



Coffee Exploration Project

2020 Environmental Placer Report: Halfway Placer Group

FINAL

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Prepared by:
Goldcorp Kaminak Ltd.
A subsidiary of Newmont Corp.
166 Titanium Way, Suite 201
Whitehorse YT, Canada, Y1A 0G1

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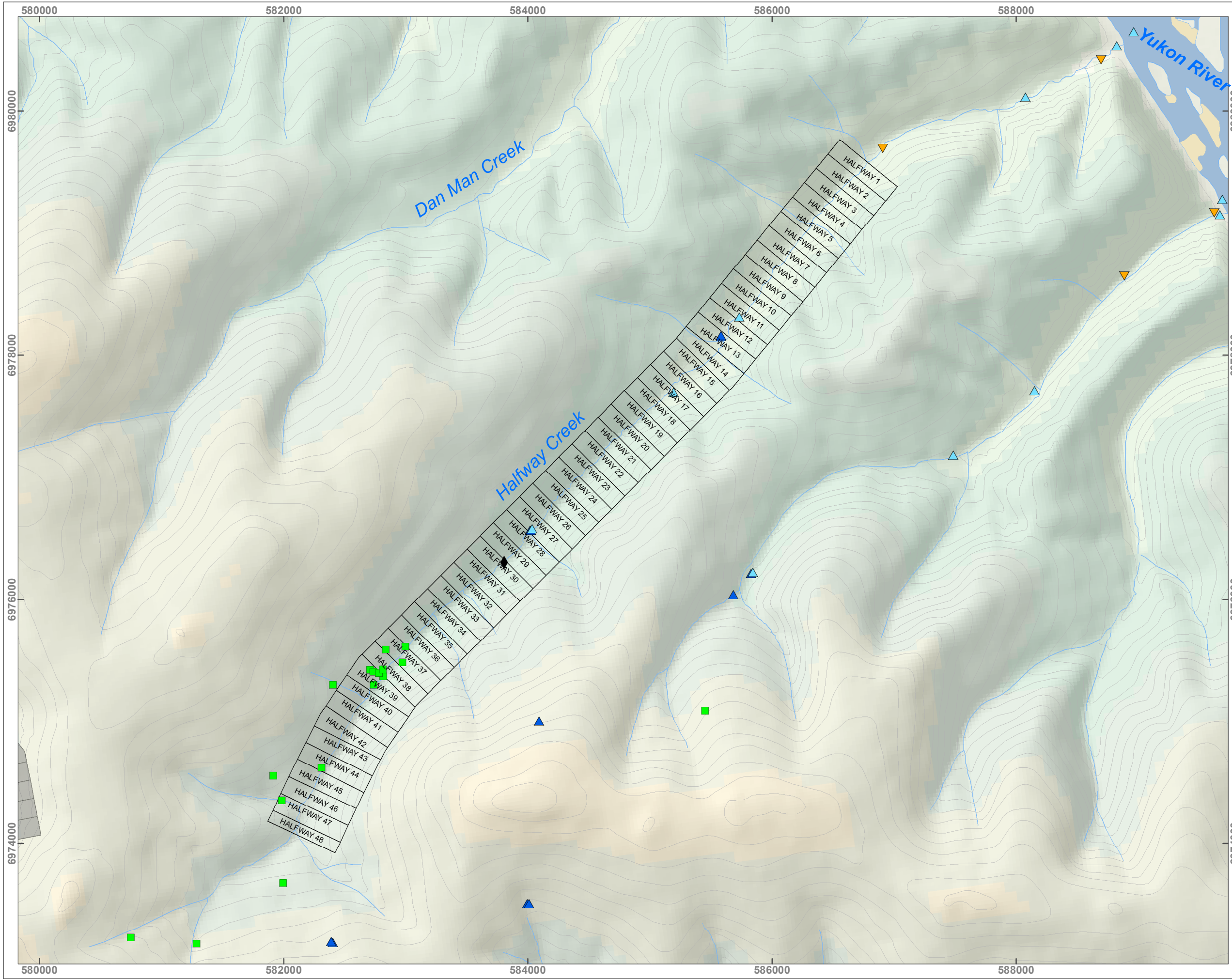
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1.0 INTRODUCTION

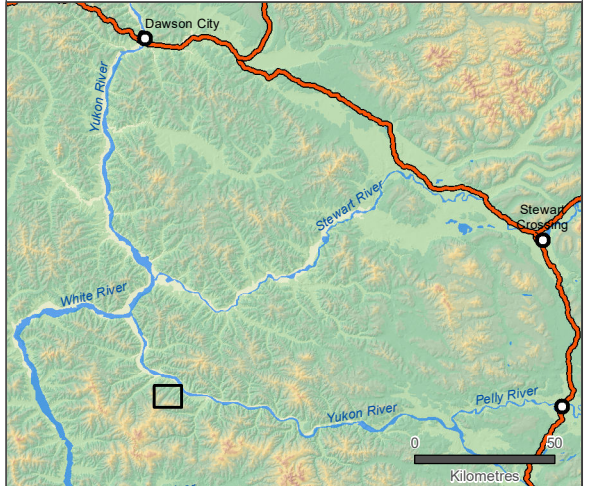
Newmont Corp. has grouped placer claims in Halfway Creek, a tributary to the Yukon River in west-central Yukon. Significant baseline environmental work has been undertaken in the area of Halfway Creek over the past several years related to fisheries and biological monitoring, water quality, and groundwater. This report summarizes the baseline environmental work on the Halfway Creek Group Placer Claims from October 1, 2019 to September 25, 2020. 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.

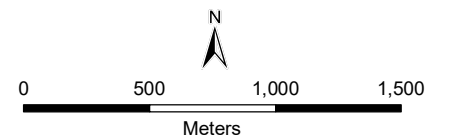


HALFWAY Placer Claim Group Enviromental Sampling Locations



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



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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; MacKenzie 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 |
|------|--|----------------------------------|-------------------|
| 2019 | Summer fish sampling to better understand fish distribution and usage in the Halfway Creek mixing zone with the Yukon River, and in Halfway Creek. All above noted work was conducted outside the placer claim and is therefore was not included in the statement of expenditures. However, the data collected increases the body of knowledge for the project environmental baseline studies. | EDI Environmental Dynamics (EDI) | In draft |
| 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 | EDI Environmental Dynamics (EDI) | EDI 2018a |

| Year | Data Summary | Agency | Report References |
|------------|---|--|--|
| | assessment, chlorophyll-a sampling, metals analysis of invertebrates and fish tissue. | | |
| 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. Summer/fall: fish sampling/habitat assessments, chlorophyll-a sampling, metals analysis of invertebrates and fish tissue. | EDI Environmental Dynamics (EDI) | EDI 2017a |
| 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 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 |

| Year | Data Summary | Agency | Report References |
|-----------|---|----------------------------------|-------------------|
| 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 |
| 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 2020 RESULTS AND DISCUSSION

5.1 WATER QUALITY

5.1.1 SURFACE WATER QUALITY RESULTS

Between October 1, 2019 and September 29, 2020 water quality samples were taken in Halfway Creek at HC-6.8 (formally HC-2.5; sampled six times) HC-B (sampled three times) and HC-C (sampled three times), 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-6.8/HC-2.5, HC-B and HC-C in 2020 exhibited similar water quality characteristics as found in previously sampled events (see Section 4.2).

5.2 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 36 regular thermistors on the property which require monthly data retrieval, 11 being located within the Halfway Creek Placer group (Figure 1). Thermistor data was collected on up to five occasions within the reporting period of this report. The results of the data collection between October 1, 2019 and September 29, 2020 are included in Appendix C.

6.0 STATEMENT OF EXPENDITURES

Appendix D contains the 2020 Statement of Expenditures for the Halfway Creek Placer group.

7.0 SIGNED STATEMENT OF QUALIFICATIONS FOR AUTHOR

Appendix E 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. Water quality and thermistor data continues to appear to be consistent in the Halfway Creek drainage.

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Appendix A: Halfway Creek Placer Group claims

Appendix B: Surface Water Quality Results - provided as a standalone appendix

Appendix C: Geotechnical Data

| Thermistor | BH-GT-14 | BH-GT-14 | BH-GT-14 | BH-GT-14 | BH-GT-14 | BH-GT-63 | BH-GT-63 |
|-------------|------------|------------|------------|------------|----------|------------|------------|
| Date | 2019-08-31 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 3/4/2020 | 2019-10-03 | 2019-11-09 |
| Time | 12:36 | - | - | - | 14:28 | 13:55 | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | | | |
| 1 | 9.01 | 2.03 | -4.61 | -4.17 | -7.29 | 0.28 | -0.03 |
| 2 | 4.03 | 0.67 | -0.68 | -0.72 | -2.21 | 0.32 | -0.41 |
| 3 | 2.07 | 0.52 | 0.01 | -0.01 | -0.87 | 0.16 | -1.22 |
| 4 | 0.69 | 0.47 | -0.02 | -0.03 | -0.08 | -0.05 | -0.06 |
| 5 | -0.06 | -0.04 | -0.14 | -0.14 | -0.15 | -0.34 | -0.28 |
| 6 | -0.45 | -0.38 | -0.34 | -0.33 | -0.31 | -0.58 | -0.50 |
| 7 | -0.61 | -0.52 | -0.46 | -0.43 | -0.38 | -0.79 | -0.68 |
| 8 | -0.81 | -0.73 | -0.67 | -0.62 | -0.54 | -1.02 | -0.89 |
| 9 | -1.06 | -0.89 | -0.85 | -0.79 | -0.67 | -1.29 | -1.16 |
| 10 | -1.03 | -0.99 | -0.95 | -0.91 | -0.82 | -1.42 | -1.29 |
| 11 | -1.01 | -1.00 | -0.98 | -0.94 | -0.85 | -1.51 | -1.41 |
| 12 | -1.06 | -1.07 | -1.06 | -1.04 | -0.96 | -1.58 | -1.50 |
| 13 | -1.02 | -1.04 | -1.03 | -1.03 | -0.95 | -1.57 | -1.51 |
| 14 | -1.04 | -1.07 | -1.07 | -1.07 | -1.02 | -1.54 | -1.52 |
| 15 | -1.03 | -1.04 | -1.05 | -1.04 | -1.02 | -1.51 | -1.56 |
| 16 | -1.05 | -1.06 | -1.07 | -1.07 | -1.04 | -1.40 | -1.46 |

| Thermistor | BH-GT-63 | GT-17-10 | GT-17-10 | GT-17-10 | GT-17-10 | GT-17-26 | GT-17-26 |
|-------------|------------|------------|------------|------------|----------|------------|------------|
| Date | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 3/4/2020 | 2019-10-03 | 2019-11-09 |
| Time | - | - | - | - | 15:00 | - | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | | | |
| 1 | -12.21 | 1.84 | -0.10 | -0.38 | -1.87 | 1.83 | 0.00 |
| 2 | -9.03 | 1.80 | 0.14 | -0.03 | -1.16 | 1.44 | 0.28 |
| 3 | -4.27 | -19.79 | -1.90 | -0.39 | -1.24 | 0.79 | 0.35 |
| 4 | -0.28 | 1.29 | 0.21 | -0.01 | -0.36 | 0.33 | 0.24 |
| 5 | - | 1.06 | 0.25 | 0.02 | -0.10 | 0.33 | 0.14 |
| 6 | -0.44 | 0.73 | 0.12 | -0.01 | -0.06 | 0.31 | 0.11 |
| 7 | -0.61 | 0.63 | 0.08 | -0.05 | -0.08 | 0.34 | 0.09 |
| 8 | -0.80 | 0.44 | -0.03 | -0.09 | -0.10 | 0.01 | -0.11 |
| 9 | -1.03 | -0.29 | -1.28 | - | -0.16 | -0.06 | -0.14 |
| 10 | -1.20 | -0.44 | -0.37 | -0.31 | -0.27 | 0.03 | -0.08 |
| 11 | -1.32 | -0.51 | -0.44 | -0.39 | -0.31 | 0.00 | -0.10 |
| 12 | -1.43 | -0.56 | -0.52 | -0.46 | -0.37 | 0.02 | -0.08 |
| 13 | -1.45 | 0.60 | -0.58 | -0.53 | -0.44 | 0.00 | -0.11 |
| 14 | -1.47 | -0.62 | -0.62 | -0.59 | -0.51 | 0.00 | -0.10 |
| 15 | -1.49 | -0.51 | -0.53 | -0.51 | -0.46 | -0.02 | -0.12 |
| 16 | -1.38 | -0.46 | -0.48 | -0.48 | -0.44 | -0.13 | -0.23 |

| Thermistor | GT-17-26 | GT-17-28 | GT-17-28 | GT-17-28 | GT-17-29 | GT-17-34 | GT-17-34 |
|-------------|------------|------------|------------|------------|------------|------------|------------|
| Date | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 2020-03-04 | 2019-08-31 | 2019-10-03 |
| Time | - | - | - | - | 14:47 | 12:20 | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celcius | Celsius | Celsius | Celsius | Celsius | Celcius |
| Bead | | | | | | | |
| 1 | 0.00 | 0.63 | -0.37 | -5.27 | -8.38 | 0.34 | 0.23 |
| 2 | 0.16 | 0.09 | -0.12 | -0.11 | -4.60 | -0.15 | -0.08 |
| 3 | 0.25 | 0.04 | -0.01 | 0.00 | -2.85 | -0.35 | -0.25 |
| 4 | 0.18 | -0.53 | -0.47 | -0.41 | -1.48 | -0.59 | -0.47 |
| 5 | 0.15 | -0.98 | -0.77 | -0.66 | -0.77 | -0.84 | -0.70 |
| 6 | 0.12 | -1.08 | -0.97 | -0.87 | -0.83 | -0.92 | -0.79 |
| 7 | 0.13 | -1.18 | -1.05 | -0.96 | -0.87 | -1.02 | -0.88 |
| 8 | -0.04 | -1.41 | -1.28 | -1.18 | -1.06 | -1.09 | -0.96 |
| 9 | -0.08 | -1.58 | -1.46 | -1.36 | -1.20 | -1.07 | -0.99 |
| 10 | 0.00 | -1.59 | -1.50 | -1.43 | -1.30 | -1.03 | -0.97 |
| 11 | -0.02 | -1.64 | -1.58 | -1.51 | -1.40 | -0.96 | -0.93 |
| 12 | -0.01 | -1.65 | -1.60 | -1.55 | -1.47 | -0.94 | -0.94 |
| 13 | -0.04 | -1.67 | -1.64 | -1.60 | -1.54 | -0.78 | -0.79 |
| 14 | -0.03 | -10.92 | -1.66 | -1.55 | -1.52 | -0.66 | -0.68 |
| 15 | -0.04 | -1.58 | -1.56 | -1.54 | -1.53 | -0.60 | -0.61 |
| 16 | -0.14 | -1.63 | -1.60 | -1.58 | -1.57 | -0.46 | -0.46 |

| Thermistor | GT-17-34 | GT-17-34 | GT-17-36 | GT-17-37 | GT-17-37 | GT-17-37 | GT-17-39 |
|-------------|------------|------------|------------|------------|------------|------------|------------|
| Date | 2019-11-09 | 2019-12-09 | 2019-10-03 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 2019-10-03 |
| Time | - | - | - | - | - | - | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | | | |
| 1 | -0.04 | -0.07 | 0.83 | -0.18 | -0.16 | -0.13 | 2.00 |
| 2 | -0.06 | -0.10 | 0.41 | -0.32 | -0.27 | -0.22 | -0.97 |
| 3 | -0.19 | -0.19 | 0.25 | -0.37 | -0.31 | -0.28 | -0.24 |
| 4 | -0.38 | -0.38 | 0.18 | -0.39 | -0.35 | -0.30 | -0.41 |
| 5 | -0.59 | -0.58 | 0.29 | -0.38 | -0.35 | -0.30 | -0.41 |
| 6 | -0.66 | -0.64 | -0.06 | -0.29 | -0.27 | -0.21 | -0.33 |
| 7 | -0.77 | -0.73 | -0.64 | -0.32 | -0.29 | -0.26 | -0.27 |
| 8 | -0.85 | -0.81 | -1.06 | -0.25 | -0.23 | -0.21 | -0.14 |
| 9 | -0.87 | -0.87 | -1.50 | -0.27 | -0.26 | -0.20 | 0.15 |
| 10 | -0.89 | -0.87 | -1.83 | -0.27 | -0.26 | -0.24 | 0.37 |
| 11 | -0.88 | -0.88 | -1.99 | -0.30 | -0.30 | -0.27 | 0.61 |
| 12 | -2.75 | -1.26 | -2.13 | -0.23 | -0.23 | -0.20 | 0.70 |
| 13 | -0.77 | -0.80 | -2.25 | -0.23 | -0.23 | -0.19 | 0.77 |
| 14 | -0.67 | -0.70 | -2.30 | -0.26 | -0.26 | -0.23 | 0.81 |
| 15 | -0.61 | -0.64 | -2.21 | -0.20 | -0.20 | -0.18 | 0.73 |
| 16 | -0.46 | -0.49 | -1.98 | -0.16 | -0.16 | -0.14 | 0.58 |

| Thermistor | GT-17-39 | GT-17-39 | SRK-AP-18-01 | SRK-AP-18-01 | SRK-AP-18-01 | SRK-AP-18-05 | SRK-AP-18-05 |
|-------------|------------|------------|--------------|--------------|--------------|--------------|--------------|
| Date | 2019-11-09 | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 2019-10-03 | 2019-11-09 |
| Time | - | - | - | - | - | - | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | | | |
| 1 | -16.87 | -16.17 | 1.72 | -23.66 | -18.00 | -0.08 | -0.13 |
| 2 | -0.57 | -3.58 | 1.72 | -23.68 | -17.89 | -1.04 | -0.90 |
| 3 | -0.19 | -0.66 | 1.76 | -23.68 | -18.10 | -1.10 | -0.93 |
| 4 | -0.34 | -0.32 | 0.90 | -24.09 | -18.47 | - | - |
| 5 | -0.33 | -0.33 | 0.93 | -3.77 | -2.09 | -1.43 | -1.22 |
| 6 | -0.26 | -0.28 | 1.88 | 0.13 | 0.01 | -1.52 | -1.30 |
| 7 | -0.21 | -0.21 | 1.47 | 0.26 | 0.07 | -1.60 | -1.38 |
| 8 | -0.11 | -0.13 | 0.76 | 0.29 | 0.12 | -1.61 | -1.39 |
| 9 | 0.05 | -0.04 | 0.91 | 0.43 | 0.28 | -1.61 | -1.43 |
| 10 | 0.14 | 0.00 | 0.97 | 0.40 | 0.23 | -1.58 | -1.44 |
| 11 | 0.35 | 0.13 | 0.95 | 0.40 | 0.25 | -1.45 | -1.36 |
| 12 | 0.45 | 0.19 | 0.96 | 0.45 | 0.30 | -1.28 | -1.23 |
| 13 | 0.49 | 0.19 | 0.91 | 0.39 | 0.25 | -1.14 | -1.12 |
| 14 | 0.49 | 0.19 | 0.83 | 0.42 | 0.27 | -1.03 | -1.02 |
| 15 | 0.42 | 0.13 | 0.79 | 0.49 | 0.36 | -0.88 | -0.87 |
| 16 | 0.42 | 0.19 | 0.56 | 0.50 | 0.42 | -0.72 | -0.72 |

| Thermistor | SRK-AP-18-05 | SRK-AP-18-06 | SRK-AP-18-06 | SRK-AP-18-06 | SRK-AP-18-07 | SRK-AP-18-07 | SRK-AP-18-07 |
|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Date | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 |
| Time | - | - | - | - | - | - | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | | | |
| 1 | -0.19 | -0.20 | -6.69 | -5.99 | 2.58 | -22.00 | -17.42 |
| 2 | -0.83 | 0.45 | -0.03 | -0.07 | 0.71 | -5.02 | -4.31 |
| 3 | -0.84 | 0.10 | -0.01 | -0.03 | 3.11 | -0.38 | -0.59 |
| 4 | - | -0.18 | -0.14 | -0.17 | 3.70 | 0.46 | 0.03 |
| 5 | -1.09 | -0.34 | -0.29 | -0.29 | 3.19 | 0.75 | 0.12 |
| 6 | -1.16 | -0.48 | -0.42 | -0.42 | 2.14 | 0.67 | 0.08 |
| 7 | -1.25 | -0.52 | -0.45 | -0.44 | 1.09 | 0.43 | 0.04 |
| 8 | -1.25 | -0.67 | -0.61 | -0.60 | 0.12 | 0.08 | -0.07 |
| 9 | -1.28 | -0.64 | -0.63 | -0.62 | -0.19 | -0.11 | -0.15 |
| 10 | -1.36 | -0.59 | -0.56 | -0.56 | -0.18 | -0.14 | -0.15 |
| 11 | -1.28 | -0.50 | -0.48 | -0.50 | -0.19 | -0.16 | -0.18 |
| 12 | -1.17 | -0.40 | -0.39 | -0.42 | -0.18 | -0.15 | -0.17 |
| 13 | -1.07 | -0.33 | -0.31 | -0.34 | -0.15 | -0.12 | -0.15 |
| 14 | -0.99 | -0.28 | -0.27 | -0.30 | -0.22 | -0.19 | -0.22 |
| 15 | -0.86 | -0.17 | -0.15 | -0.17 | -0.16 | -0.12 | -0.14 |
| 16 | -0.70 | 0.07 | 0.10 | 0.07 | -0.02 | 0.02 | 0.00 |

| Thermistor | SRK-AP-18-08 | SRK-AP-18-08 | SRK-AP-18-08 | SRK-AP-18-11 | SRK-AP-18-11 | SRK-AP-18-11 | SRK-FP-18-03 |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Date | 2019-10-03 | 2019-11-09 | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 | 2019-10-03 |
| Time | - | - | - | - | - | - | - |
| Photo taken | N | N | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | | | |
| 1 | 1.66 | -3.71 | -5.52 | 1.24 | -23.56 | -17.06 | 5.67 |
| 2 | 2.99 | 0.63 | 0.00 | 1.16 | -0.23 | -0.33 | 4.71 |
| 3 | 2.55 | 0.62 | -0.09 | 0.89 | -0.02 | 0.00 | 4.96 |
| 4 | 1.86 | 0.65 | 0.08 | 0.43 | -0.02 | -0.01 | 4.34 |
| 5 | 0.96 | 0.48 | 0.13 | -0.17 | -0.15 | -0.15 | 3.26 |
| 6 | 0.30 | 0.17 | -0.03 | -0.40 | -0.35 | -0.32 | 2.34 |
| 7 | -0.11 | -0.01 | -0.13 | -0.52 | -0.45 | -0.42 | 1.52 |
| 8 | -0.17 | -0.15 | -0.17 | -0.58 | -0.53 | -0.46 | 0.93 |
| 9 | -0.09 | -0.02 | -0.07 | -0.73 | -0.67 | -0.63 | 0.38 |
| 10 | -0.11 | -0.11 | -0.11 | -0.82 | -0.78 | -0.74 | 0.35 |
| 11 | -0.15 | -0.14 | -0.16 | -0.74 | -0.71 | -0.68 | 0.33 |
| 12 | -0.18 | -0.17 | -0.19 | -0.76 | -0.75 | -0.73 | 0.32 |
| 13 | -0.16 | -1.36 | -0.20 | -0.66 | -0.66 | -0.65 | 0.35 |
| 14 | -0.03 | 0.00 | -0.03 | -0.62 | -0.63 | -0.63 | 0.34 |
| 15 | -0.02 | -0.07 | -0.03 | -0.53 | -0.54 | -0.54 | 0.27 |
| 16 | 0.11 | 0.13 | 0.11 | 0.44 | -0.45 | -0.45 | 0.33 |

| Thermistor | SRK-FP-18-03 | SRK-FP-18-03 | SRK-KP-18-03 | SRK-KP-18-03 | SRK-KP-18-03 |
|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Date | 2019-11-09 | 2019-12-09 | 2019-10-03 | 2019-11-09 | 2019-12-09 |
| Time | - | - | - | - | - |
| Photo taken | N | N | N | N | N |
| Units | Celsius | Celsius | Celsius | Celsius | Celsius |
| Bead | | | | | |
| 1 | -7.52 | -18.86 | 0.19 | -0.15 | -0.29 |
| 2 | 0.20 | 0.02 | -0.67 | -0.58 | -0.52 |
| 3 | 1.90 | 1.13 | -0.85 | -0.74 | -0.70 |
| 4 | 2.69 | 1.71 | -0.98 | -0.86 | -0.78 |
| 5 | 2.54 | 1.73 | -1.16 | -1.02 | -0.95 |
| 6 | 2.21 | 1.71 | -1.28 | -1.15 | -1.07 |
| 7 | 1.68 | 1.46 | -1.36 | -1.22 | -1.15 |
| 8 | 1.17 | 1.16 | -1.42 | -1.30 | -1.23 |
| 9 | 0.54 | 0.64 | - | - | - |
| 10 | 0.45 | 0.51 | -1.54 | -1.47 | -1.43 |
| 11 | 0.37 | 0.44 | -1.44 | -1.40 | -1.36 |
| 12 | 0.34 | 0.39 | -1.48 | -1.45 | -1.43 |
| 13 | 0.36 | 0.38 | -1.35 | -1.34 | -1.32 |
| 14 | 0.35 | 0.38 | -1.30 | -1.31 | -1.30 |
| 15 | 0.28 | 0.30 | -1.33 | -1.33 | -1.34 |
| 16 | 0.34 | 0.34 | -1.19 | -1.20 | -1.21 |

Appendix D: 2020 Halfway Creek Placer Group Statement of Expenditures

2020 Statement of Expenditures Halfway Placer Group GW01333

| 2020 Halfway Placer Group Baseline Environmental Expenditures | Cost |
|--|---------------------|
| Surface Water Quality Field Program | \$ 19,440.00 |
| Surface Water Quality Analytical | \$ 3,899.28 |
| Surface Water Quality Field Program Helicopter | \$ 13,877.50 |
| Thermistor Field Program | \$ 4,140.00 |
| Thermistor Helicopter | \$ 21,655.00 |
| Halfway Placer Group Environmental Report | \$ 600.00 |
| 2020 Expenditures Total (October 1, 2019 to September 29, 2020) | \$ 63,611.78 |

Appendix E: Statement of Qualification for the Author

I, Jasmin Dobson, of 37 Tigereye Crescent, Whitehorse, YT, Y1A-6G9, DO HEREBY CERTIFY THAT:

1. I am the Environmental Supervisor for the Coffee Project with current address at 37 Tigereye Crescent, Whitehorse, YT, Y1A-6G9, 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.

Date this 29th day of September 2020.



Jasmin Dobson, B.Sc.