	20
			Total Boron (B)	2019/09/10	NC		%	20
			Total Cadmium (Cd)	2019/09/10	17		%	20
			Total Chromium (Cr)	2019/09/10	9.3		%	20
			Total Cobalt (Co)	2019/09/10	11		%	20
			Total Copper (Cu)	2019/09/10	0.90		%	20
			Total Iron (Fe)	2019/09/10	0.42		%	20
			Total Lead (Pb)	2019/09/10	7.1		%	20
			Total Lithium (Li)	2019/09/10	2.3		%	20
			Total Manganese (Mn)	2019/09/10	3.4		%	20
			Total Molybdenum (Mo)	2019/09/10	3.0		%	20
			Total Nickel (Ni)	2019/09/10	3.8		%	20
			Total Phosphorus (P)	2019/09/10	12		%	20
			Total Selenium (Se)	2019/09/10	10		%	20
			Total Silicon (Si)	2019/09/10	3.0		%	20
			Total Silver (Ag)	2019/09/10	NC		%	20
			Total Strontium (Sr)	2019/09/10	1.7		%	20
			Total Thallium (Tl)	2019/09/10	4.7		%	20
			Total Tin (Sn)	2019/09/10	NC		%	20
			Total Titanium (Ti)	2019/09/10	1.7		%	20
			Total Uranium (U)	2019/09/10	2.9		%	20
			Total Vanadium (V)	2019/09/10	2.1		%	20
			Total Zinc (Zn)	2019/09/10	2.6		%	20
			Total Zirconium (Zr)	2019/09/10	NC		%	20
			Total Sulphur (S)	2019/09/10	2.9		%	20
9582609	KGH	Matrix Spike	Total Organic Carbon (C)	2019/09/11		93	%	80 - 120
9582609	KGH	Spiked Blank	Total Organic Carbon (C)	2019/09/11		96	%	80 - 120
9582609	KGH	Method Blank	Total Organic Carbon (C)	2019/09/11	<0.50		mg/L	
9582609	KGH	RPD	Total Organic Carbon (C)	2019/09/11	4.5		%	20
9584214	FM0	Matrix Spike [WK9286-08]	Total Ammonia (N)	2019/09/12		90	%	80 - 120
9584214	FM0	Spiked Blank	Total Ammonia (N)	2019/09/12		100	%	80 - 120



BUREAU
VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9584214	FM0	Method Blank	Total Ammonia (N)	2019/09/12	<0.0050		mg/L	
9584214	FM0	RPD [WK9286-08]	Total Ammonia (N)	2019/09/12	1.3		%	20
9584217	FM0	Matrix Spike [WK9308-08]	Total Ammonia (N)	2019/09/12		93	%	80 - 120
9584217	FM0	Spiked Blank	Total Ammonia (N)	2019/09/12		107	%	80 - 120
9584217	FM0	Method Blank	Total Ammonia (N)	2019/09/12	<0.0050		mg/L	
9584217	FM0	RPD [WK9308-08]	Total Ammonia (N)	2019/09/12	6.5		%	20
9586061	AA1	Spiked Blank	Dissolved Antimony (Sb)	2019/09/12		97	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/12		101	%	80 - 120
9586061	AA1	Method Blank	Dissolved Antimony (Sb)	2019/09/12	<0.020		ug/L	
			Dissolved Zinc (Zn)	2019/09/12	<0.10		ug/L	
9587211	FM0	Matrix Spike [WK9318-08]	Total Ammonia (N)	2019/09/13		96	%	80 - 120
9587211	FM0	Spiked Blank	Total Ammonia (N)	2019/09/13		110	%	80 - 120
9587211	FM0	Method Blank	Total Ammonia (N)	2019/09/13	<0.0050		mg/L	
9587211	FM0	RPD [WK9318-08]	Total Ammonia (N)	2019/09/13	7.4		%	20
9590469	GTO	Matrix Spike [WK9287-10]	Free Cyanide	2019/09/13		104	%	80 - 120
9590469	GTO	Spiked Blank	Free Cyanide	2019/09/13		103	%	80 - 120
9590469	GTO	Method Blank	Free Cyanide	2019/09/13	<0.0010		mg/L	
9590469	GTO	RPD [WK9287-10]	Free Cyanide	2019/09/13	NC		%	20
9590470	GTO	Matrix Spike [WK9313-10]	Free Cyanide	2019/09/13		105	%	80 - 120
9590470	GTO	Spiked Blank	Free Cyanide	2019/09/13		104	%	80 - 120
9590470	GTO	Method Blank	Free Cyanide	2019/09/13	<0.0010		mg/L	
9590470	GTO	RPD [WK9313-10]	Free Cyanide	2019/09/13	NC		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Method Blank exceeds acceptance limits for Lead - 2X RDL acceptable for low level metals determination.

(3) Method Blank exceeds acceptance limits for Zinc - 2X RDL acceptable for low level metals determination.

(4) Method Blank exceeds acceptance limits for Vanadium - 2X RDL acceptable for low level metals determination.

(5) Method blank exceeds acceptance limits for Sb- 2X RDL acceptable for low level metals determination.



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VERITAS

BV Labs Job #: B974329
Report Date: 2019/09/16

Goldcorp Inc
Client Project #: Coffee Gold Project - SW
Site Location: Coffee Creek
Your P.O. #: 4570046268
Sampler Initials: KT

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Anastasia Hamanov, Scientific Specialist

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Harry (Peng) Liang, Senior Analyst

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Custody Tracking Form



W16814

Please use this form for custody tracking when submitting the work instructions via eTR (electronic Test Requisition). Please ensure your form has a barcode or a BV Labs eTR confirmation number in the top right hand side. This number links your electronic submission to your samples.

First Sample: CC-0.5
Last Sample: Trip Blank
Sample Count: 33

Relinquished By				Received By			
Print	Sign	Date	2019/09/04	Print	Sign	Date	2019/09/05
		Time (24 HR)	08:00			Time (24 HR)	08:00
Print	Sign	Date	YYYY/MM/DD	Print	Sign	Date	YYYY/MM/DD
		Time (24 HR)	HH:MM			Time (24 HR)	HH:MM
Print	Sign	Date	YYYY/MM/DD	Print	Sign	Date	YYYY/MM/DD
		Time (24 HR)	HH:MM			Time (24 HR)	HH:MM

Submission Triage Information

Sampled By

Kate T., Carolyn J., Andrew T.

of Coolers/Pkgs:

6

Rush ☐Immediate Test ☐Food Residue ☐Micro ☐Food Chemistry ☐

*** LAB USE ONLY ***

Received At

Comments

Labeled By

Verified By



B974329_COC

Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)		1	2	3
See ACTR					

RECEIVED IN WHITEHORSE

BY: mDuncan@1330

2019-09-04

TEMP:

3 / 5 / 4
5 6 7
5 6 8Temp 5 | 6 | 5
5 | 7 | 5
5 | 7 | 7

Appendix C: Ground Water Quality Results



Your Project #: A362-4
 Site Location: COFFEE CREEK - GROUND WATER
 Your C.O.C. #: 591794-04-01

Attention: Jordi Helsen

LORAX ENVIRONMENTAL SERVICES LTD.
 2289 BURRARD STREET
 VANCOUVER, BC
 CANADA V6J 3H9

Report Date: 2019/09/09
 Report #: R2778200
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B970851

Received: 2019/08/26, 14:05

Sample Matrix: Ground Water
 # Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	7	N/A	2019/08/27	BBY6SOP-00026	SM 22 2320 B m
Bromide by IC (1)	7	N/A	2019/08/29	AB SOP-00052	SM 23 4110 B m
Low level chloride/sulphate by AC	5	N/A	2019/08/28	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO4-E m
Low level chloride/sulphate by AC	2	N/A	2019/08/29	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO4-E m
Carbon (DOC) (1, 2)	7	N/A	2019/08/29	AB SOP-00087	MMCW 119 1996 m
Conductance - Low Level	7	N/A	2019/08/27	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	7	N/A	2019/08/27	BBY6SOP-00048	SM 23 4500-F C m
Sulphide (as H ₂ S) Calculation - diss.	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO ₃) (3)	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CV	7	2019/08/27	2019/08/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	7	2019/08/27	2019/08/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	7	N/A	2019/08/27	BBY7SOP-00002	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	4	N/A	2019/08/27	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (total)	3	N/A	2019/08/28	BBY7SOP-00002	EPA 6020b R2 m
Nitrogen (Tot. Diss) - FF/FP	7	N/A	2019/08/27	BBY6SOP-00016	SM 22 4500-N C m
Nitrogen (Total)	7	N/A	2019/08/27	BBY6SOP-00016	SM 22 4500-N C m
Ammonia-N Low Level (Preserved) (1)	7	N/A	2019/08/28	AB SOP-00007	SM 23 4500 NH ₃ A G m
Nitrate+Nitrite (N) (low level)	7	N/A	2019/08/27	BBY6SOP-00010	SM 23 4500-NO ₃ - I m
Nitrite (N) (low level)	7	N/A	2019/08/27	BBY6SOP-00010	SM 23 4500-NO ₃ - I m
Nitrogen - Nitrate (as N) Low Level Calc	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Filter and HNO ₃ Preserve for Metals	7	N/A	2019/08/26	BBY7 WI-00004	SM 23 3030B m
pH @25°C (4)	7	N/A	2019/08/27	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphide (1)	7	N/A	2019/08/28	AB SOP-00080	SM 23 4500 S ₂ -A D Fm
Total Dissolved Solids (Filt. Residue)	7	2019/08/28	2019/08/31	BBY6SOP-00033	SM 23 2540 C m
TKN (Calc. TN, N/N) dissolved	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
TKN (Calc. TN, N/N) total	7	N/A	2019/08/28	BBY WI-00033	Auto Calc
Carbon (Total Organic) (1, 5)	7	N/A	2019/08/29	AB SOP-00087	MMCW 119 1996 m



Your Project #: A362-4
 Site Location: COFFEE CREEK - GROUND WATER
 Your C.O.C. #: 591794-04-01

Attention: Jordi Helsen

LORAX ENVIRONMENTAL SERVICES LTD.
 2289 BURRARD STREET
 VANCOUVER, BC
 CANADA V6J 3H9

Report Date: 2019/09/09
 Report #: R2778200
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B970851

Received: 2019/08/26, 14:05

Sample Matrix: Ground Water
 # Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Phosphorus -P (Total, Dissolved) (1, 6)	7	2019/08/30	2019/09/03	AB SOP-00024	SM 23 4500-P A,B,F m
Total Phosphorus (1)	7	2019/08/30	2019/09/03	AB SOP-00024	SM 23 4500-P A,B,F m
Total Suspended Solids (NFR) (1)	7	2019/08/28	2019/08/28	AB SOP-00061	SM 23 2540 D m
Turbidity	7	N/A	2019/08/27	BBY6SOP-00027	SM 23 2130 B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by BV Labs Calgary Environmental

(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

(3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

(4) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.

(5) TOC present in the sample should be considered as non-purgeable TOC.

(6) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.



Your Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Your C.O.C. #: 591794-04-01

Attention: Jordi Helsen

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2019/09/09
Report #: R2778200
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B970851

Received: 2019/08/26, 14:05

Encryption Key

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Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bvlabs.com
Phone# (604) 734 7276

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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1604			WJ1604			WJ1605		
Sampling Date		2019/08/21 17:35			2019/08/21 17:35			2019/08/22 14:40		
COC Number		591794-04-01			591794-04-01			591794-04-01		
	UNITS	MW16-01WB	RDL	QC Batch	MW16-01WB Lab-Dup	RDL	QC Batch	MW14-02A	RDL	QC Batch

Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD		ONSITE				FIELD		ONSITE
Nitrate (N)	mg/L	0.0026	0.0020	9563539				0.176	0.0020	9563539
Dissolved Total Kjeldahl Nitrogen (Calc)	mg/L	0.20	0.20	9563540				0.083	0.020	9563540
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	0.20	9563541				0.065	0.020	9563541

Misc. Inorganics										
Fluoride (F)	mg/L	0.200	0.010	9564303				0.097	0.010	9564303
Dissolved Organic Carbon (C)	mg/L	210 (1)	25	9567502				0.61	0.50	9567502
pH	pH	7.09	N/A	9565009				7.95	N/A	9565009
Alkalinity (Total as CaCO3)	mg/L	78.7	0.50	9565005				143	0.50	9565005
Total Organic Carbon (C)	mg/L	460 (1)	25	9567496				<0.50	0.50	9567496
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9565005				<0.50	0.50	9565005
Bicarbonate (HCO3)	mg/L	96.0	0.50	9565005				174	0.50	9565005
Carbonate (CO3)	mg/L	<0.50	0.50	9565005				<0.50	0.50	9565005
Hydroxide (OH)	mg/L	<0.50	0.50	9565005				<0.50	0.50	9565005
Total Suspended Solids	mg/L	10	1.0	9566891	10	1.0	9566891	3.4	1.0	9566891

Anions										
Dissolved Bromide (Br)	mg/L	<0.010	0.010	9568416				<0.010	0.010	9568416
Dissolved Sulphide	mg/L	0.085	0.0018	9566409	0.081	0.0018	9566409	<0.0018	0.0018	9566409
Dissolved Chloride (Cl)	mg/L	0.71	0.50	9569207				0.54	0.50	9567221
Dissolved Sulphate (SO4)	mg/L	14	0.50	9569207				50	0.50	9567221

Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0057	0.0030	9569792				0.0089	0.0030	9569792
Total Phosphorus (P)	mg/L	0.0096	0.0030	9569795				0.0087	0.0030	9569795
Total Ammonia (N)	mg/L	0.044	0.0050	9566439				0.053	0.0050	9566439
Nitrate plus Nitrite (N)	mg/L	0.0026	0.0020	9565412				0.178	0.0020	9565412
Nitrite (N)	mg/L	<0.0020	0.0020	9565415				0.0020	0.0020	9565415
Dissolved Nitrogen (N)	mg/L	0.20 (2)	0.20	9564501				0.262	0.020	9564501
Total Nitrogen (N)	mg/L	<0.20 (2)	0.20	9564498				0.243	0.020	9564498

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Detection limits raised due to sample matrix.

(2) RDL raised due to sample matrix interference.



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1604			WJ1604			WJ1605		
Sampling Date		2019/08/21 17:35			2019/08/21 17:35			2019/08/22 14:40		
COC Number		591794-04-01			591794-04-01			591794-04-01		
	UNITS	MW16-01WB	RDL	QC Batch	MW16-01WB Lab-Dup	RDL	QC Batch	MW14-02A	RDL	QC Batch
Physical Properties										
Conductivity	uS/cm	178	1.0	9565011				361	1.0	9565011
Physical Properties										
Turbidity	NTU	70	0.10	9565068				0.74	0.10	9565068
Total Dissolved Solids	mg/L	96	10	9566278				216	10	9566278
RDL = Reportable Detection Limit										
Lab-Dup = Laboratory Initiated Duplicate										



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1605			WJ1606	WJ1607		
Sampling Date		2019/08/22 14:40			2019/08/22 12:40	2019/08/22 16:00		
COC Number		591794-04-01			591794-04-01	591794-04-01		
	UNITS	MW14-02A Lab-Dup	RDL	QC Batch	MW14-02B	BD2-Q3	RDL	QC Batch
Calculated Parameters								
Filter and HNO3 Preservation	N/A				FIELD	FIELD		ONSITE
Nitrate (N)	mg/L				0.152	0.175	0.0020	9563539
Dissolved Total Kjeldahl Nitrogen (Calc)	mg/L				0.073	0.057	0.020	9563540
Total Total Kjeldahl Nitrogen (Calc)	mg/L				0.063	0.086	0.020	9563541
Misc. Inorganics								
Fluoride (F)	mg/L				0.110	0.096	0.010	9564303
Dissolved Organic Carbon (C)	mg/L				0.59	<0.50	0.50	9567502
pH	pH	7.88	N/A	9565009	7.95	7.98	N/A	9565009
Alkalinity (Total as CaCO3)	mg/L	143	0.50	9565005	179	144	0.50	9565005
Total Organic Carbon (C)	mg/L				<0.50	<0.50	0.50	9567496
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9565005	<0.50	<0.50	0.50	9565005
Bicarbonate (HCO3)	mg/L	174	0.50	9565005	218	176	0.50	9565005
Carbonate (CO3)	mg/L	<0.50	0.50	9565005	<0.50	<0.50	0.50	9565005
Hydroxide (OH)	mg/L	<0.50	0.50	9565005	<0.50	<0.50	0.50	9565005
Total Suspended Solids	mg/L				<1.0	5.2	1.0	9566891
Anions								
Dissolved Bromide (Br)	mg/L				<0.010	<0.010	0.010	9568416
Dissolved Sulphide	mg/L				<0.0018	<0.0018	0.0018	9566409
Dissolved Chloride (Cl)	mg/L	0.64	0.50	9567221	0.62	0.65	0.50	9567221
Dissolved Sulphate (SO4)	mg/L	50	0.50	9567221	75	50	0.50	9567221
Nutrients								
Dissolved Phosphorus (P)	mg/L				0.0068	0.0083	0.0030	9569792
Total Phosphorus (P)	mg/L				0.0063	0.0095	0.0030	9569795
Total Ammonia (N)	mg/L				0.058	0.049	0.0050	9566439
Nitrate plus Nitrite (N)	mg/L	0.186	0.0020	9565412	0.152	0.175	0.0020	9565412
Nitrite (N)	mg/L	<0.0020	0.0020	9565415	<0.0020	<0.0020	0.0020	9565415
Dissolved Nitrogen (N)	mg/L				0.226	0.232	0.020	9564501
Total Nitrogen (N)	mg/L				0.215	0.261	0.020	9564498
Physical Properties								
Conductivity	uS/cm	356	1.0	9565011	470	369	1.0	9565011
RDL = Reportable Detection Limit								
Lab-Dup = Laboratory Initiated Duplicate								
N/A = Not Applicable								



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1605			WJ1606	WJ1607		
Sampling Date		2019/08/22 14:40			2019/08/22 12:40	2019/08/22 16:00		
COC Number		591794-04-01			591794-04-01	591794-04-01		
	UNITS	MW14-02A Lab-Dup	RDL	QC Batch	MW14-02B	BD2-Q3	RDL	QC Batch
Physical Properties								
Turbidity	NTU				0.56	0.62	0.10	9565068
Total Dissolved Solids	mg/L				282	234	10	9566278
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated Duplicate								



BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1607			WJ1608		WJ1609		
Sampling Date		2019/08/22 16:00			2019/08/22 11:30		2019/08/22 16:00		
COC Number		591794-04-01			591794-04-01		591794-04-01		
	UNITS	BD2-Q3 Lab-Dup	RDL	QC Batch	MW15-01WB	RDL	MW15-04WB	RDL	QC Batch

Calculated Parameters									
Filter and HNO3 Preservation	N/A				FIELD		FIELD		ONSITE
Nitrate (N)	mg/L				0.0209	0.0020	0.480	0.0020	9563539
Dissolved Total Kjeldahl Nitrogen (Calc)	mg/L				0.77	0.20	0.44	0.20	9563540
Total Total Kjeldahl Nitrogen (Calc)	mg/L				0.052	0.020	0.184	0.020	9563541

Misc. Inorganics									
Fluoride (F)	mg/L				0.058	0.010	0.110	0.010	9564303
Dissolved Organic Carbon (C)	mg/L				440 (1)	25	190 (1)	25	9567502
pH	pH				7.76	N/A	7.87	N/A	9565009
Alkalinity (Total as CaCO3)	mg/L				580	0.50	229	0.50	9565005
Total Organic Carbon (C)	mg/L				33 (1)	5.0	170 (1)	25	9567496
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	<0.50	0.50	9565005
Bicarbonate (HCO3)	mg/L				708	0.50	279	0.50	9565005
Carbonate (CO3)	mg/L				<0.50	0.50	<0.50	0.50	9565005
Hydroxide (OH)	mg/L				<0.50	0.50	<0.50	0.50	9565005
Total Suspended Solids	mg/L				3.3	1.0	1.5	1.0	9566891

Anions									
Dissolved Bromide (Br)	mg/L	<0.010	0.010	9568416	0.17	0.010	0.023	0.010	9568416
Dissolved Sulphide	mg/L				0.052 (2)	0.0018	<0.0018	0.0018	9566409
Dissolved Chloride (Cl)	mg/L				0.95	0.50	0.79	0.50	9567221
Dissolved Sulphate (SO4)	mg/L				850 (3)	5.0	120	0.50	9567221

Nutrients									
Dissolved Phosphorus (P)	mg/L				0.0058	0.0030	0.0036	0.0030	9569792
Total Phosphorus (P)	mg/L				<0.0030	0.0030	0.0042	0.0030	9569795
Total Ammonia (N)	mg/L				0.061	0.0050	0.053	0.0050	9566439
Nitrate plus Nitrite (N)	mg/L				0.0209	0.0020	0.480	0.0020	9565412
Nitrite (N)	mg/L				<0.0020	0.0020	<0.0020	0.0020	9565415

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Detection limits raised due to sample matrix.

(2) Sample pH <9, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

(3) Detection limits raised due to dilution to bring analyte within the calibrated range.



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BV Labs Job #: B970851
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LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1607			WJ1608		WJ1609		
Sampling Date		2019/08/22 16:00			2019/08/22 11:30		2019/08/22 16:00		
COC Number		591794-04-01			591794-04-01		591794-04-01		
	UNITS	BD2-Q3 Lab-Dup	RDL	QC Batch	MW15-01WB	RDL	MW15-04WB	RDL	QC Batch
Dissolved Nitrogen (N)	mg/L				0.79 (1)	0.20	0.92 (1)	0.20	9564501
Total Nitrogen (N)	mg/L				0.079	0.020	0.664	0.020	9564498
Physical Properties									
Conductivity	uS/cm				2190	1.0	644	1.0	9565011
Physical Properties									
Turbidity	NTU				12	0.10	<0.10	0.10	9565068
Total Dissolved Solids	mg/L				1910	10	438	10	9566278
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated Duplicate (1) RDL raised due to sample matrix interference.									



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VERITAS

BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1609			WJ1610			WJ1610		
Sampling Date		2019/08/22 16:00			2019/08/22 16:45			2019/08/22 16:45		
COC Number		591794-04-01			591794-04-01			591794-04-01		
	UNITS	MW15-04WB Lab-Dup	RDL	QC Batch	BD1-Q3	RDL	QC Batch	BD1-Q3 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Filter and HNO3 Preservation	N/A				FIELD		ONSITE			
Nitrate (N)	mg/L				0.474	0.0020	9563539			
Dissolved Total Kjeldahl Nitrogen (Calc)	mg/L				0.194	0.020	9563540			
Total Total Kjeldahl Nitrogen (Calc)	mg/L				0.157	0.020	9563541			
Misc. Inorganics										
Fluoride (F)	mg/L				0.110	0.010	9564303			
Dissolved Organic Carbon (C)	mg/L				14	0.50	9567502			
pH	pH				7.87	N/A	9565009			
Alkalinity (Total as CaCO3)	mg/L				227	0.50	9565005			
Total Organic Carbon (C)	mg/L				7.9	0.50	9567496			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9565005			
Bicarbonate (HCO3)	mg/L				277	0.50	9565005			
Carbonate (CO3)	mg/L				<0.50	0.50	9565005			
Hydroxide (OH)	mg/L				<0.50	0.50	9565005			
Total Suspended Solids	mg/L				<1.0	1.0	9566891			
Anions										
Dissolved Bromide (Br)	mg/L				0.018	0.010	9568416			
Dissolved Sulphide	mg/L				<0.0018	0.0018	9566409			
Dissolved Chloride (Cl)	mg/L				0.78	0.50	9569207			
Dissolved Sulphate (SO4)	mg/L				130	0.50	9569207			
Nutrients										
Dissolved Phosphorus (P)	mg/L				0.0035	0.0030	9569792			
Total Phosphorus (P)	mg/L				<0.0030	0.0030	9569795			
Total Ammonia (N)	mg/L	0.058	0.0050	9566439	0.047	0.0050	9566439			
Nitrate plus Nitrite (N)	mg/L				0.474	0.0020	9565412			
Nitrite (N)	mg/L				<0.0020	0.0020	9565415			
Dissolved Nitrogen (N)	mg/L				0.668	0.020	9564501			
Total Nitrogen (N)	mg/L				0.631	0.020	9564498	0.627	0.020	9564498
Physical Properties										
Conductivity	uS/cm				644	1.0	9565011			
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated Duplicate N/A = Not Applicable										



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

RESULTS OF CHEMICAL ANALYSES OF GROUND WATER

BV Labs ID		WJ1609			WJ1610			WJ1610		
Sampling Date		2019/08/22 16:00			2019/08/22 16:45			2019/08/22 16:45		
COC Number		591794-04-01			591794-04-01			591794-04-01		
	UNITS	MW15-04WB Lab-Dup	RDL	QC Batch	BD1-Q3	RDL	QC Batch	BD1-Q3 Lab-Dup	RDL	QC Batch
Physical Properties										
Turbidity	NTU				0.19	0.10	9565068			
Total Dissolved Solids	mg/L				412	10	9566278			
RDL = Reportable Detection Limit										
Lab-Dup = Laboratory Initiated Duplicate										



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VERITAS

BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

MISCELLANEOUS (GROUND WATER)

BV Labs ID		WJ1604	WJ1605	WJ1606	WJ1607		WJ1608		
Sampling Date		2019/08/21 17:35	2019/08/22 14:40	2019/08/22 12:40	2019/08/22 16:00		2019/08/22 11:30		
COC Number		591794-04-01	591794-04-01	591794-04-01	591794-04-01		591794-04-01		
	UNITS	MW16-01WB	MW14-02A	MW14-02B	BD2-Q3	RDL	MW15-01WB	RDL	QC Batch

Calculated Parameters

Dissolved Sulphide (as H ₂ S)	mg/L	0.090	<0.0018	<0.0018	<0.0018	0.0018	0.055	0.0019	9563537
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RDL = Reportable Detection Limit

BV Labs ID		WJ1609	WJ1610		
Sampling Date		2019/08/22 16:00	2019/08/22 16:45		
COC Number		591794-04-01	591794-04-01		
	UNITS	MW15-04WB	BD1-Q3	RDL	QC Batch

Calculated Parameters

Dissolved Sulphide (as H ₂ S)	mg/L	<0.0018	<0.0018	0.0018	9563537
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RDL = Reportable Detection Limit



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

LOW LEVEL DISSOLVED METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1604		WJ1605	WJ1606	WJ1607		
Sampling Date		2019/08/21 17:35		2019/08/22 14:40	2019/08/22 12:40	2019/08/22 16:00		
COC Number		591794-04-01		591794-04-01	591794-04-01	591794-04-01		
	UNITS	MW16-01WB	QC Batch	MW14-02A	MW14-02B	BD2-Q3	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	71.4	9562652	179	227	176	0.50	9562652
Elements								
Dissolved Mercury (Hg)	ug/L	<0.0020	9564712	0.0060	0.0022	0.0064	0.0020	9564712
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	0.52	9563950	2.40	1.06	1.89	0.50	9563950
Dissolved Antimony (Sb)	ug/L	0.065	9563950	0.658	4.65	0.687	0.020	9563950
Dissolved Arsenic (As)	ug/L	4.37	9563950	56.4	37.2	57.0	0.020	9563950
Dissolved Barium (Ba)	ug/L	18.6	9563950	9.84	28.5	9.70	0.020	9563950
Dissolved Beryllium (Be)	ug/L	0.045	9563950	<0.010	<0.010	<0.010	0.010	9563950
Dissolved Bismuth (Bi)	ug/L	<0.0050	9563950	<0.0050	<0.0050	<0.0050	0.0050	9563950
Dissolved Boron (B)	ug/L	<10	9563950	<10	<10	<10	10	9563950
Dissolved Cadmium (Cd)	ug/L	<0.0050	9563950	<0.0050	<0.0050	<0.0050	0.0050	9563950
Dissolved Chromium (Cr)	ug/L	<0.10	9563950	0.54	0.52	0.55	0.10	9563950
Dissolved Cobalt (Co)	ug/L	0.0161	9563950	0.0118	0.0648	0.0098	0.0050	9563950
Dissolved Copper (Cu)	ug/L	0.925	9563950	<0.050	<0.050	<0.050	0.050	9563950
Dissolved Iron (Fe)	ug/L	1900	9563950	<1.0	<1.0	<1.0	1.0	9563950
Dissolved Lead (Pb)	ug/L	0.0201	9563950	<0.0050	<0.0050	<0.0050	0.0050	9563950
Dissolved Lithium (Li)	ug/L	14.7	9563950	6.80	6.80	6.73	0.50	9563950
Dissolved Manganese (Mn)	ug/L	1280	9563950	0.179	23.3	0.172	0.050	9563950
Dissolved Molybdenum (Mo)	ug/L	0.669	9563950	3.00	3.10	2.98	0.050	9563950
Dissolved Nickel (Ni)	ug/L	0.301	9563950	0.035	1.19	0.027	0.020	9563950
Dissolved Phosphorus (P)	ug/L	5.8	9563950	8.1	6.6	7.6	2.0	9563950
Dissolved Selenium (Se)	ug/L	0.068	9574745	0.256	0.350	0.252	0.040	9563950
Dissolved Silicon (Si)	ug/L	11300	9563950	5570	5740	5720	50	9563950
Dissolved Silver (Ag)	ug/L	<0.0050	9563950	<0.0050	<0.0050	<0.0050	0.0050	9563950
Dissolved Strontium (Sr)	ug/L	80.6	9563950	353	433	347	0.050	9563950
Dissolved Thallium (Tl)	ug/L	<0.0020	9563950	0.0053	0.167	0.0082	0.0020	9563950
Dissolved Tin (Sn)	ug/L	<0.20	9563950	<0.20	<0.20	<0.20	0.20	9563950
Dissolved Titanium (Ti)	ug/L	<0.50	9563950	<0.50	<0.50	<0.50	0.50	9563950
Dissolved Uranium (U)	ug/L	2.36	9563950	42.3	66.7	41.1	0.0020	9563950
Dissolved Vanadium (V)	ug/L	0.56	9563950	0.38	0.32	0.39	0.20	9563950
RDL = Reportable Detection Limit								



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

LOW LEVEL DISSOLVED METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1604		WJ1605	WJ1606	WJ1607		
Sampling Date		2019/08/21 17:35		2019/08/22 14:40	2019/08/22 12:40	2019/08/22 16:00		
COC Number		591794-04-01		591794-04-01	591794-04-01	591794-04-01		
	UNITS	MW16-01WB	QC Batch	MW14-02A	MW14-02B	BD2-Q3	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	11.3	9563950	<0.10	0.17	<0.10	0.10	9563950
Dissolved Zirconium (Zr)	ug/L	<0.10	9563950	<0.10	<0.10	<0.10	0.10	9563950
Dissolved Calcium (Ca)	mg/L	21.6	9562653	39.2	48.7	38.8	0.050	9562653
Dissolved Magnesium (Mg)	mg/L	4.24	9562653	19.7	25.7	19.1	0.050	9562653
Dissolved Potassium (K)	mg/L	1.41	9562653	2.80	3.26	2.75	0.050	9562653
Dissolved Sodium (Na)	mg/L	7.01	9562653	2.71	2.95	2.67	0.050	9562653
Dissolved Sulphur (S)	mg/L	4.6	9562653	16.1	23.6	15.9	3.0	9562653
RDL = Reportable Detection Limit								

**LOW LEVEL DISSOLVED METALS WITH CV HG (GROUND WATER)**

BV Labs ID		WJ1608			WJ1609		WJ1610		
Sampling Date		2019/08/22 11:30			2019/08/22 16:00		2019/08/22 16:45		
COC Number		591794-04-01			591794-04-01		591794-04-01		
	UNITS	MW15-01WB	RDL	QC Batch	MW15-04WB	QC Batch	BD1-Q3	RDL	QC Batch

Calculated Parameters

Dissolved Hardness (CaCO3)	mg/L	1340	0.50	9562652	326	9562652	320	0.50	9562652
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Elements

Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9564712	<0.0020	9564712	0.0026	0.0020	9564712
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Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	ug/L	3.5	1.0	9563950	0.91	9563950	0.55	0.50	9563950
Dissolved Antimony (Sb)	ug/L	0.057	0.040	9563950	1.48	9563950	1.42	0.020	9563950
Dissolved Arsenic (As)	ug/L	10.9	0.040	9563950	1.38	9563950	1.14	0.020	9563950
Dissolved Barium (Ba)	ug/L	7.53	0.040	9563950	28.9	9563950	28.4	0.020	9563950
Dissolved Beryllium (Be)	ug/L	0.042	0.020	9563950	<0.010	9563950	<0.010	0.010	9563950
Dissolved Bismuth (Bi)	ug/L	<0.010	0.010	9563950	<0.0050	9563950	<0.0050	0.0050	9563950
Dissolved Boron (B)	ug/L	<20	20	9563950	<10	9563950	<10	10	9563950
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	9563950	0.0226	9563950	0.0095	0.0050	9563950
Dissolved Chromium (Cr)	ug/L	<0.20	0.20	9563950	0.19	9563950	<0.10	0.10	9563950
Dissolved Cobalt (Co)	ug/L	0.256	0.010	9563950	0.187	9563950	0.174	0.0050	9563950
Dissolved Copper (Cu)	ug/L	<0.10	0.10	9563950	1.17	9563950	0.766	0.050	9563950
Dissolved Iron (Fe)	ug/L	943	2.0	9563950	15.2	9563950	11.6	1.0	9563950
Dissolved Lead (Pb)	ug/L	<0.010	0.010	9563950	0.282	9563950	0.245	0.0050	9563950
Dissolved Lithium (Li)	ug/L	23.9	1.0	9563950	6.44	9563950	6.37	0.50	9563950
Dissolved Manganese (Mn)	ug/L	353	0.10	9563950	79.1	9563950	73.3	0.050	9563950
Dissolved Molybdenum (Mo)	ug/L	0.46	0.10	9563950	2.15	9563950	2.15	0.050	9563950
Dissolved Nickel (Ni)	ug/L	0.794	0.040	9563950	0.514	9563950	0.498	0.020	9563950
Dissolved Phosphorus (P)	ug/L	8.0	4.0	9563950	13.3	9574745	4.3	2.0	9563950
Dissolved Selenium (Se)	ug/L	<0.080	0.080	9574745	0.369	9574745	0.303	0.040	9563950
Dissolved Silicon (Si)	ug/L	7580	100	9563950	5750	9563950	5830	50	9563950
Dissolved Silver (Ag)	ug/L	<0.010	0.010	9563950	<0.0050	9563950	<0.0050	0.0050	9563950
Dissolved Strontium (Sr)	ug/L	2800	0.10	9563950	797	9563950	788	0.050	9563950
Dissolved Thallium (Tl)	ug/L	<0.0040	0.0040	9563950	0.0074	9563950	0.0084	0.0020	9563950
Dissolved Tin (Sn)	ug/L	<0.40	0.40	9563950	<0.20	9563950	<0.20	0.20	9563950
Dissolved Titanium (Ti)	ug/L	<1.0	1.0	9563950	<0.50	9563950	<0.50	0.50	9563950
Dissolved Uranium (U)	ug/L	532	0.0040	9563950	128	9563950	129	0.0020	9563950
Dissolved Vanadium (V)	ug/L	<0.40	0.40	9563950	0.34	9563950	<0.20	0.20	9563950

RDL = Reportable Detection Limit



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

LOW LEVEL DISSOLVED METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1608			WJ1609		WJ1610		
Sampling Date		2019/08/22 11:30			2019/08/22 16:00		2019/08/22 16:45		
COC Number		591794-04-01			591794-04-01		591794-04-01		
	UNITS	MW15-01WB	RDL	QC Batch	MW15-04WB	QC Batch	BD1-Q3	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	11.1 (1)	0.20	9563950	30.9	9574745	6.03	0.10	9563950
Dissolved Zirconium (Zr)	ug/L	1.01	0.20	9563950	0.21	9563950	0.18	0.10	9563950
Dissolved Calcium (Ca)	mg/L	249	0.10	9562653	72.0	9562653	70.3	0.050	9562653
Dissolved Magnesium (Mg)	mg/L	175	0.10	9562653	35.5	9562653	35.0	0.050	9562653
Dissolved Potassium (K)	mg/L	4.74	0.10	9562653	4.03	9562653	3.68	0.050	9562653
Dissolved Sodium (Na)	mg/L	24.6	0.10	9562653	5.92	9562653	5.70	0.050	9562653
Dissolved Sulphur (S)	mg/L	287	6.0	9562653	39.0	9562653	40.0	3.0	9562653

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

LOW LEVEL DISSOLVED METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1610		
Sampling Date		2019/08/22 16:45		
COC Number		591794-04-01		
	UNITS	BD1-Q3 Lab-Dup	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	ug/L	0.55	0.50	9563950
Dissolved Antimony (Sb)	ug/L	1.42	0.020	9563950
Dissolved Arsenic (As)	ug/L	1.14	0.020	9563950
Dissolved Barium (Ba)	ug/L	28.4	0.020	9563950
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9563950
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9563950
Dissolved Boron (B)	ug/L	<10	10	9563950
Dissolved Cadmium (Cd)	ug/L	0.0114	0.0050	9563950
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9563950
Dissolved Cobalt (Co)	ug/L	0.171	0.0050	9563950
Dissolved Copper (Cu)	ug/L	0.758	0.050	9563950
Dissolved Iron (Fe)	ug/L	11.9	1.0	9563950
Dissolved Lead (Pb)	ug/L	0.243	0.0050	9563950
Dissolved Lithium (Li)	ug/L	6.46	0.50	9563950
Dissolved Manganese (Mn)	ug/L	72.6	0.050	9563950
Dissolved Molybdenum (Mo)	ug/L	2.16	0.050	9563950
Dissolved Nickel (Ni)	ug/L	0.484	0.020	9563950
Dissolved Phosphorus (P)	ug/L	3.1	2.0	9563950
Dissolved Selenium (Se)	ug/L	0.314	0.040	9563950
Dissolved Silicon (Si)	ug/L	5780	50	9563950
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9563950
Dissolved Strontium (Sr)	ug/L	778	0.050	9563950
Dissolved Thallium (Tl)	ug/L	0.0081	0.0020	9563950
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9563950
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9563950
Dissolved Uranium (U)	ug/L	129	0.0020	9563950
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9563950
Dissolved Zinc (Zn)	ug/L	5.98	0.10	9563950
Dissolved Zirconium (Zr)	ug/L	0.18	0.10	9563950
RDL = Reportable Detection Limit				
Lab-Dup = Laboratory Initiated Duplicate				



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

LOW LEVEL TOTAL METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1604	WJ1605	WJ1606	WJ1607		WJ1608		
Sampling Date		2019/08/21 17:35	2019/08/22 14:40	2019/08/22 12:40	2019/08/22 16:00		2019/08/22 11:30		
COC Number		591794-04-01	591794-04-01	591794-04-01	591794-04-01		591794-04-01		
	UNITS	MW16-01WB	MW14-02A	MW14-02B	BD2-Q3	RDL	MW15-01WB	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO ₃)	mg/L	68.0	178	230	175	0.50	1340	0.50	9562651
Elements									
Total Mercury (Hg)	ug/L	<0.0020	0.0098	0.0045	0.0109	0.0020	<0.0020	0.0020	9564573
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	24.1	23.3	0.92	20.1	0.50	3.1	1.0	9564393
Total Antimony (Sb)	ug/L	0.057	0.678	4.68	0.670	0.020	<0.040	0.040	9564393
Total Arsenic (As)	ug/L	10.7	57.9	37.1	57.2	0.020	12.1	0.040	9564393
Total Barium (Ba)	ug/L	18.9	10.0	28.4	9.84	0.020	7.41	0.040	9564393
Total Beryllium (Be)	ug/L	0.098	<0.010	<0.010	<0.010	0.010	0.041	0.020	9564393
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	<0.010	0.010	9564393
Total Boron (B)	ug/L	<10	<10	<10	<10	10	<20	20	9564393
Total Cadmium (Cd)	ug/L	0.0058	<0.0050	<0.0050	<0.0050	0.0050	<0.010	0.010	9564393
Total Chromium (Cr)	ug/L	1.45	0.61	0.50	0.61	0.10	<0.20	0.20	9564393
Total Cobalt (Co)	ug/L	0.0581	0.0624	0.0636	0.0558	0.0050	0.267	0.010	9564393
Total Copper (Cu)	ug/L	1.28	0.066	<0.050	<0.050	0.050	<0.10	0.10	9564393
Total Iron (Fe)	ug/L	6190	33.5	<1.0	28.2	1.0	967	2.0	9564393
Total Lead (Pb)	ug/L	0.0738	0.0743	<0.0050	0.0521	0.0050	0.045	0.010	9564393
Total Lithium (Li)	ug/L	14.6	6.86	6.92	6.80	0.50	23.8	1.0	9564393
Total Manganese (Mn)	ug/L	1230	3.87	23.1	2.55	0.050	353	0.10	9564393
Total Molybdenum (Mo)	ug/L	0.822	3.05	3.11	3.03	0.050	0.44	0.10	9564393
Total Nickel (Ni)	ug/L	1.61	0.187	1.20	0.189	0.020	0.616	0.040	9564393
Total Phosphorus (P)	ug/L	14.1	8.8	6.4	7.7	2.0	6.2	4.0	9564393
Total Selenium (Se)	ug/L	0.222	0.246	0.338	0.259	0.040	<0.080	0.080	9564393
Total Silicon (Si)	ug/L	11800	5720	5790	5810	50	7640	100	9564393
Total Silver (Ag)	ug/L	<0.0050	0.104	<0.0050	0.0745	0.0050	<0.010	0.010	9564393
Total Strontium (Sr)	ug/L	80.1	355	445	352	0.050	2890	0.10	9564393
Total Thallium (Tl)	ug/L	<0.0020	0.0155	0.172	0.0108	0.0020	0.0059	0.0040	9564393
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	<0.40	0.40	9564393
Total Titanium (Ti)	ug/L	1.12	<0.50	<0.50	<0.50	0.50	<1.0	1.0	9564393
Total Uranium (U)	ug/L	2.44	41.8	68.5	42.2	0.0020	529	0.0040	9564393
Total Vanadium (V)	ug/L	0.85	0.52	0.33	0.44	0.20	<0.40	0.40	9564393
RDL = Reportable Detection Limit									



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VERITAS

BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

LOW LEVEL TOTAL METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1604	WJ1605	WJ1606	WJ1607		WJ1608		
Sampling Date		2019/08/21 17:35	2019/08/22 14:40	2019/08/22 12:40	2019/08/22 16:00		2019/08/22 11:30		
COC Number		591794-04-01	591794-04-01	591794-04-01	591794-04-01		591794-04-01		
	UNITS	MW16-01WB	MW14-02A	MW14-02B	BD2-Q3	RDL	MW15-01WB	RDL	QC Batch
Total Zinc (Zn)	ug/L	150	0.22	0.14	<0.10	0.10	4.11	0.20	9564393
Total Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1.10	0.20	9564393
Total Calcium (Ca)	mg/L	20.8	39.3	49.5	38.8	0.050	249	0.10	9562654
Total Magnesium (Mg)	mg/L	3.88	19.3	25.9	18.9	0.050	174	0.10	9562654
Total Potassium (K)	mg/L	1.03	2.76	3.26	2.72	0.050	4.61	0.10	9562654
Total Sodium (Na)	mg/L	6.47	2.60	2.85	2.58	0.050	24.4	0.10	9562654
Total Sulphur (S)	mg/L	4.5	16.2	23.2	16.3	3.0	289	6.0	9562654
RDL = Reportable Detection Limit									



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VERITAS

BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

LOW LEVEL TOTAL METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1609	WJ1610			WJ1610		
Sampling Date		2019/08/22 16:00	2019/08/22 16:45			2019/08/22 16:45		
COC Number		591794-04-01	591794-04-01			591794-04-01		
	UNITS	MW15-04WB	BD1-Q3	RDL	QC Batch	BD1-Q3 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO ₃)	mg/L	321	326	0.50	9562651			
Elements								
Total Mercury (Hg)	ug/L	0.0031	0.0021	0.0020	9564573			
Total Metals by ICPMS								
Total Aluminum (Al)	ug/L	2.07	3.53	0.50	9564393	2.99	0.50	9564393
Total Antimony (Sb)	ug/L	1.33	1.45	0.020	9564393	1.42	0.020	9564393
Total Arsenic (As)	ug/L	1.21	1.28	0.020	9564393	1.30	0.020	9564393
Total Barium (Ba)	ug/L	27.5	28.3	0.020	9564393	28.4	0.020	9564393
Total Beryllium (Be)	ug/L	<0.010	<0.010	0.010	9564393	<0.010	0.010	9564393
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	9564393	<0.0050	0.0050	9564393
Total Boron (B)	ug/L	<10	<10	10	9564393	<10	10	9564393
Total Cadmium (Cd)	ug/L	0.0152	0.0246	0.0050	9564393	0.0252	0.0050	9564393
Total Chromium (Cr)	ug/L	1.44	0.68	0.10	9564393	0.69	0.10	9564393
Total Cobalt (Co)	ug/L	0.199	0.196	0.0050	9564393	0.198	0.0050	9564393
Total Copper (Cu)	ug/L	0.962	0.978	0.050	9564393	0.968	0.050	9564393
Total Iron (Fe)	ug/L	24.6	27.4	1.0	9564393	27.9	1.0	9564393
Total Lead (Pb)	ug/L	0.358	0.422	0.0050	9564393	0.422	0.0050	9564393
Total Lithium (Li)	ug/L	6.28	6.51	0.50	9564393	6.47	0.50	9564393
Total Manganese (Mn)	ug/L	73.8	81.4	0.050	9564393	80.6	0.050	9564393
Total Molybdenum (Mo)	ug/L	2.31	2.27	0.050	9564393	2.22	0.050	9564393
Total Nickel (Ni)	ug/L	1.53	1.08	0.020	9564393	1.07	0.020	9564393
Total Phosphorus (P)	ug/L	4.1	14.6	2.0	9564393	14.7	2.0	9564393
Total Selenium (Se)	ug/L	0.286	1.01	0.040	9564393	0.924	0.040	9564393
Total Silicon (Si)	ug/L	5700	6010	50	9564393	5930	50	9564393
Total Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9564393	<0.0050	0.0050	9564393
Total Strontium (Sr)	ug/L	797	808	0.050	9564393	810	0.050	9564393
Total Thallium (Tl)	ug/L	0.0074	0.0073	0.0020	9564393	0.0068	0.0020	9564393
Total Tin (Sn)	ug/L	<0.20	<0.20	0.20	9564393	<0.20	0.20	9564393
Total Titanium (Ti)	ug/L	0.50	<0.50	0.50	9564393	<0.50	0.50	9564393
Total Uranium (U)	ug/L	127	127	0.0020	9564393	130	0.0020	9564393
Total Vanadium (V)	ug/L	0.35	<0.20	0.20	9564393	<0.20	0.20	9564393
RDL = Reportable Detection Limit								
Lab-Dup = Laboratory Initiated Duplicate								



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VERITAS

BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

LOW LEVEL TOTAL METALS WITH CV HG (GROUND WATER)

BV Labs ID		WJ1609	WJ1610			WJ1610		
Sampling Date		2019/08/22 16:00	2019/08/22 16:45			2019/08/22 16:45		
COC Number		591794-04-01	591794-04-01			591794-04-01		
	UNITS	MW15-04WB	BD1-Q3	RDL	QC Batch	BD1-Q3 Lab-Dup	RDL	QC Batch
Total Zinc (Zn)	ug/L	6.98	51.3	0.10	9564393	50.6	0.10	9564393
Total Zirconium (Zr)	ug/L	0.21	0.23	0.10	9564393	0.24	0.10	9564393
Total Calcium (Ca)	mg/L	71.2	72.5	0.050	9562654			
Total Magnesium (Mg)	mg/L	34.7	35.3	0.050	9562654			
Total Potassium (K)	mg/L	3.72	3.95	0.050	9562654			
Total Sodium (Na)	mg/L	5.65	5.92	0.050	9562654			
Total Sulphur (S)	mg/L	38.2	41.2	3.0	9562654			
RDL = Reportable Detection Limit								
Lab-Dup = Laboratory Initiated Duplicate								



GENERAL COMMENTS

Sample WJ1604 [MW16-01WB] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample WJ1605 [MW14-02A] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample WJ1606 [MW14-02B] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample WJ1607 [BD2-Q3] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample WJ1608 [MW15-01WB] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Dissolved Nitrogen is greater than total Nitrogen, reanalysis yields similar results.

Sample WJ1609 [MW15-04WB] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample WJ1610 [BD1-Q3] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

LOW LEVEL DISSOLVED METALS WITH CV HG (GROUND WATER) Comments

Sample WJ1608 [MW15-01WB] Elements by ICPMS Low Level (dissolved): RDL raised due to concentration over linear range, sample dilution required.

Sample WJ1608 [MW15-01WB] Elements by ICPMS Low Level (dissolved): RDL raised due to concentration over linear range, sample dilution required.

LOW LEVEL TOTAL METALS WITH CV HG (GROUND WATER) Comments

Sample WJ1608 [MW15-01WB] Elements by ICPMS Low Level (total): RDL raised due to concentration over linear range, sample dilution required.

Sample WJ1604, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample WJ1608, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample WJ1609, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



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VERITAS

BV Labs Job #: B970851

Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB



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VERITAS

BV Labs Job #: B970851

Report Date: 2019/09/09

QUALITY ASSURANCE REPORT

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9563950	Dissolved Aluminum (Al)	2019/08/27	97	80 - 120	102	80 - 120	<0.50	ug/L	0.29	20		
9563950	Dissolved Antimony (Sb)	2019/08/27	101	80 - 120	105	80 - 120	<0.020	ug/L	0.38	20		
9563950	Dissolved Arsenic (As)	2019/08/27	101	80 - 120	100	80 - 120	<0.020	ug/L	0.69	20		
9563950	Dissolved Barium (Ba)	2019/08/27	96	80 - 120	102	80 - 120	<0.020	ug/L	0.079	20		
9563950	Dissolved Beryllium (Be)	2019/08/27	94	80 - 120	101	80 - 120	<0.010	ug/L	NC	20		
9563950	Dissolved Bismuth (Bi)	2019/08/27	99	80 - 120	105	80 - 120	<0.0050	ug/L	NC	20		
9563950	Dissolved Boron (B)	2019/08/27	92	80 - 120	99	80 - 120	<10	ug/L	NC	20		
9563950	Dissolved Cadmium (Cd)	2019/08/27	99	80 - 120	105	80 - 120	<0.0050	ug/L	18	20		
9563950	Dissolved Chromium (Cr)	2019/08/27	99	80 - 120	101	80 - 120	<0.10	ug/L	NC	20		
9563950	Dissolved Cobalt (Co)	2019/08/27	96	80 - 120	101	80 - 120	<0.0050	ug/L	2.1	20		
9563950	Dissolved Copper (Cu)	2019/08/27	93	80 - 120	101	80 - 120	<0.050	ug/L	0.96	20		
9563950	Dissolved Iron (Fe)	2019/08/27	113	80 - 120	105	80 - 120	<1.0	ug/L	2.8	20		
9563950	Dissolved Lead (Pb)	2019/08/27	101	80 - 120	106	80 - 120	<0.0050	ug/L	0.70	20		
9563950	Dissolved Lithium (Li)	2019/08/27	94	80 - 120	101	80 - 120	<0.50	ug/L	1.3	20		
9563950	Dissolved Manganese (Mn)	2019/08/27	NC	80 - 120	102	80 - 120	<0.050	ug/L	0.93	20		
9563950	Dissolved Molybdenum (Mo)	2019/08/27	106	80 - 120	106	80 - 120	<0.050	ug/L	0.26	20		
9563950	Dissolved Nickel (Ni)	2019/08/27	94	80 - 120	101	80 - 120	<0.020	ug/L	2.9	20		
9563950	Dissolved Phosphorus (P)	2019/08/27	106	80 - 120	104	80 - 120	<2.0	ug/L	NC	20		
9563950	Dissolved Selenium (Se)	2019/08/27	113	80 - 120	101	80 - 120	<0.040	ug/L	3.6	20		
9563950	Dissolved Silicon (Si)	2019/08/27	NC	80 - 120	101	80 - 120	<50	ug/L	0.89	20		
9563950	Dissolved Silver (Ag)	2019/08/27	98	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20		
9563950	Dissolved Strontium (Sr)	2019/08/27	NC	80 - 120	101	80 - 120	<0.050	ug/L	1.3	20		
9563950	Dissolved Thallium (Tl)	2019/08/27	103	80 - 120	105	80 - 120	<0.0020	ug/L	3.6	20		
9563950	Dissolved Tin (Sn)	2019/08/27	102	80 - 120	105	80 - 120	<0.20	ug/L	NC	20		
9563950	Dissolved Titanium (Ti)	2019/08/27	101	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
9563950	Dissolved Uranium (U)	2019/08/27	NC	80 - 120	103	80 - 120	<0.0020	ug/L	0.13	20		
9563950	Dissolved Vanadium (V)	2019/08/27	101	80 - 120	103	80 - 120	<0.20	ug/L	NC	20		
9563950	Dissolved Zinc (Zn)	2019/08/27	95	80 - 120	106	80 - 120	<0.10	ug/L	0.72	20		
9563950	Dissolved Zirconium (Zr)	2019/08/27	107	80 - 120	101	80 - 120	<0.10	ug/L	0.88	20		
9564303	Fluoride (F)	2019/08/27	99	80 - 120	102	80 - 120	<0.010	mg/L	1.9	20		
9564393	Total Aluminum (Al)	2019/08/27	98	80 - 120	100	80 - 120	<0.50	ug/L	16	20		
9564393	Total Antimony (Sb)	2019/08/27	100	80 - 120	102	80 - 120	<0.020	ug/L	1.8	20		



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BV Labs Job #: B970851

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QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9564393	Total Arsenic (As)	2019/08/27	104	80 - 120	100	80 - 120	<0.020	ug/L	1.1	20		
9564393	Total Barium (Ba)	2019/08/27	97	80 - 120	102	80 - 120	<0.020	ug/L	0.65	20		
9564393	Total Beryllium (Be)	2019/08/27	93	80 - 120	98	80 - 120	<0.010	ug/L	NC	20		
9564393	Total Bismuth (Bi)	2019/08/27	97	80 - 120	105	80 - 120	<0.0050	ug/L	NC	20		
9564393	Total Boron (B)	2019/08/27	92	80 - 120	95	80 - 120	<10	ug/L	NC	20		
9564393	Total Cadmium (Cd)	2019/08/27	98	80 - 120	103	80 - 120	<0.0050	ug/L	2.4	20		
9564393	Total Chromium (Cr)	2019/08/27	95	80 - 120	99	80 - 120	<0.10	ug/L	1.7	20		
9564393	Total Cobalt (Co)	2019/08/27	92	80 - 120	99	80 - 120	<0.0050	ug/L	1.1	20		
9564393	Total Copper (Cu)	2019/08/27	89	80 - 120	98	80 - 120	<0.050	ug/L	1.1	20		
9564393	Total Iron (Fe)	2019/08/27	97	80 - 120	103	80 - 120	<1.0	ug/L	1.7	20		
9564393	Total Lead (Pb)	2019/08/27	100	80 - 120	105	80 - 120	<0.0050	ug/L	0.14	20		
9564393	Total Lithium (Li)	2019/08/27	95	80 - 120	102	80 - 120	<0.50	ug/L	0.56	20		
9564393	Total Manganese (Mn)	2019/08/27	NC	80 - 120	102	80 - 120	<0.050	ug/L	0.99	20		
9564393	Total Molybdenum (Mo)	2019/08/27	107	80 - 120	103	80 - 120	<0.050	ug/L	2.2	20		
9564393	Total Nickel (Ni)	2019/08/27	90	80 - 120	99	80 - 120	<0.020	ug/L	0.71	20		
9564393	Total Phosphorus (P)	2019/08/27	107	80 - 120	103	80 - 120	<2.0	ug/L	0.84	20		
9564393	Total Selenium (Se)	2019/08/27	96	80 - 120	102	80 - 120	<0.040	ug/L	9.2	20		
9564393	Total Silicon (Si)	2019/08/27	NC	80 - 120	101	80 - 120	<50	ug/L	1.3	20		
9564393	Total Silver (Ag)	2019/08/27	98	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20		
9564393	Total Strontium (Sr)	2019/08/27	NC	80 - 120	103	80 - 120	<0.050	ug/L	0.24	20		
9564393	Total Thallium (Tl)	2019/08/27	102	80 - 120	106	80 - 120	<0.0020	ug/L	7.1	20		
9564393	Total Tin (Sn)	2019/08/27	101	80 - 120	104	80 - 120	<0.20	ug/L	NC	20		
9564393	Total Titanium (Ti)	2019/08/27	100	80 - 120	103	80 - 120	<0.50	ug/L	NC	20		
9564393	Total Uranium (U)	2019/08/27	NC	80 - 120	103	80 - 120	<0.0020	ug/L	1.9	20		
9564393	Total Vanadium (V)	2019/08/27	98	80 - 120	101	80 - 120	<0.20	ug/L	NC	20		
9564393	Total Zinc (Zn)	2019/08/27	NC	80 - 120	104	80 - 120	<0.10	ug/L	1.3	20		
9564393	Total Zirconium (Zr)	2019/08/27	105	80 - 120	104	80 - 120	<0.10	ug/L	4.1	20		
9564498	Total Nitrogen (N)	2019/08/27	NC	80 - 120	100	80 - 120	<0.020	mg/L	0.68	20		
9564501	Dissolved Nitrogen (N)	2019/08/27			100	80 - 120	<0.020	mg/L				
9564573	Total Mercury (Hg)	2019/08/27	86	80 - 120	108	80 - 120	<0.0020	ug/L	NC	20		
9564712	Dissolved Mercury (Hg)	2019/08/27	97	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20		
9565005	Alkalinity (PP as CaCO3)	2019/08/27					<0.50	mg/L	NC	20		



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QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9565005	Alkalinity (Total as CaCO ₃)	2019/08/27	NC	80 - 120	92	80 - 120	<0.50	mg/L	0.091	20		
9565005	Bicarbonate (HCO ₃)	2019/08/27					<0.50	mg/L	0.091	20		
9565005	Carbonate (CO ₃)	2019/08/27					<0.50	mg/L	NC	20		
9565005	Hydroxide (OH)	2019/08/27					<0.50	mg/L	NC	20		
9565009	pH	2019/08/27			101	97 - 103			0.88	N/A		
9565011	Conductivity	2019/08/27			100	80 - 120	<1.0	uS/cm	1.4	20		
9565068	Turbidity	2019/08/27			101	80 - 120	<0.10	NTU	NC	20		
9565412	Nitrate plus Nitrite (N)	2019/08/27	99	80 - 120	108	80 - 120	<0.0020	mg/L	4.0	25		
9565415	Nitrite (N)	2019/08/27	94	80 - 120	99	80 - 120	<0.0020	mg/L	0	25		
9566278	Total Dissolved Solids	2019/08/31	104	80 - 120	93	80 - 120	<10	mg/L	10	20		
9566409	Dissolved Sulphide	2019/08/28	108	80 - 120	108	80 - 120	<0.0018	mg/L	4.9	20		
9566439	Total Ammonia (N)	2019/08/28	96	80 - 120	102	80 - 120	<0.0050	mg/L	9.2	20		
9566891	Total Suspended Solids	2019/08/28	106	80 - 120	103	80 - 120	<1.0	mg/L	0.64	20		
9567221	Dissolved Chloride (Cl)	2019/08/28	90	80 - 120	103	80 - 120	<0.50	mg/L	18	20		
9567221	Dissolved Sulphate (SO ₄)	2019/08/28	NC	80 - 120	100	80 - 120	<0.50	mg/L	1.4	20		
9567496	Total Organic Carbon (C)	2019/08/29	99	80 - 120	109	80 - 120	<0.50	mg/L	0.43	20		
9567502	Dissolved Organic Carbon (C)	2019/08/29	103	80 - 120	109	80 - 120	<0.50	mg/L	0.58	20		
9568416	Dissolved Bromide (Br)	2019/08/29	102	80 - 120	102	80 - 120	<0.010	mg/L	NC	20		
9569207	Dissolved Chloride (Cl)	2019/08/29	101	80 - 120	104	80 - 120	<0.50	mg/L	NC	20		
9569207	Dissolved Sulphate (SO ₄)	2019/08/29	108	80 - 120	98	80 - 120	<0.50	mg/L	NC	20		
9569792	Dissolved Phosphorus (P)	2019/09/03	20 (1)	80 - 120	94	80 - 120	<0.0030	mg/L	15	20	85	80 - 120
9569795	Total Phosphorus (P)	2019/09/03	NC	80 - 120	97	80 - 120	<0.0030	mg/L	1.0	20	91	80 - 120
9574745	Dissolved Phosphorus (P)	2019/09/04			97	80 - 120	<2.0	ug/L				
9574745	Dissolved Selenium (Se)	2019/09/04			101	80 - 120	<0.040	ug/L				



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BV Labs Job #: B970851

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QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: A362-4

Site Location: COFFEE CREEK - GROUND WATER

Sampler Initials: CB

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9574745	Dissolved Zinc (Zn)	2019/09/04			101	80 - 120	<0.10	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



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BV Labs Job #: B970851
Report Date: 2019/09/09

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: A362-4
Site Location: COFFEE CREEK - GROUND WATER
Sampler Initials: CB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Harry (Peng) Liang, Senior Analyst

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

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Bureau Veritas Laboratories
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel: (604) 734 7278 Toll-free 800-563-6266 Fax: (604) 731 2386 www.bvlab.com

INVOICE TO:		Report Information		Project Information	
Company Name	#3604 LORAX ENVIRONMENTAL SERVICES LTD.	Company Name		Quotation #	B40231
Contact Name	Chris Bourque	Contact Name	Jordi Helsen	P.O. #	
Address	2289 BURRARD STREET VANCOUVER BC V6J 3H9	Address		Project #	A362-4
Phone	(604) 688-7173	Phone		Project Name	<i>Colfax Creek</i>
Fax	(604) 688-7175	Fax		Site #	
Email	Chris.Bourque@lorax.ca	Email	Chris.Bourque@lorax.ca; jordi.helsen@lorax.ca	Sampled By	<i>LIB + AS + AT + CT</i>

Regulatory Criteria

Special Instructions

Analysis Requested

Bottle Order #:

B970851_COC

591794

Project Manager

Customer Solutions

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

Samples must be kept cool (< 10°C) from time of sampling until delivery to BV Labs

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____

Rush Confirmation Number _____ (call lab for #)

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y/N)	Metals Field Filtered ? (Y/N)	Low Level Dissolved Metals with CV Hg	Low Level Total Metals with CV Hg	Total Suspended Solids-Low Level	Ammonia-N (Preserved)	Sulphide - Dissolved	Carbon (DOC), Phosphorus (Diss.), Nitrogen (Diss., DKN)	Carbon (Total Organic), Phosphorus (Total), Nitrogen (Total, TKN)	Alk. Cl-LL, EC, F, N-N-LL, Br, pH, o-PO4, SO4-LL, TDS, Turb	# of Bottles	Comments
1	MW16-01WB	21 Aug 19	17:35	W	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
2	MW14-02A	22 Aug 19	14:40	W	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
3	MW14-02B	22 Aug 19	12:40	W	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
4	BD2-Q3	22 Aug 19	16:00	W	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
5	MW15-01WB	22-Aug-19	11:30	GW	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
6	MW15-04WB	22-Aug-19	16:00	GW	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
7	BD1-Q3	22-Aug-19	16:45	GW	NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	
8																
9																
10																

RELINQUISHED BY: (Signature/Print)

Chris Bourque

Date: (YY/MM/DD)

19/08/23

Time

7:00

RECEIVED BY: (Signature/Print)

ARADETUMORE A.

Date: (YY/MM/DD)

20/08/26

Time

14:05

Jars used and not submitted

0

Lab Use Only

Time Sensitive ☐

Temperature (°C) on Receipt: 7.5, 13

Custody Seal Intact on Cooler? ☐ Yes ☒ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: BV Labs Yellow: Client

1063

16:468

Appendix D: Geotechnical Data

	BH-GT-14	BH-GT-14	BH-GT-63	BH-GT-63	GT-17-10	GT-17-10	GT-17-26	GT-17-26	GT-17-28	GT-17-28	GT-17-34
Date	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11
Time	12:04	12:36	11:33	9:57	11:47	9:41	10:47	10:20	11:29	10:05	9:02
Photo taken	N	N	N	N	N	N	N	N	N	N	N
Units	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius
Bead											
1	9.90	9.01	10.68	6.25	6.43	4.66	5.10	3.75	3.76	3.23	0.24
2	4.73	4.03	5.62	3.68	4.84	3.36	2.60	2.40	1.39	1.06	-0.23
3	2.45	2.07	2.39	1.76	-16.63	-19.30	1.29	1.79	0.16	0.32	-0.45
4	0.63	0.69	-0.17	-0.05	2.62	1.63	0.80	1.03	-0.38	-0.51	-0.71
5	-0.28	-0.06	-0.51	-0.41	2.31	1.02	0.84	0.87	-2.46	-1.16	-0.96
6	-0.58	-0.45	-0.81	-0.69	1.99	0.79	1.00	0.76	-1.32	-1.18	-1.04
7	-0.70	-0.61	-1.04	-0.92	1.39	0.76	-0.12	0.66	-1.48	-1.29	-1.13
8	-0.88	-0.81	-1.28	-1.15	-0.36	0.08	0.04	0.05	-9.34	-2.25	-1.18
9	-0.99	-1.06	-1.54	-5.89	-0.58	-0.44	-0.08	-0.04	-1.77	-1.62	-1.14
10	-1.05	-1.03	-1.63	-1.54	-0.66	-0.57	0.01	0.03	-1.71	-1.62	-1.06
11	-1.03	-1.01	-1.66	-1.59	-0.64	-0.60	-0.02	0.02	-1.69	-1.62	-0.97
12	-1.08	-1.06	-1.66	-1.62	-0.63	-0.61	0.00	0.03	-1.67	-1.60	-1.15
13	-1.03	-1.02	-1.59	-1.57	-0.92	-0.63	-0.04	0.01	-1.67	-1.61	-0.77
14	-1.06	-1.04	-1.52	-1.54	-0.61	-0.62	-0.02	0.01	-9.14	-9.84	-0.66
15	-1.03	-1.03	-1.47	-1.48	-0.50	-0.50	-0.04	-0.01	-1.59	-1.56	-0.60
16	-1.06	-1.05	-1.37	-1.41	-0.45	-0.46	0.12	-0.12	-1.64	-1.58	-0.46
NOTES			Bead #9 a was high, tried to unplug and restart the readout box. Same results	Bead #3 acting up. Restarted, still same.	Bead #3 a was high, tried to unplug and restart the readout box. Same results			Beads #8 and #14 had weird numbers. Resetting did not change anything.	Bead #14 a was high, tried to unplug and restart the readout box. Same results		

	GT-17-34	GT-17-36	GT-17-36	GT-17-37	GT-17-37	GT-17-39	GT-17-39	SRK-AP-18-01	SRK-AP-18-01	SRK-AP-18-05	SRK-AP-18-05
Date	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31
Time	12:20	9:24	12:20	9:12	12:15	11:00	10:36	10:00	11:56	10:05	12:02
Photo taken	N	N	N	N	N	N	N	N	N	N	N
Units	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius
Bead											
1	0.34	7.59	5.22	-0.33	-0.28	7.20	3.66	10.35	11.74	0.23	1.04
2	-0.15	5.77	3.76	-0.43	-0.38	-0.03	0.36	10.56	11.98	-1.57	-1.29
3	-0.35	4.69	2.86	-0.47	-0.43	-0.33	-0.27	10.28	11.50	-1.66	-1.39
4	-0.59	3.30	1.54	-0.46	-0.43	-0.58	-0.45	9.61	9.14	-	-
5	-0.84	-0.06	-0.18	-0.43	-0.40	-0.55	-0.46	8.15	5.84	-1.99	-1.73
6	-0.92	-0.66	-0.34	-0.33	-0.30	-0.44	-0.38	5.34	3.96	-2.06	-1.82
7	-1.02	-1.18	-0.92	-0.37	-0.35	-0.37	-0.31	2.19	2.03	-2.10	-1.89
8	-1.09	-1.62	-1.38	-0.30	-0.31	-0.21	-0.15	-0.05	-0.02	-2.03	-1.85
9	-1.07	-2.11	-1.85	-0.29	-0.28	0.15	0.20	0.20	0.58	-1.89	-1.79
10	-1.03	-2.29	-2.11	-0.28	-0.27	0.54	0.48	0.27	0.70	-1.76	-1.70
11	-0.96	-2.40	-2.26	-0.29	-0.29	0.86	0.78	0.26	0.66	-1.52	-1.50
12	-0.94	-2.42	-2.35	-0.21	-0.21	0.96	0.88	0.30	0.69	-1.29	-1.29
13	-0.78	-2.42	-2.39	-0.23	-0.64	1.02	0.96	0.24	0.64	-1.11	-1.11
14	-0.66	-2.32	-2.33	-0.24	-0.24	1.04	0.97	0.20	0.54	-0.99	-1.00
15	-0.60	-2.20	-2.24	-0.19	-0.19	0.98	0.90	0.22	0.51	-0.85	-0.86
16	-0.46	-1.94	-1.98	-0.15	-0.15	0.88	0.73	0.21	0.36	-0.70	-0.70
NOTES									Bead #4 not recording	Bead #4 not recording	

[illegible]

	TT-18-03	TT-18-03	TT-18-05	TT-18-05	SRK-KP-18-03	SRK-KP-18-03
Date	2019-08-11	2019-08-31	2019-08-11	2019-08-31	2019-08-11	2019-08-31
Time	10:23	11:16	10:32	10:53	11:40	9:50
Photo taken	N	N	N	N	N	N
Units	Celsius	Celsius	Celsius	Celsius	Celsius	Celsius
Bead						
1	4.80	3.61	1.74	2.46	0.71	1.18
2	-0.03	0.37	-0.38	-0.30	-0.92	-0.78
3	-0.20	-0.10	-0.49	-0.42	-1.13	-0.99
4	-0.31	-0.20	-0.62	-0.55	-1.28	-1.14
5	-0.36	-0.27	-0.73	-0.65	-1.46	-1.31
6	-0.39	-0.33	-0.71	-0.65	-1.58	-1.45
7	-0.42	-0.37	-0.81	-0.74	-1.63	-1.51
8	-0.51	-0.46	-0.78	-0.73	-1.65	-1.54
9	-0.50	-0.75	-0.77	-0.75	-	-
10	-0.51	-0.48	-0.65	-0.65	-1.63	-1.59
11	-0.48	-0.45	-0.57	-0.55	-1.47	-1.45
12	-0.48	-0.45	-0.48	-0.46	-1.48	-1.47
13	-0.46	-0.43	-0.50	-0.48	-1.33	-1.33
14	-0.43	-0.40	-0.42	-0.40	-1.27	-1.27
15	-0.36	-0.32	-0.36	-0.34	-1.29	-1.30
16	-0.38	-0.36	-0.30	-0.29	-1.17	-1.18
NOTES	Might've been a mistake on Bead #9, looks a bit off			Bead #9 not recording	Bead #9 not recording	

Appendix E: 2019 Halfway Creek Placer group Statement of Expenditures

2019 Statement of Expenditures Halfway Placer Group GW01333

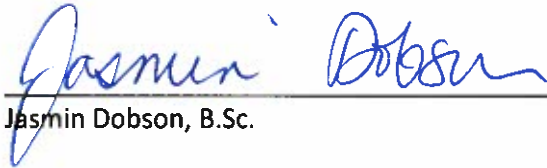
2019 Halfway Placer Group Baseline Environmental Expenditures	Cost
Groundwater Field Program	\$ 6,828.89
Groundwater Analytical	\$ 1,012.57
Ground Water Program Helicopter	\$ 2,440.00
Surface Water Quality Field Program	\$ 1,920.00
Surface Water Quality Analytical	\$ 2,025.60
Surface Water Quality Field Program Helicopter	\$ 4,880.00
Thermistor Field Program	\$ 280.00
Thermistor Helicopter	\$ 1,220.00
Aquatic Resources Field Program	\$ 4,275.00
Aquatic Resources Analytical	\$ 7,100.00
Aquatic Resources Helicopter	\$ 915.00
Halfway Placer Group Environmental Report	\$ 2,520.00
2019 Expenditures Total	\$ 35,417.06

Appendix F: Statement of Qualification for the Author

I, Jasmin Dobson, of 80a Lazulite Dr, Whitehorse, YT, Y1A-6G7, DO HEREBY CERTIFY THAT:

1. I am Environmental Superintendent for the Coffee Project with current address at 80a Lazulite Dr, Whitehorse, YT, Y1A-6G7, Canada.
2. I am a graduate of Royal Roads University (2010, B.Sc., Environmental Science).
3. I have practiced my Profession as an Environmental Specialist continuously since 2010.

Dated this 25th day of September 2019.



Jasmin Dobson, B.Sc.