WOLVERINE MINE

2016 ANNUAL REPORT

WATER USE LICENCE QZ04-065

QUARTZ MINING LICENCE QML-0006

Prepared for:

Yukon Energy, Mines and Resources

And

Yukon Water Board

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1 Introduction

The Wolverine Mine, owned and operated by Yukon Zinc Corporation (YZC), is a zinc-silver-copper-lead-gold underground mine, with on-site milling capabilities of 1,700 tonnes per day (tpd) to produce copper, lead and zinc concentrates. The Wolverine Mine is in the southeastern Yukon near the headwaters of the Wolverine Lake watershed within the Kaska Nation Traditional Territory. The original estimated life-of-mine (LOM) was nine years, based on a 5.2 Mt mineable reserve. YZC completed major site construction throughout 2009 and 2010. Mill commissioning commenced in 2011 and commercial production of 1,020 tpd was achieved on March 1, 2012. Production first achieved 1,700 tpd in January 2013. Site access is via air, or over a 24 km all season access road, which connects with the Robert Campbell Highway at km 190.

On January 27, 2015, YZC announced that it was temporarily shutting down operations at the Wolverine Mine, due to unfavourable market conditions; putting the site in "Temporary Closure". A notice of change of operations was submitted to the Yukon Government to that effect. Most employees and contractors were laid off at this time and the mine was put into care and maintenance. The Temporary Closure period continued throughout 2016, and was characterized by continued efforts to stabilize the site, and minimize site liabilities until the resumption of milling and mining activities.

In 2016, the underground mine remains closed and gated, there are no industrial activities or processes occurring in the mill, no tailings are being added to the TSF, and no waste or ore is being created or added to existing waste piles. A 4-man crew is on-site to maintain the site and ensure environmental compliance. Water discharging in the mine continued to be collected in the underground. All water collected at the site (i.e., contact water) was pumped or trucked to the Tailings Storage Facility (TSF) for storage, which has approximately 9 years of storage at the current rate of filling. The access road was not maintained in winter, and the site became a fly-in/fly-out operation, with regular flights to change out employees every three weeks.

On December 30, 2016, YZC submitted an updated Reclamation and Closure Plan (RCP2016-07). While pending approval, YZC continues to operate under the RCP2015-06. The Temporary Closure Section of RCP2015-06, and the December approval letter, includes the following activities, which have been conducted in some capacity, to date:

- Consolidation of all temporary ore and waste stockpiles to Waste Pad #2 – COMPLETED.
- Maintenance of airstrip and site roads – ONGOING: The access road is not maintained during the winter. There is sufficient fuel on-site to support closing of the road.
- Disposal of reagents and other hazardous materials – ONGOING, all reagents have been consolidated in a cement lined, covered facility. An extension to remove the reagents from site was received on May 31, 2016, granting YZC until August 1, 2016 to relocate the reagents from the site. This deadline was not met; however EMR has been duly informed of the slow progress on this item. Reagents continue to be passed on to other users and the process of disposal is ongoing.
- Flooding of underground mine workings – ONGOING, a detailed plan for installation of hydraulic plugs and downstream monitoring plan was submitted July 1, 2016 and was reviewed by EMR. This plan is currently halted pending a response from EMR to questions from YZC on the proposed design parameters.
- Environmental monitoring of underground workings – ONGOING. The *Environmental Monitoring of Underground Workings Plan* was submitted to YG EMR on May 31, 2016.

- Experimental water treatment system testwork – in-situ pilot scale biopass system installed. Results for Q4 were submitted on January 4, 2017. The next report will be submitted by May 30, 2017.
- Evaluation of water treatment options for the tailings storage facility – to be completed by July 17, 2017. Preliminary options are summarized in the updated Reclamation and Closure Plan V2016-07.
- Environmental monitoring – ONGOING, monthly and quarterly sampling is reported in monthly reports, due 30 days following the last day of the month.
- Annual inspections – Annual inspections of the tailings facility and aboveground infrastructure is due by July 1st of each year. The 2016 inspection was conducted in early September, and the report was submitted on December 3, 2016.

Ongoing monitoring of environmental conditions, surface water, groundwater and wildlife was continued in 2016. This Annual Report summarizes the activities conduced in 2016 under RCP2015-06, and under the active operating licences: Quartz Mining License QML-0006 (QML), and Yukon Water Board Type A Water Licence QZ04-065 (WUL Licence) and their appurtenant Operating and Environmental Plans.

2 Reporting Requirements

This Annual Report has been prepared to satisfy requirements contained within Quartz Mining License QML-0006 (QML) Condition 10.5, and Yukon Water Board Type A Water Licence QZ04-065 (WUL), and specifically provides information with respect to WUL Conditions 12, 13, 16, 33, 34, 41 & 42 and Schedule A for activities that occurred during the period of January 1 to December 31, 2016 at the Wolverine Mine.

Environmental monitoring and surveillance activities conducted in 2016 are also summarized, and reflect the reduced activities at the site, including:

- Surface water including water quality sampling;
- Groundwater including water quality sampling and water levels;
- Tailings storage facility monitoring;
- Engineering inspections; and
- Reclamation program effectiveness and biopass system design monitoring.

Assessments to compare 2016 data to previous data are provided to indicate the stability of the receiving environment under current conditions.

3 2016 Mine Activities

Temporary closure of the Wolverine Mine commenced on January 27, 2015, and has continued in 2016. Activities at the site include mainly snow removal and water management, construction of environmental test systems, environmental monitoring, and reduction of liabilities in the mill and mine storage areas. All water collected at the site (i.e., contact water) has been pumped or trucked to the Tailings Storage Facility (TSF) for storage, which has approximately 9 years of storage at the current rate of filling. The access road is not maintained in winter, and the site is a fly-in/fly-out operation.

No mining or milling activities were conducted in 2016.

2016 activities at the underground mine, mill and associated facilities, tailings storage facility and access road, are summarized in Sections 3.1, 3.2, 3.3 and 3.4, respectively.

Other activities at the site consisted of building a biopass between Waste Pad #2 and the TSF, off-site shipping of reagents, general vehicle repair and maintenance, removal of equipment from the mill building assay lab and general consolidation of materials and equipment.

3.1 Underground Mine

The underground mine is accessed by a surface ramp that extends from approximately 1,345 masl (the portal entrance) to 1,115 masl (the current lowest elevation). Additional access is through a ventilation raise that has an evacuation route. The underground mine is currently flooding passively with groundwater recharge and is currently gated and locked. A 2015 geotechnical survey of the main access ramp revealed a number of potential ramp support failures that need to be addressed before the ramp can be safely used. The only pieces of equipment remaining in the underground mine are the electrical transformers, switch gear and communications equipment, a single refuge station, and some pumps and fans.

In August 2016 an updated volumetric survey of underground workings was conducted to predict flooding rates and key dates. Where possible, validated solids were used from the previously constructed mine plan. 3D as-builts were constructed using GEOVIA Surpac 6.7 and used to calculate volumes. A 150 m^3/d rate of flooding was used based on the inspection conducted in April 2015 (Shin, 2015). With a total underground volume calculated at 168,611 m^3 and a flooded volume as of September 1, 2016 of 73,350 m^3, the mine is expected to be completely flooded to portal elevation by late May 2018.

Hydraulic bulkheads for the main portal and ventilation raise will be constructed during summer 2017. Closure of the surface openings will be conducted in accordance with the *Yukon Occupational Health and Safety Regulations* and under the direction of a qualified engineer to ensure physical and chemical stability. The installation of these watertight bulkheads will prevent access to the underground mine workings in order to protect human health and safety, and limit conflicts with wildlife. The current design is provided in the *Watertight Bulkhead Design & Calculation* document (Shin, 2016).

3.2 Mill and Associated Infrastructure

There are no industrial activities or processes occurring in the mill. There is currently no zinc concentrate remaining on site and there are less than 20 bags of lead and copper concentrate remaining to be shipped off site by the purchaser. The CLO has been swept and cleaned out; while the majority of reagents have been removed from site, some are awaiting transportation and are securely stored in the CLO. The remaining lime is also securely packaged and stored in sealed freight containers on the site. This lime is intended to be used to advance reclamation and closure efforts, over the next 5 years.

No explosives remain on site. The explosives magazines have been emptied, the explosives burned, and the licences returned to Yukon Worker's Compensation Health and Safety Board to be held for YZC.

There is no other work planned for the processing plant and mill during temporary closure and the facility is locked.

Visual inspections of on-site earth structures was conducted as part of the inspection by Knight Piesold Ltd. (Appendix A) August 29 – September 1, 2016. Visual observations were made of the on-site earth structures and ponds including the mill pad area and various industrial facilities. No major concerns were identified during the inspection of the on-site infrastructure.

The mine site contains numerous ditches and culverts that require regular inspections and maintenance, with repairs as needed. It was recommended the mine site staff regularly inspect site ditches and culverts and make repairs as needed.

3.3 Tailings Storage Facility

The tailings storage facility (TSF) is a compacted homogeneous earth fill dam with an impervious geo-synthetic liner, built in two stages. The liner covers the base of the TSF impoundment and the upstream face of the dam to the crest. A seepage collection dam downstream of the main dam collects seepage water to be returned to the TSF, or settled prior to discharge into the Go Creek drainage. During mining operations, water from the underground workings and the tailings slurry from the milling process is pumped to the TSF and reclaimed water from the TSF is pumped back to the mill for process water use. During temporary closure, the mill is not operational and groundwater discharge is stored in the underground mine. The only inputs to the TSF during temporary closure are precipitation and surface runoff collected in sumps at the industrial complex, Waste Rock Pad #1, Waste Rock Pad #2 and at the seepage pond.

In August 2016, the total volume of the TSF was estimated at 1,095,000 m^3 by bathymetric survey. Approximately 570,000 m^3 was occupied by saturated tailings while the volume of free water above the tailings was roughly 525,000 m^3. According to the site water balance, the inventory increases by approximately 50,000 m^3/year in years with average precipitation.

The total storage capacity of the TSF to the spillway elevation is 1,553,000 m^3 (1311.5 m elevation). Assuming that the annual inflow amount to the average of 50,000 m^3, it will take approximately 8 years to fill the TSF. Assuming that 1 m freeboard is required below the below the dam spillway (at 1310.5 m), the total storage capacity is 1,378,000 m^3. It will take approximately 5 years for the TSF inventory to reach this volume, assuming average annual precipitation.

An inspection of the TSF was conducted by Knight Piesold Ltd. August 29 – September 1, 2016 (Appendix A), and resulted in the following recommendations and observations:

- The TSF is accumulating water and the supernatant pond covers the entire TSF basin.
- There have been no significant changes to the dam or instrumentation monitoring records since the previous inspection (July 2015). However:
    - The two inclinometers installed in the south dam are no longer functioning.
    - The five survey monuments at the south dam have not been read since January 2015.
    - The slump reported in the 2015 DSI at the north end of the TSF still exists, although the liner is still intact. The slump has resulted in a loss of the liner anchor trench and a lowering of the crest by approximately 1.5 m in this area. The progression of the slump is being monitored by site staff. Defects to the liner in this area are above the water level and the spillway invert.
- The slump is likely attributed to groundwater flow which has eroded the subsurface materials. It is recommended Yukon Zinc engage the Engineer of Record (EoR) to evaluate the groundwater flow in this area and develop a plan to mitigate the on-going erosion of the slope to protect the liner from further deterioration.
- It is recommended Wolverine Mine engage the EoR to assess the instrumentation monitoring and replacement requirements.

- It is recommended Yukon Zinc schedule a Dam Safety Review to comply with the Canadian Dam Association guidelines.
- It is recommended the water balance be updated and calibrated with measured pond volumes on a regular basis, with the results reported to the EoR.

The details of these recommendations are provided in Appendix A.

3.4 Access Road Operation

The very limited freight requirements of the temporary care and maintenance program, particularly the reduced diesel consumption, allow for seasonal operation of the access road, eliminating the need for winter road maintenance. In 2016, the access road was maintained from March through to the end of October.

There is one access control gate at km 0.1, to prevent public use of the access road. A radio-controlled automated gate opener was installed at the gate at km 0.1 in 2008 and is in use during road use periods. All vehicles entering and leaving the site are required to call security, via radio, to gain access/exit through the radio-controlled gate. Maintenance to the road included grading and gravel put into potholes. No major construction activities were conducted along the access road.

In 2016, all freight and service vehicles entering and exiting site were recorded by site personnel and are summarized by month in Table 3-1. The total annual access road usage for 2016 was 328 vehicles.

Table 3-1: 2016 Access Road Vehicle Usage

Month	January	February	March	April	May	June	July	August	September	October	November	December	Total
Vehicle Traffic	0	0	24	27	34	39	113	39	32	16	0	4	**328**

4 Water Use

The WUL permits the use of water from the Go Creek and Wolverine Creek watersheds, up to 7,230 m^3/day. Use from the Wolverine Creek watershed is in the form of groundwater discharge to the underground mine; however, underground dewatering has ceased, with no mechanisms to measure inflow. As discussed above, the inflow rate is estimated at 150 m^3/day.

Other water use was only from the Go Creek watershed for the purposes of potable water (from a groundwater well upslope of the accommodation camp). The total water use from the Go Creek watershed in 2016 was 513 m^3 or on average 1.4 m^3/day (Table 4-1).

Table 4-1: Go Creek Watershed Water Use 2016

	January	February	March	April	May	June	July	August	September	October	November	December	Annual Total
Go Creek Watershed Water Use (Potable Water)	62	56	62	64	56	62	43	38	25	15	14	13	**513**

All potentially contaminated water is collected from surface runoff collected in Sump #2 and at the land treatment facility sump, and from the sewage treatment plant. All collected water is pumped or trucked to the TSF. The monthly volumes pumped and/or trucked to the TSF are summarized in Table 4-2.

Overall, in 2016 4,652 m^3 of water was discharged to the TSF, excluding precipitation and runoff from the catchment around the TSF.

Table 4-2: Underground, Sewage Treatment Plant and Surface Runoff Discharged to TSF 2016

	January	February	March	April	May	June	July	August	September	October	November	December	Annual Total (m^3)
Sewage Treatment Plant (m^3)	0	0	0	63	131	125	124	184	54	15	10	10	716
Land Treatment Facility (m^3)	0	0	0	0	0	0	98	138	69	0	0	0	305
Sump #2 (m^3)	0	0	15	0	1,326	0	1	398	1,841	49	0	0	3631
Water to Tailings (m^3)	**0**	**0**	**15**	**63**	**1,457**	**125**	**224**	**720**	**1,964**	**64**	**10**	**10**	**4,652**

5 Waste Discharges

There were no discharges to the environment in 2016.

6 Environmental Monitoring

Environmental monitoring at the Wolverine Mine is conducted as per Schedule A of the WUL QZ04-065, and as per the program details outlined in the *Monitoring and Surveillance Plan V2011-03* and in the *Wildlife Protection Plan V2009-01* (WPP). The program includes:

- Surface water including water quality sampling and hydrology;
- Groundwater including water quality sampling, water levels and water table (piezometers);
- Piezometric monitoring of the water table above the underground mine;
- Aquatic life and sediment monitoring on the Metal Mine Effluent Regulations (MMER) Environmental Effects Monitoring (EEM) program;
- Weather; and
- Wildlife monitoring.

Piezometric monitoring and weather monitoring, while conducted through on-going loggers, is not reported herein as the loggers were not able to be downloaded in 2016.

6.1 Water Quality and Quantity Monitoring

The environmental monitoring program approved by Yukon Government Mineral Resources Branch details surface and ground water quality sampling requirements to be conducted in the temporary closure period, summarized in Table 6-1. The conformance with those requirements is also provided in Table 6-1.

The results of the monitoring conducted at those sites is summarized below, and water quality results are compared to the historic (1995-2008) baseline average and 95th percentile values provided in the Lorax Environmental *Baseline Characterization Summary Report* provided in Appendix A of *Monitoring and Surveillance Plan V2011-03* (*Baseline Report*).

Table 6-1: Temporary Closure Surface Sampling Program Conformance for 2016

Station Number	Required Sampling Frequency	Q1	Q2	Q3	Q4
T1	Quarterly	February, March	April, May, June	July, August, September	October
W82	Quarterly	-	-	July, August	October
W9	Quarterly	February	June	August, September	
L1	Quarterly	February	June	August, September	
W15	Quarterly	-	-	August, September	October
W81	Quarterly	-	-	August, September	October
W31	Quarterly	-	June	July	October
W80	Quarterly	January	June	August	October
W22	Seasonally	-	April	July	October
W71	Seasonally	January	April	July	October
W72	Seasonally	January	April	July	October, December
W73	Seasonally	January	April	July	October, December
MW05-1A, 1B	Quarterly	-	June	August	-
MW05-2A, 2B	Quarterly	-	June	August	-
MW05-3A, 3B	Quarterly	-	June	August	-
MW05-4A, 4B	Quarterly	-	June	August	-
MW05-5A, 5B	Monthly	February, March	April, May, June	July, August, September	October, November
MW05-6A, 6B	Quarterly	February	June	August	November
MW05-7B	Quarterly	-	-	August	-
MW06-8S, 8M, 8D	Quarterly	February	June	August	-
MW06-9S	Quarterly	March	June	August	November
MW06-10S, 10M, 10D	Quarterly	March	June	August	-
MW06-11S	Monthly	-	May, June	July, August, September	October
MW06-12S	Quarterly	-	June	August	November
MW08-13	Quarterly	-	June	August	-

6.1.1 Surface Water Monitoring

Surface water monitoring includes surface water quality and hydrological monitoring in the Wolverine and Go Creek watersheds. The results of the water quality at the Tailings Facility area, Wolverine Creek watershed, Go Creek watershed, Money Creek watershed and Access Road route are summarized below. Hydrological sampling was not conducted in 2016. Full water quality monitoring results are provided in Appendix B, and the full third party laboratory reports in Appendix C. Additionally, to enhance confidence in the stability and robustness of the water quality results at surface water monitoring stations, results are provided graphically below for key water quality parameters (e.g., copper, selenium and zinc).

As shown in the figures below, the present water quality in the surface water monitoring sites is consistent with baseline water chemistry (1998 – 2008). Site T1 is the tailings storage facility (sampled at the reclaim barge), and indicates generally increasing concentrations (most notably for copper) as operations progressed. Water chemistry in receiving environment sampling sites was consistent with past copper, selenium and zinc concentrations, which are generally indicative of overall water chemistry.

6.1.1.1 Tailings Facility

Tailings facility monitoring (station T1) commenced in July 2010 to examine the chemistry of the tailings supernatant. The results of sampling at station T1 is presented in Figure 6-1 for copper, selenium and zinc. As this station was not included in the *Baseline Report*, there are no average values or 95th percentile values against which to compare the data. The tailings supernatant (T1) indicates generally increasing concentrations (most notably for copper) as operations progressed. Selenium and copper values have decreased slightly from operational values in 2016, while zinc concentrations have increased.

An assessment conducted in November indicated a decreasing trend in alkalinity, most pronounced at lower depths, closer to the tailings interface (Figure 6-2). In the 4 m depth horizon, approximately 40 mg/L of alkalinity has been consumed since the cessation of milling and mining in January 2015. Current alkalinity in the tailings supernatant water column at the 4 m depth is less than the reportable detection limit of 0.50 mg/L. This depletion in alkalinity has corresponded with an increase in iron concentrations (Figure 6-3), as well as other metals. As such, YZC will add lime to the TSF pond in spring 2017 to bring up the alkalinity back to within the desirable range (100 mg/L) to account for the ~40 mg/L that has been lost over the 2-year temporary closure period.

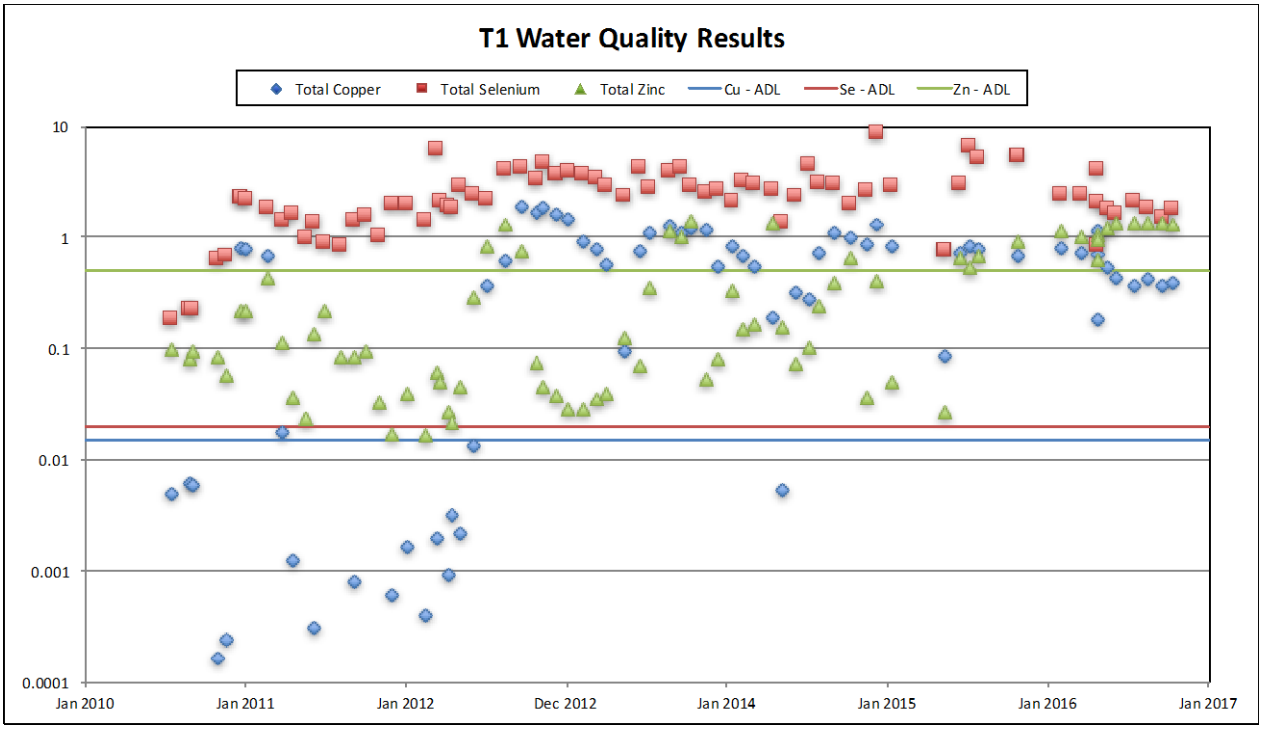


Figure 6-1: Copper, Selenium and Zinc Concentrations at Station T1

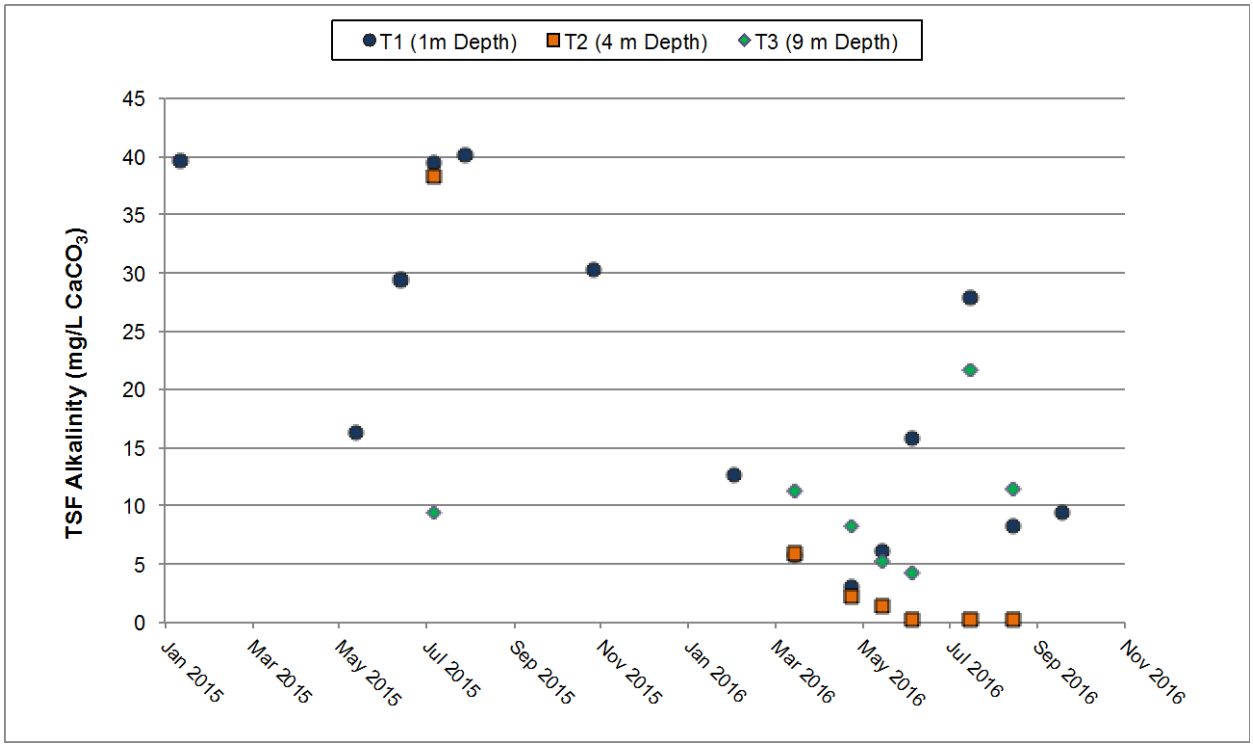


Figure 6-2: TSF Alkalinity January 2015 – November 2016

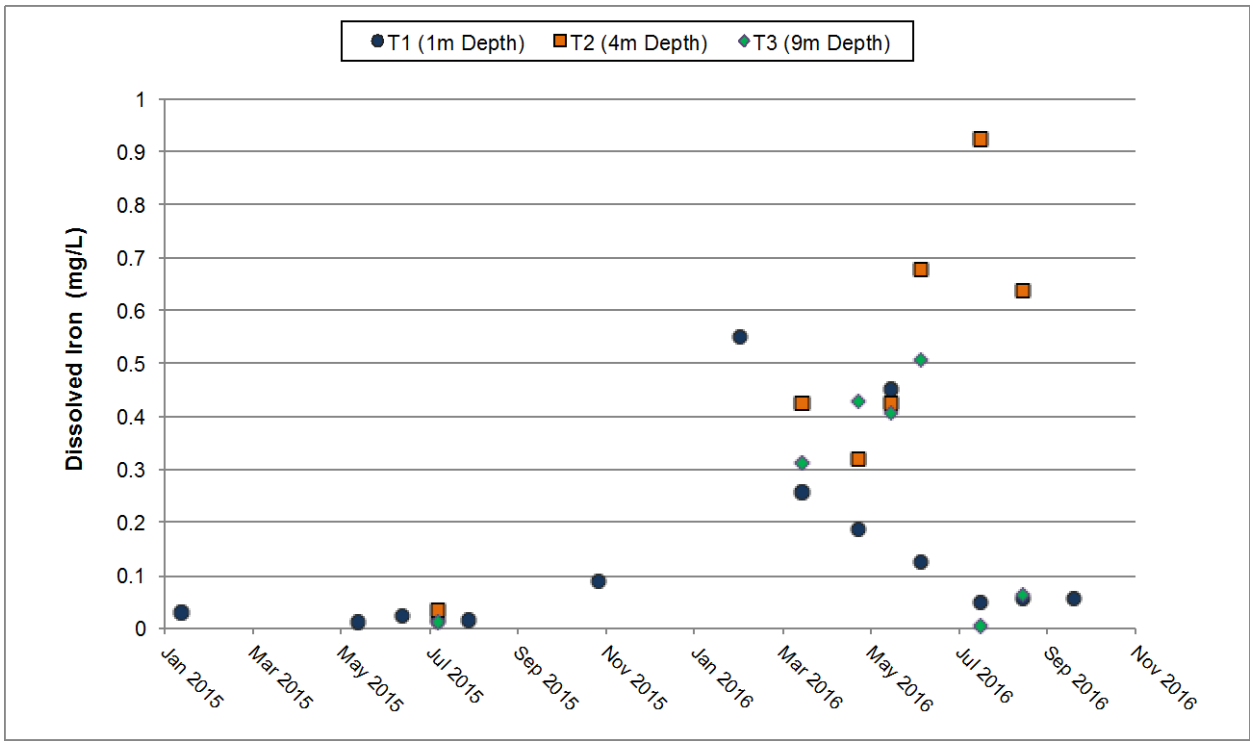


Figure 6-3: TSF Iron Concentrations January 2015 – November 2016

6.1.1.2 Wolverine Creek Watershed

Wolverine Creek water quality stations are located at upper Wolverine Creek (W82) to monitor the impact of mining on the immediate receiving environment, and progress downstream to the confluence of Wolverine Creek (W9) and to the confluence of Little Wolverine Lake and Wolverine Lake (L1). Ongoing hydrology monitoring is conducted at stations W82 and W9 with manual hydrological monitoring conducted to calibrate the in-situ loggers; however, these stations were not downloaded in 2016. The water quality in the Wolverine Creek watershed has been extremely consistent over the operational period, which is in turn consistent with baseline water chemistry (Figure 6-4 through Figure 6-7). This chemistry has remained consistent during the Temporary Closure period.

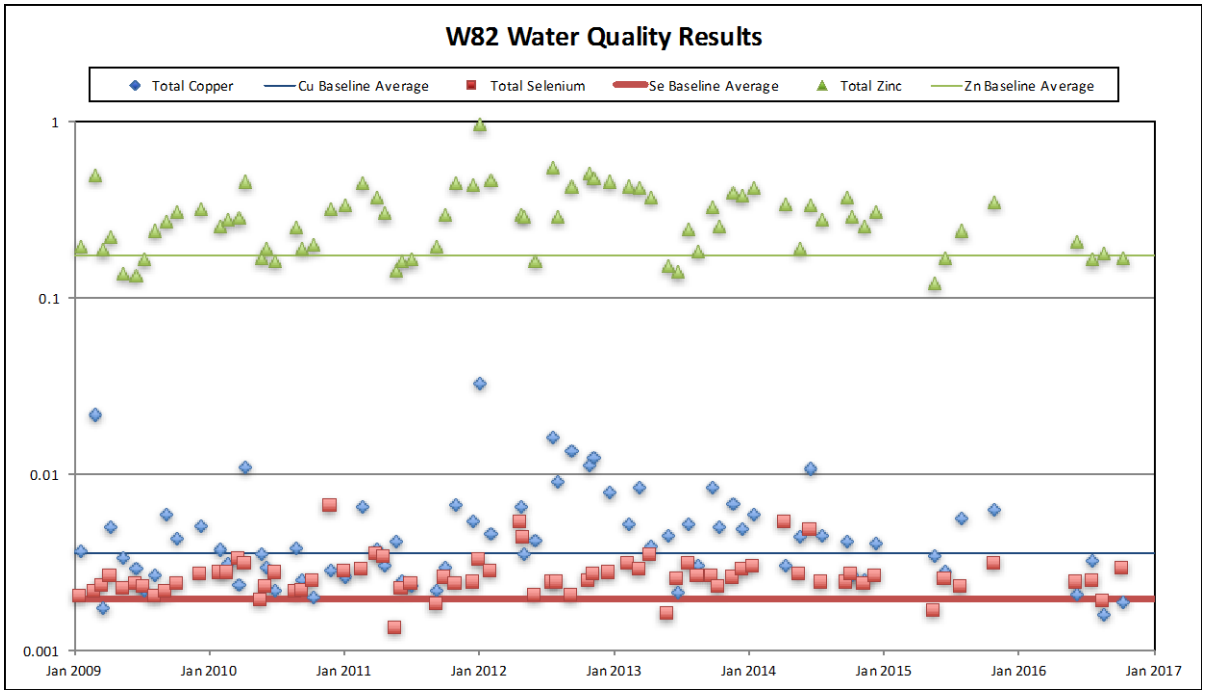


Figure 6-4: Cu, Se and Zn Concentrations Compared to Baseline in Upper Wolverine Creek (Station W82)

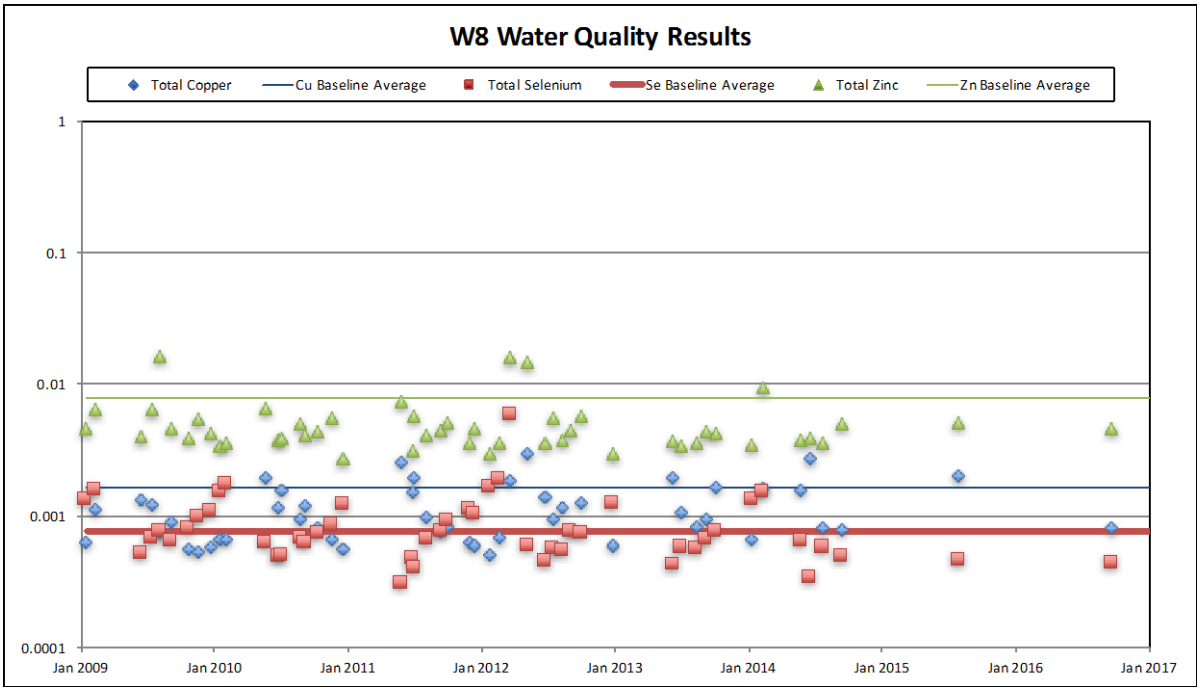


Figure 6-5: Cu, Se and Zn Concentrations Compared to Baseline in Campbell Creek (Station W8)

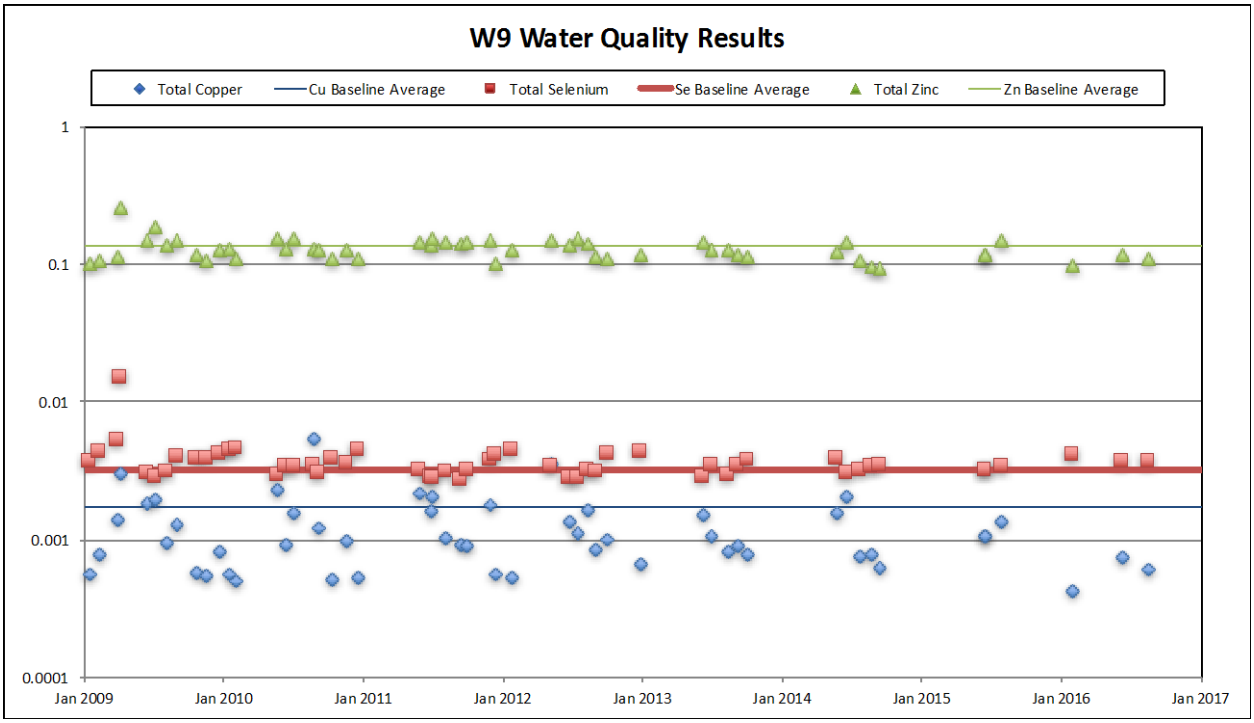


Figure 6-6: Cu, Se and Zn Concentrations Compared to Baseline in Lower Wolverine Creek (Station W9)

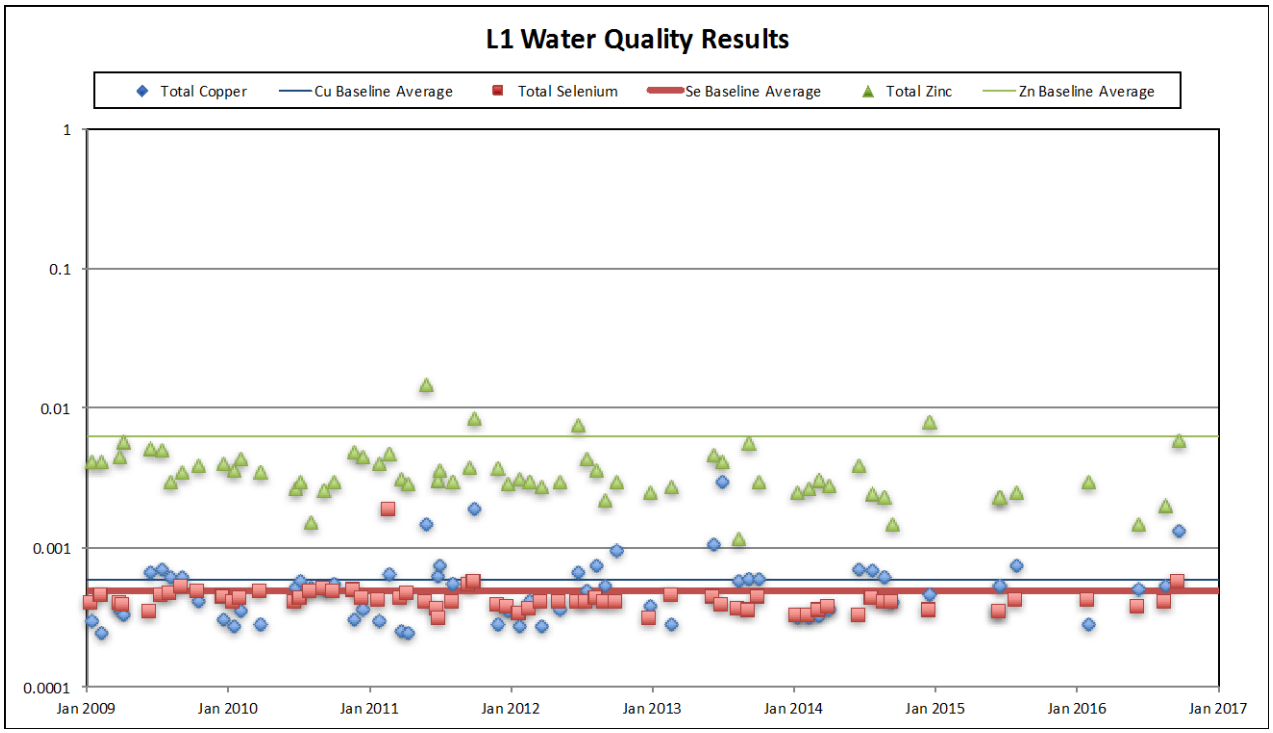


Figure 6-7: Cu, Se and Zn Concentrations Compared to Baseline in Wolverine Lake (Station L1)

6.1.1.3 Go Creek Watershed

Go Creek surface water monitoring starts at upper Go Creek (W31) and progresses down Go Creek to the confluence with Hawkowl (W81), and to station W80, which is the upper limit of fish presence noted during baseline monitoring, as well as the water quality objective point. Go Creek watershed monitoring is also conducted at Hawkowl Creek (W15), which is a tributary to Go Creek above the Tailings Storage Facility. Water quality in Go Creek is more variable than in Wolverine Creek, with larger seasonal fluctuations (Figure 6-8 through Figure 6-11). Water quality during the operational period and into Temporary Closure has remained consistent with baseline water chemistry for all Go Creek sites. Hydrology in Go Creek is measured through a continuous logger at station W80, which was not downloaded in 2016.

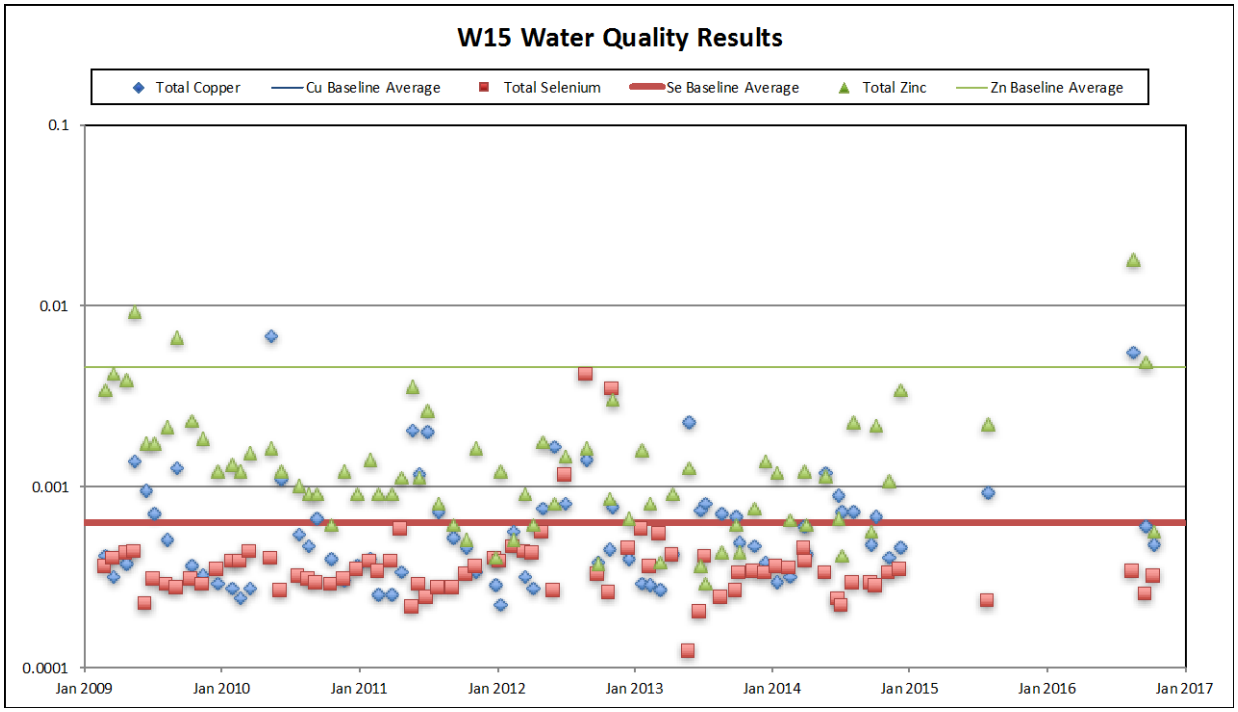


Figure 6-8: Cu, Se and Zn Concentrations Compared to Baseline in Hawkowl Creek (Station W15)

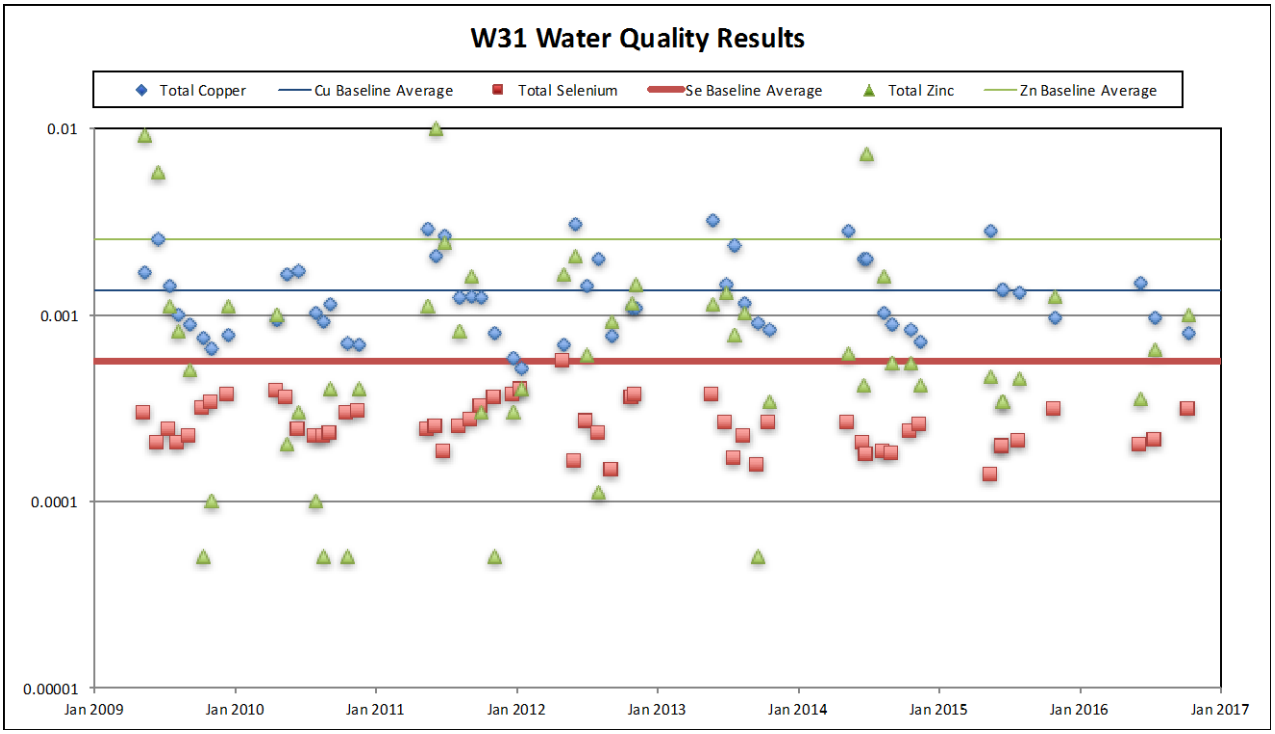


Figure 6-9: Cu, Se and Zn Concentrations Compared to Baseline in Upper Go Creek (Station W31)

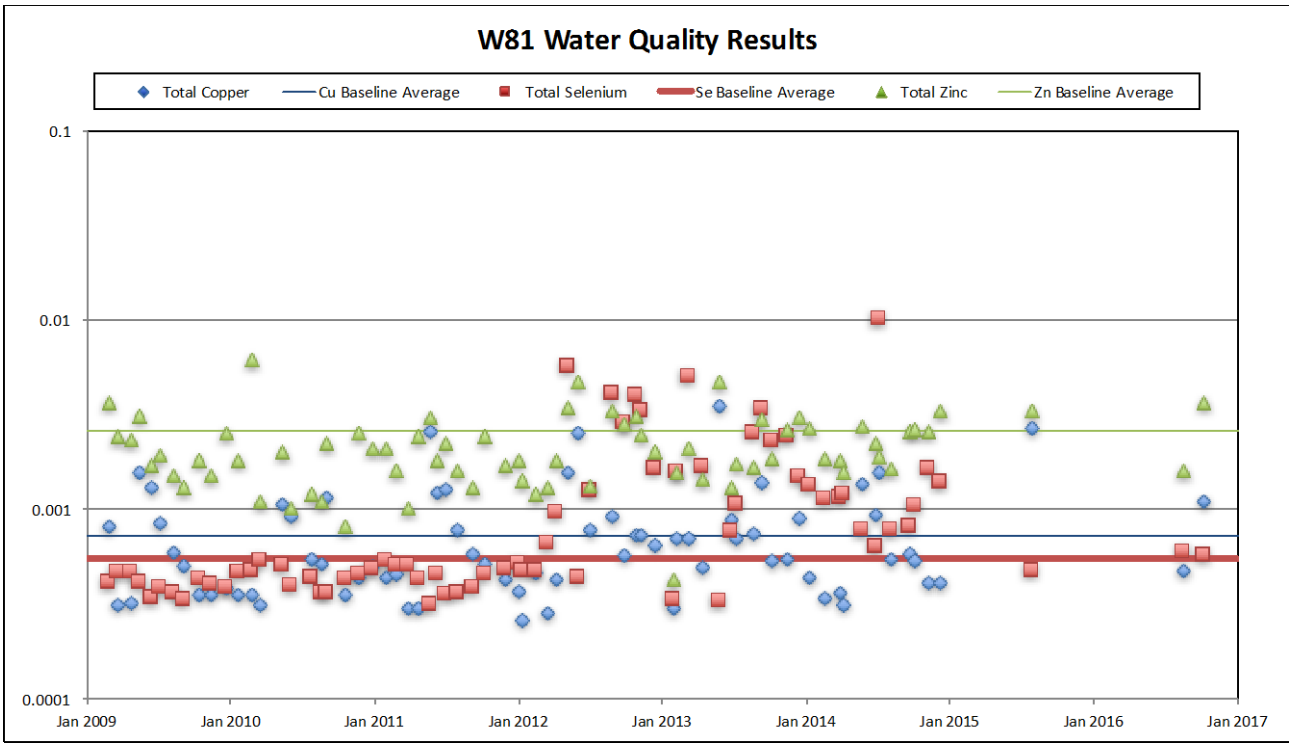


Figure 6-10: Cu, Se and Zn Concentrations Compared to Baseline in Go Creek (Station W81)

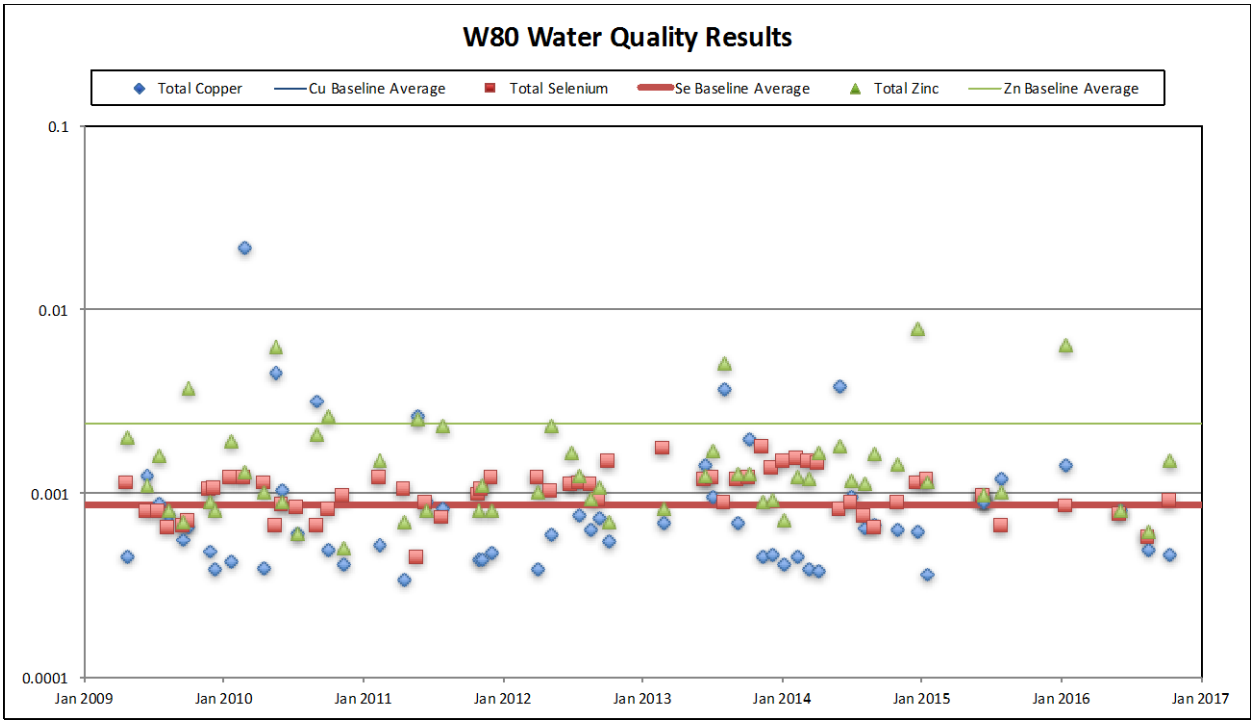


Figure 6-11: Cu, Se and Zn Concentrations Compared to Baseline in Lower Go Creek (Station W80)

6.1.1.4 Money Creek Watershed

Water quality and hydrology in the Money Creek watershed is measured at the intersection of Money Creek with the Robert Campbell highway, on the upstream side of the road, just before the confluence with Frances Lake. Water chemistry has been consistent throughout the operational period (2009-2014) and has remained consistent in 2016 (Figure 6-12). Hydrology was not monitored in 2016.

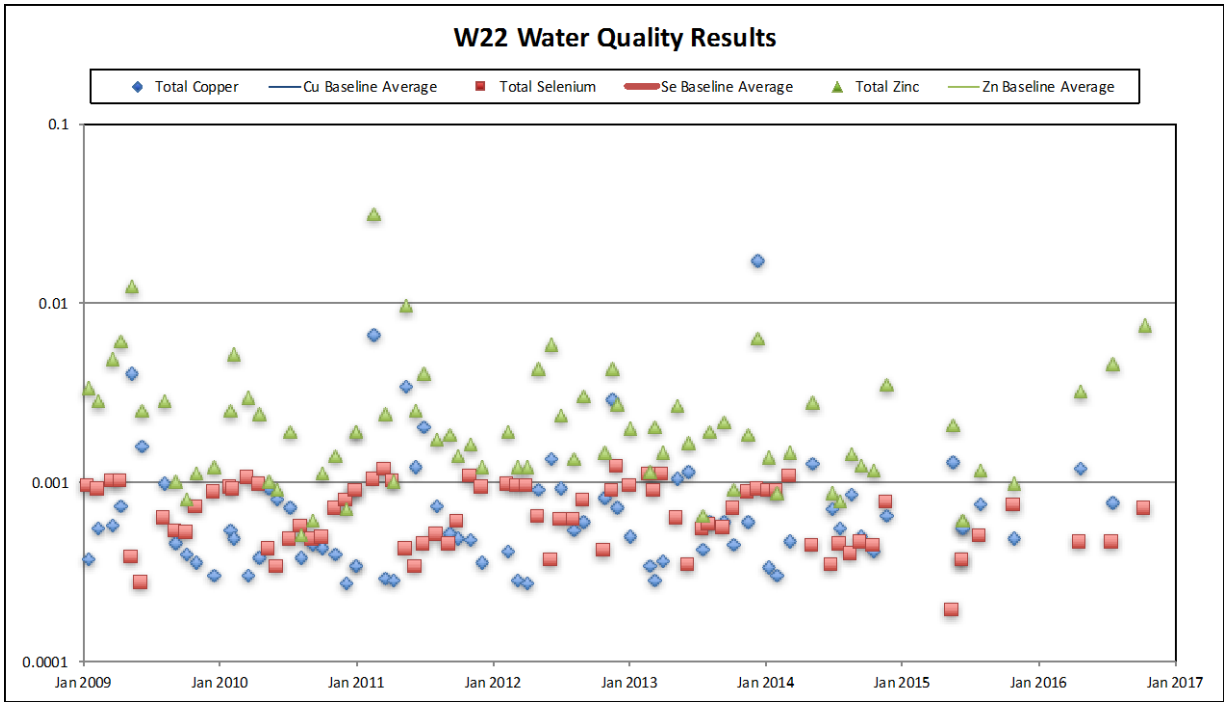


Figure 6-12: Cu, Se and Zn Concentrations Compared to Baseline in Lower Money Creek (Station W22)

6.1.1.5 Access Road Route

Water quality monitoring is conducted at Pitch, Putt and Bunker Creeks that intersect the Access Road. Water chemistry at Pitch and Putt Creeks (Figure 6-13 and Figure 6-14) have been extremely consistent, with relatively little variability. Water chemistry at Bunker Creek is more variable (Figure 6-15) but has remained within the range of baseline chemistry over the operational period, and throughout Temporary Closure. Hydrology is not measured at any of the Access Road Route monitoring sites.

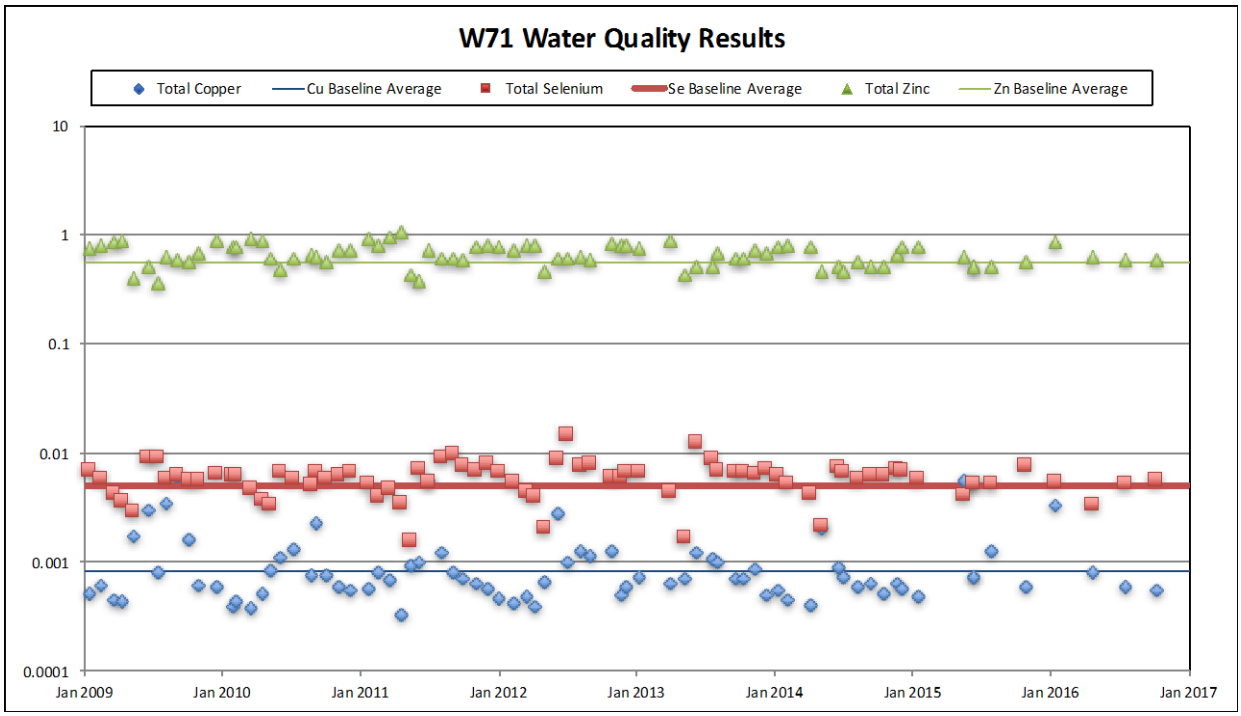


Figure 6-13: Cu, Se and Zn Concentrations Compared to Baseline in Pitch Creek (Station W71)

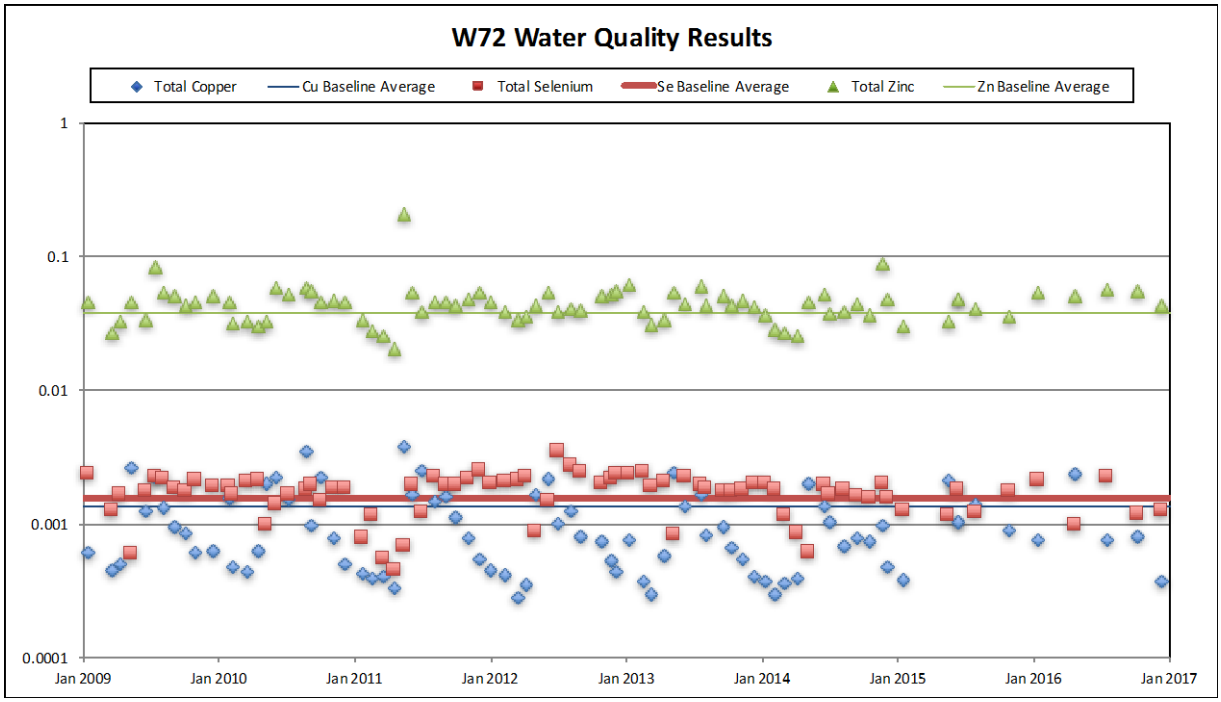


Figure 6-14: Cu, Se and Zn Concentrations Compared to Baseline in Putt Creek (Station W72)

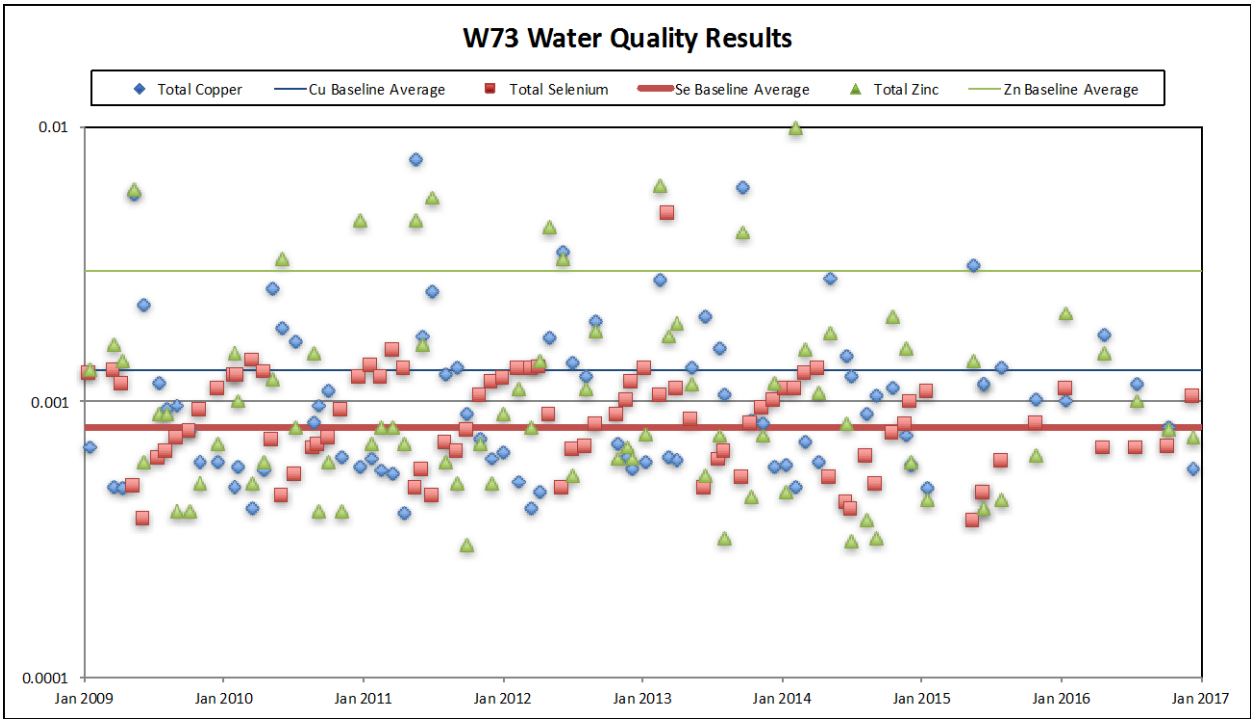


Figure 6-15: Cu, Se and Zn Concentrations Compared to Baseline in Bunker Creek (Station W73)

6.1.2 Groundwater Sampling Program

The groundwater monitoring program for the Wolverine Mine includes the monitoring of water levels, temperature and water quality at 24 locations at the Wolverine Mine site in alluvial, shallow and deep bedrock in the Wolverine Lake and Go Creek watersheds. The results of the groundwater quality and water level monitoring at the Tailings Facility area, Wolverine Creek watershed and Go Creek watershed are summarized below. Full water quality monitoring results are provided in Appendix B, and the full third party laboratory reports in Appendix C. Additionally, to enhance confidence in the stability and robustness of the water quality results at groundwater monitoring stations, results are provided graphically below for key water quality parameters (e.g., copper, selenium and zinc). The 2016 water quality in the groundwater monitoring sites is generally consistent with baseline water chemistry (1998 – 2008).

Water levels are also consistent with past measurements, although changes in loggers and the lack of calibration has resulted in some noticeable changes in results, which don't necessarily correlate to actual changes in water levels. The short lived spike lines in the graphs correspond to sampling periods, when the water levels decrease drastically and the temperatures increase. In general, the water levels increase each year around May/June, and decrease to the lowest seasonal levels in March/April. The water temperatures are highest around July/August, and lowest around December/January. Annual water levels in the various monitoring wells have remained relatively constant over the monitoring period.

6.1.2.1 Tailings Storage Facility

There are four groundwater monitoring wells downslope of the tailings impoundment: MW05-2A (shallow bedrock), MW05-2B, MW05-7B and MW08-13 (alluvial). Wells MW05-2 and MW05-7 are upslope of the TSF in the Go Creek valley, and MW08-13 is downslope of the TSF in Go Creek as well. Water quality sampling is centered in the ice-free months as wells MW05-2A and -2B and MW05-7 are

artesian, and frozen in the winter months. Water chemistry in upslope wells has been generally consistent over the monitoring period (Figure 6-16 and Figure 6-17), although selenium concentrations in well MW05-7 had increased significantly in 2014, but have decreased again in 2016. Other than the 2014 concentrations, selenium concentrations at these two sets of wells is generally less than detection, shown as values ½ the detection limit in Figure 6-16 and Figure 6-17.

At downslope well MW08-13, copper and zinc concentrations have remained comparable over the operational period, but selenium concentrations had been steadily increasing since 2012 through to early 2015. However, in 2015 and 2016, selenium concentrations and decreasing. This is a similar trend to selenium concentrations measured at station W81 (Figure 6-10).

Water levels and temperatures are measured in groundwater well MW08-13, which was not downloaded in 2016. Water level and temperature loggers are not installed in wells MW05-2 and MW05-7 as they are artesian, and consistently have a 0 m water level.

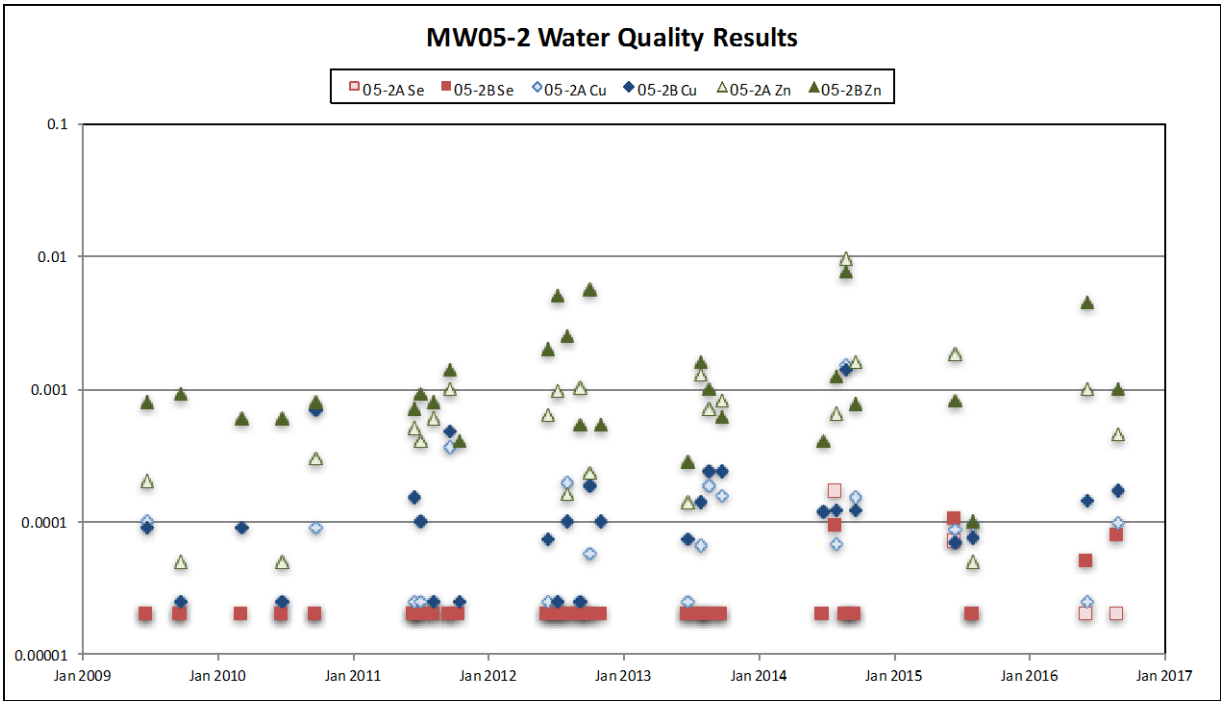


Figure 6-16:Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW05-2A and MW05-2B

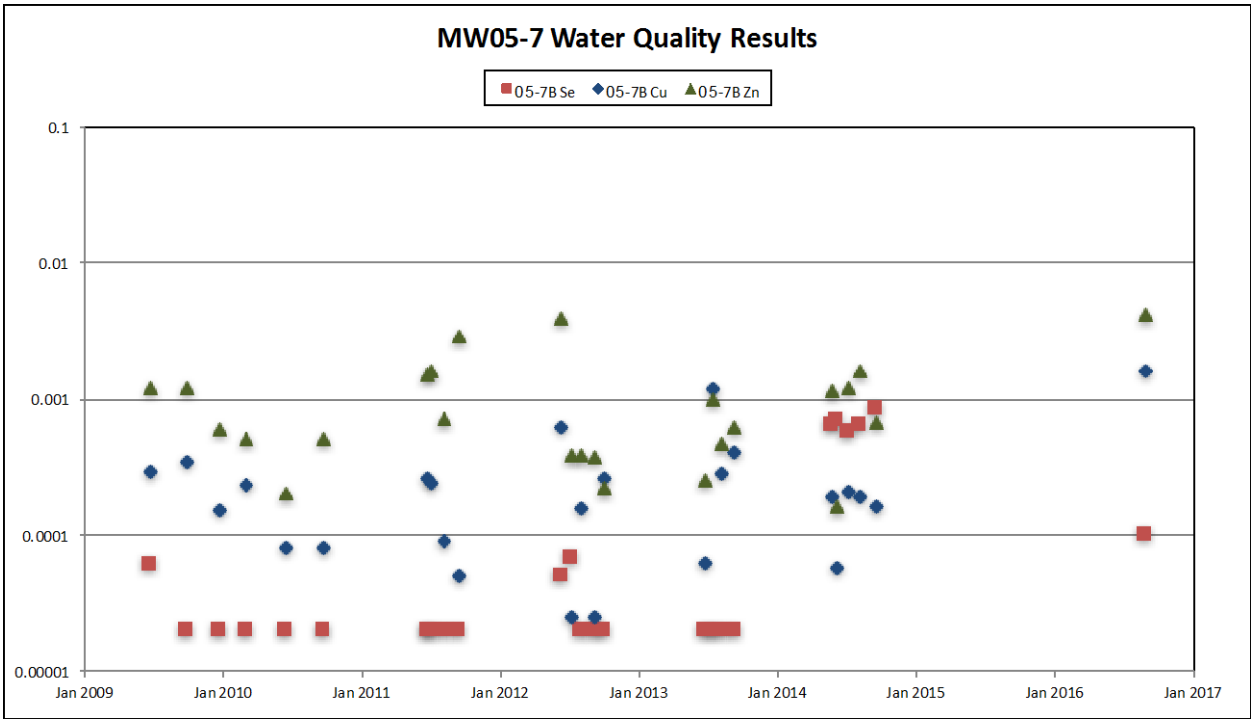


Figure 6-17: Cu, Se and Zn Concentrations in Groundwater Monitoring Well MW05-7

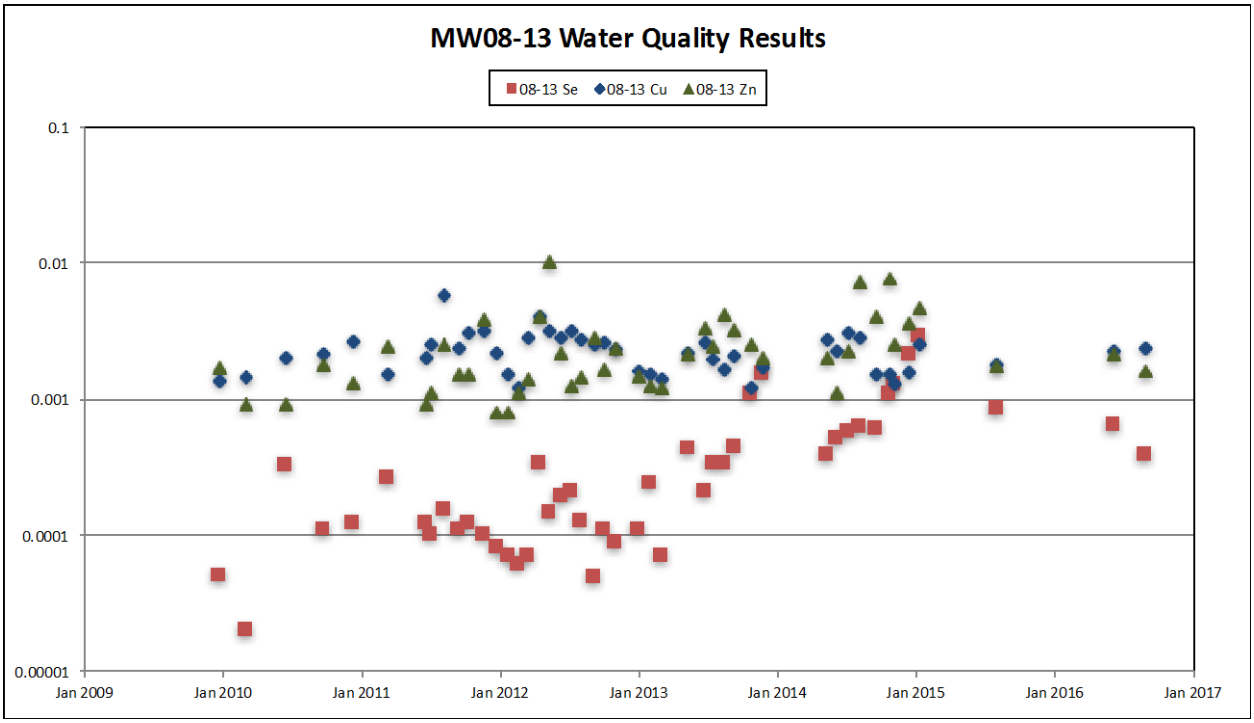


Figure 6-18: Cu, Se and Zn Concentrations in Groundwater Monitoring Well MW08-13

6.1.2.2 Wolverine Creek

Alluvial groundwater wells in the Wolverine Creek drainage include wells MW05-3B, MW05-4B and MW05-5B. Shallow bedrock groundwater wells in the Wolverine Creek drainage include wells MW05-3A, MW05-4A, MW05-5A, MW06-8S, MW06-9S, MW06-10S, MW06-11S and MW06-12S. Deep bedrock groundwater wells in the Wolverine Creek drainage include wells MW06-8M, MW06-8D, MW06-9M, MW06-10M and MW06-10D.

Water quality results over the 2016 period have been generally comparable to past results for groundwater monitoring wells in the Wolverine Creek drainage (Figure 6-19, Figure 6-22, Figure 6-25, Figure 6-28, Figure 6-32, Figure 6-34, Figure 6-37, and Figure 6-39). Selenium concentrations are typically less than the detection limit, shown as a value ½ the detection limit in the graphs below. There were some increases in selenium, copper and zinc concentrations evident for the 2016 concentrations in MW05-5 in early 2016 (Figure 6-25). Otherwise, though variable, the metals concentrations remain consistently within the range of historic measurements.

Water levels have also been consistent over the monitoring period (Figure 6-20, Figure 6-21, Figure 6-23, Figure 6-24, Figure 6-26, Figure 6-27, Figure 6-29, Figure 6-30, Figure 6-31, Figure 6-33, Figure 6-35, Figure 6-36, Figure 6-38, and Figure 6-40). The majority of the wells commenced logging in September 2006. Wells MW05-4A, MW05-4B, MW06-8S, MW06-9S, MW06-10M and MW06-12S have had loggers replaced. Changes in loggers and the lack of calibration has resulted in some noticeable changes in results, which don't necessity correlate to actual changes in water levels. There is no logger in well MW05-9M as it is an artesian well, and has a consistent water level of 0 m above ground level. Well MW06-8M was re-drilled in 2010; hence there are no data recorded prior to 2010. Many loggers were downloaded in early 2016, hence there is only data provided for early January 2016 and not beyond. MW06-10M was not downloaded in 2016.

The short lived spike lines in the graphs correspond to sampling periods, when the water levels decrease drastically and the temperatures increase. In general, the water levels increase each year around May/June, and decrease to the lowest seasonal levels in March/April. Annual water levels in the various monitoring wells have remained relatively constant over the monitoring period.

Temperatures in the wells have also remained generally consistent, with water temperatures highest around July/August, and lowest around December/January. Temperature in alluvial monitoring well MW05-5A has been steadily increasing over the monitoring period, from an annual low of ~1.7°C in late 2006 to an annual low of ~2.1°C in 2014 (Figure 6-26). The temperature in the shallow bedrock well (MW05-5B) has remained consistent over the 2006 – 2016 monitoring period (Figure 6-27). In shallow bedrock well MW06-8M, the temperature has been gradually decreasing from ~2.11°C in 2010 to 2.09°C in 2016 (Figure 6-30), whereas in the other nested wells at that location, the temperature has remained constant (Figure 6-29 and Figure 6-31).

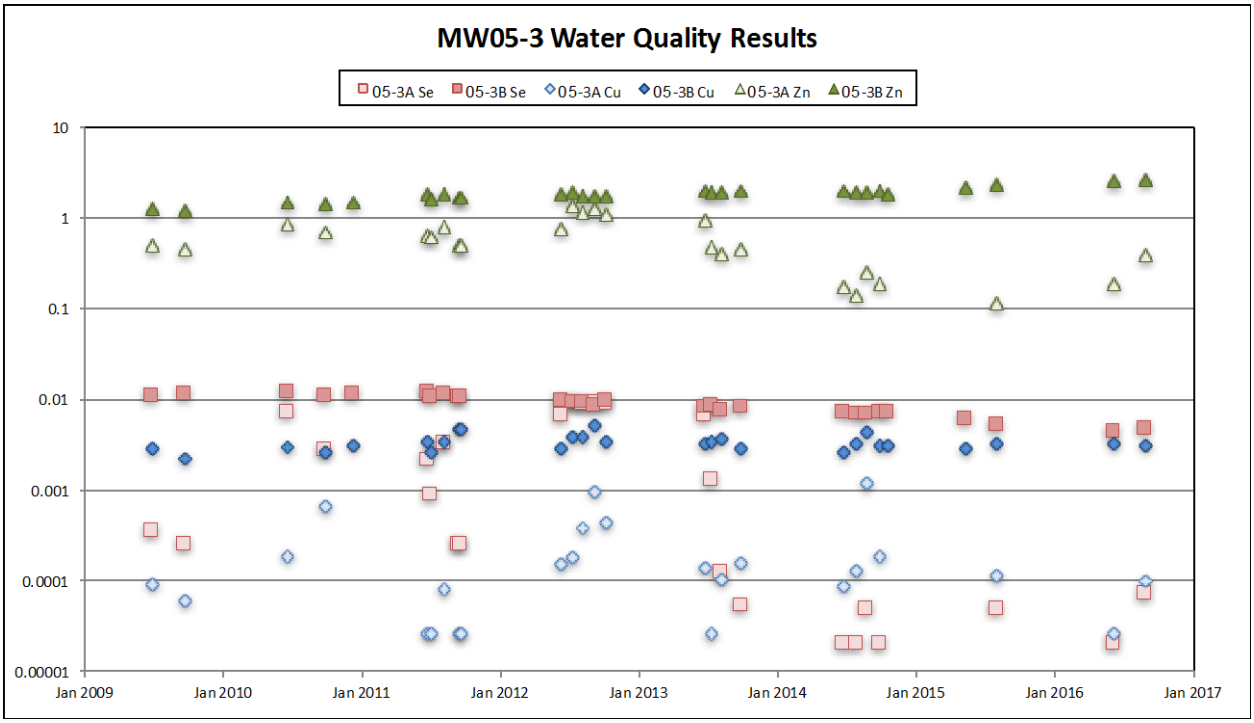


Figure 6-19: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW05-3A and MW05-3B

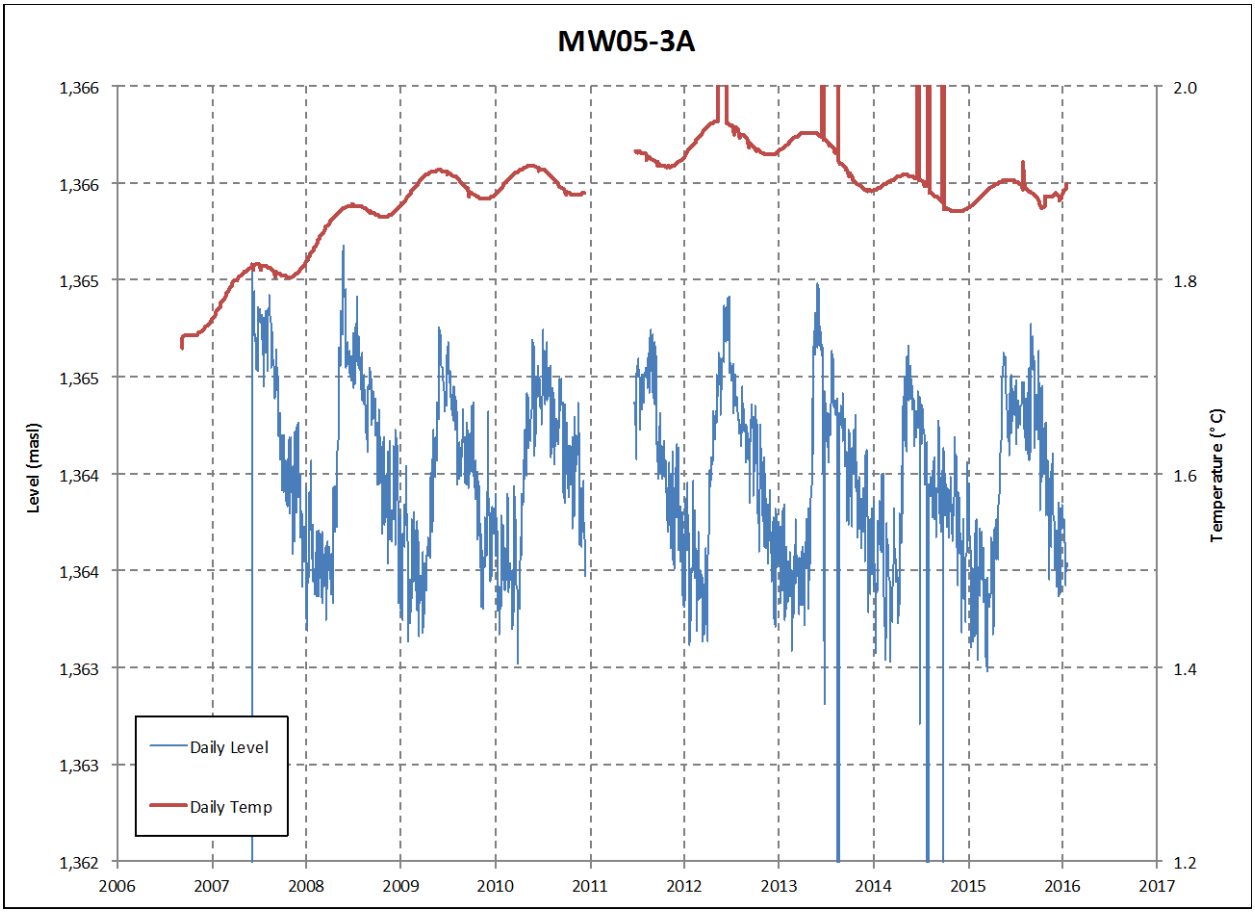


Figure 6-20: Water Levels and Temperature in Groundwater Monitoring Well MW05-3A

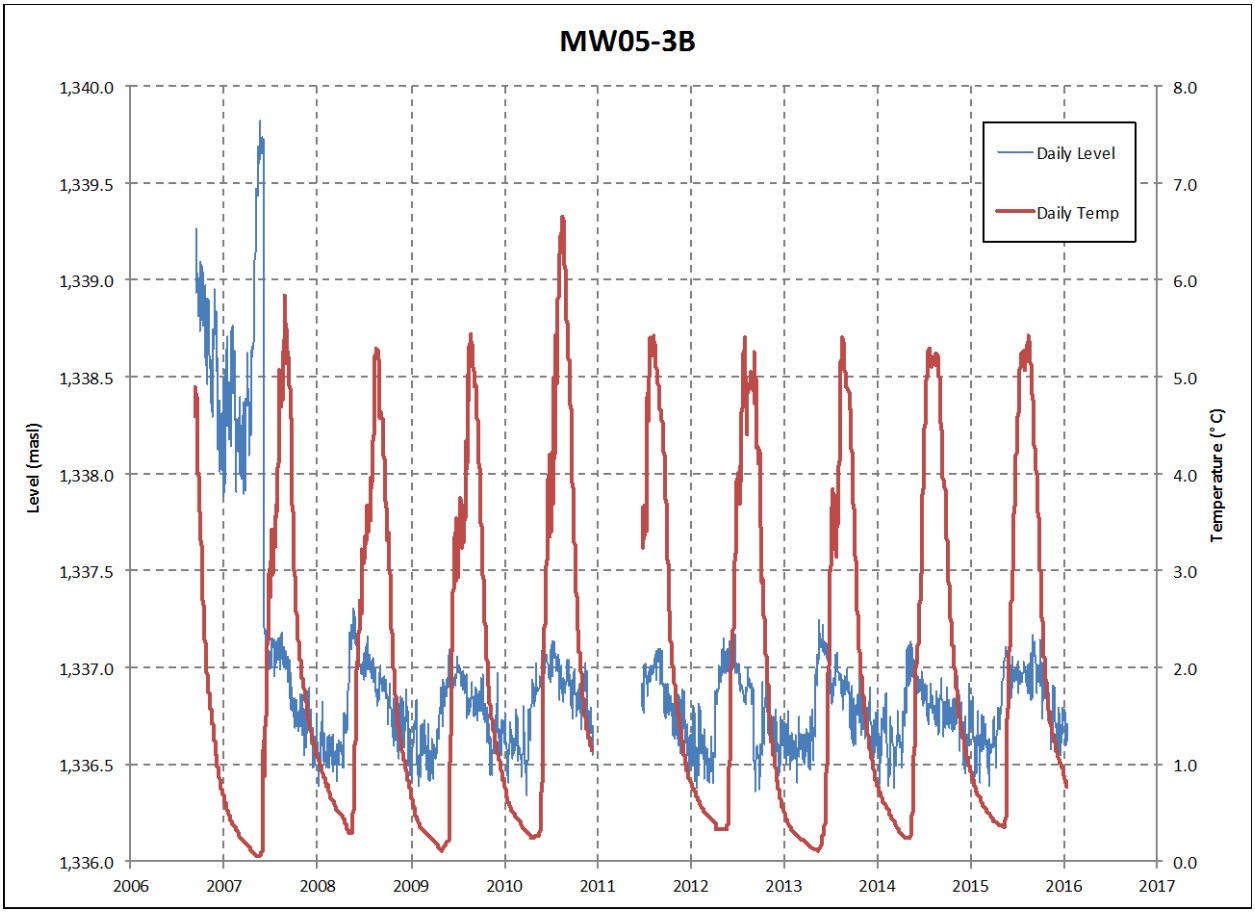


Figure 6-21: Water Levels and Temperature in Groundwater Monitoring Well MW05-3B

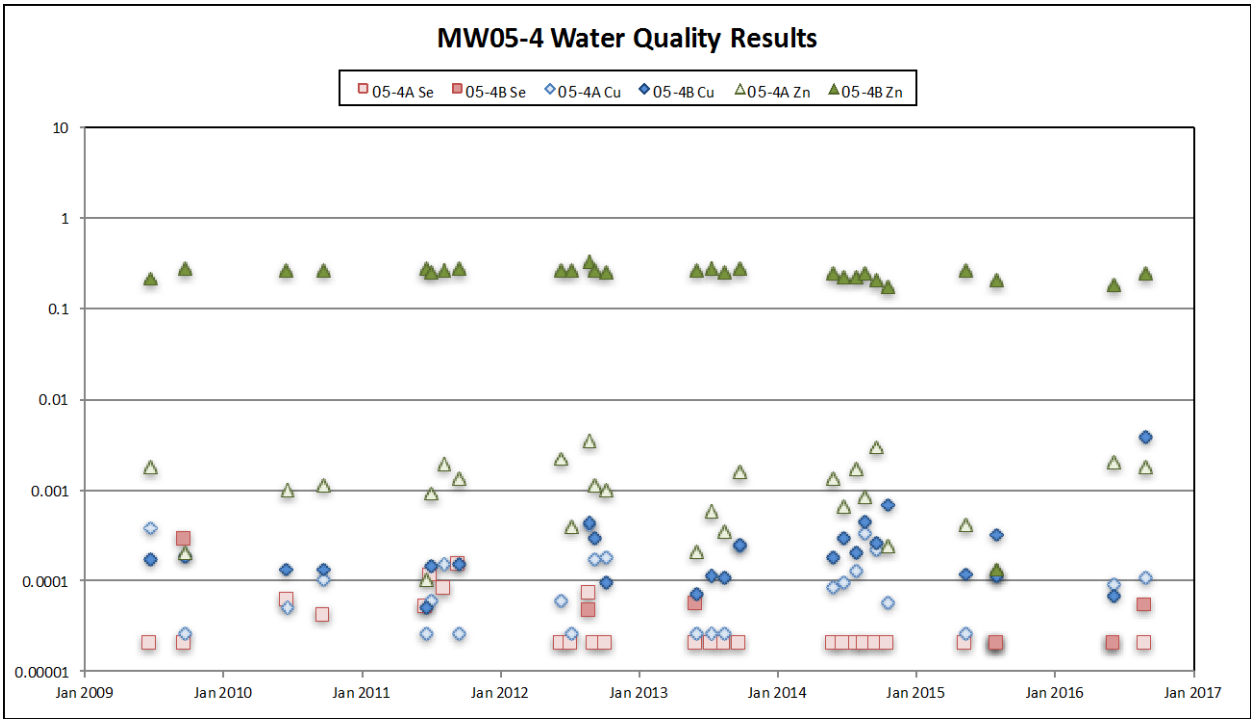


Figure 6-22: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW05-4A and MW05-4B

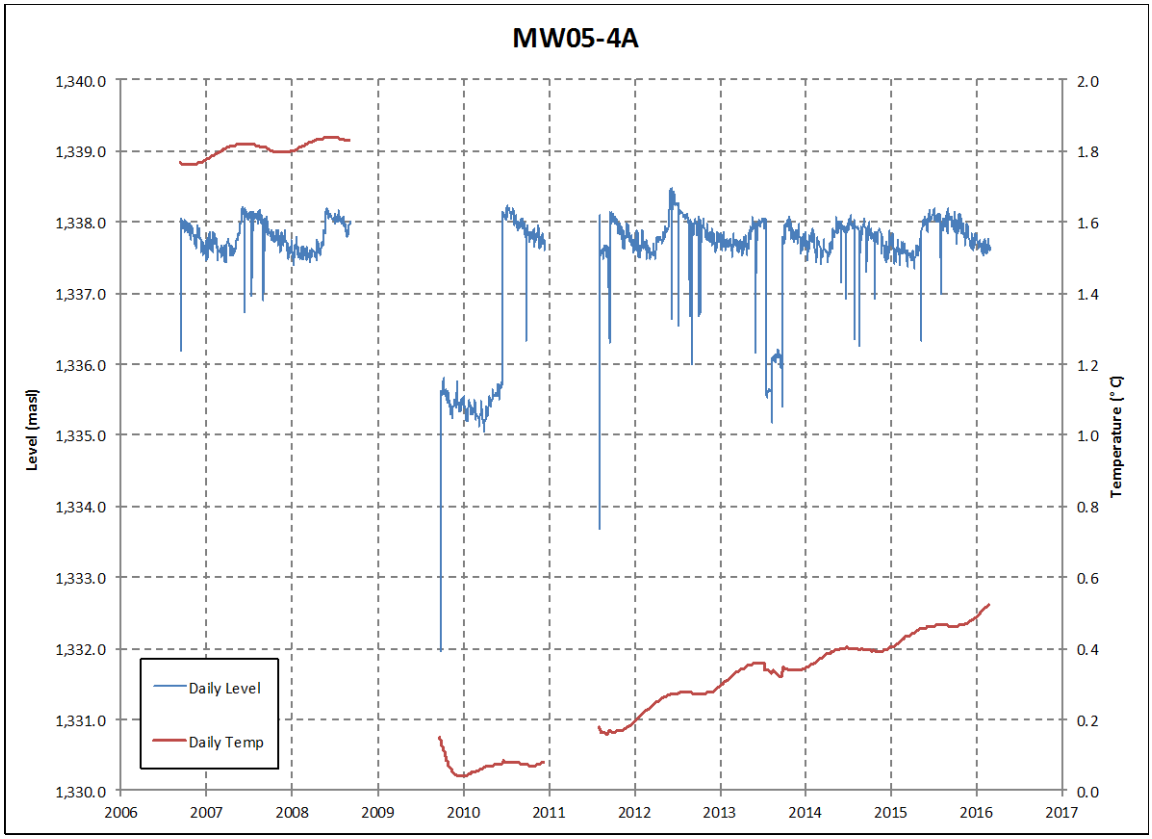


Figure 6-23: Water Levels and Temperature in Groundwater Monitoring Well MW05-4A

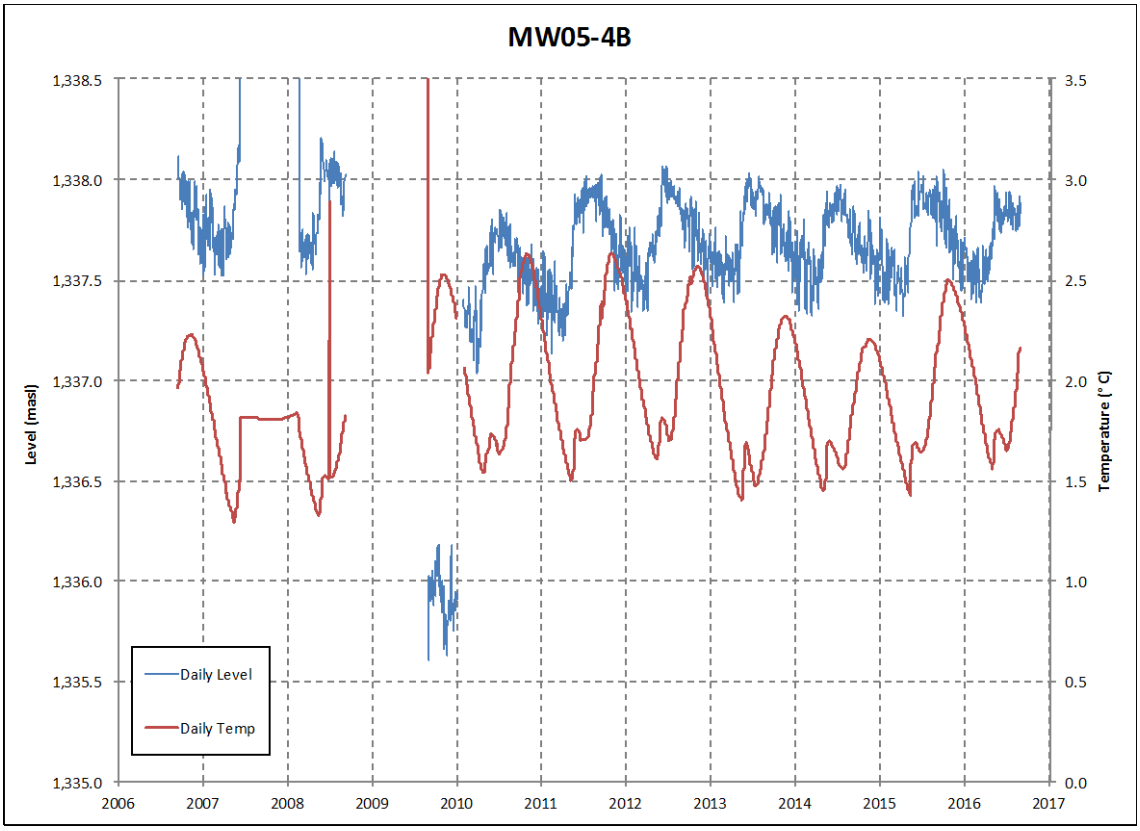


Figure 6-24: Water Levels and Temperature in Groundwater Monitoring Well MW05-4B

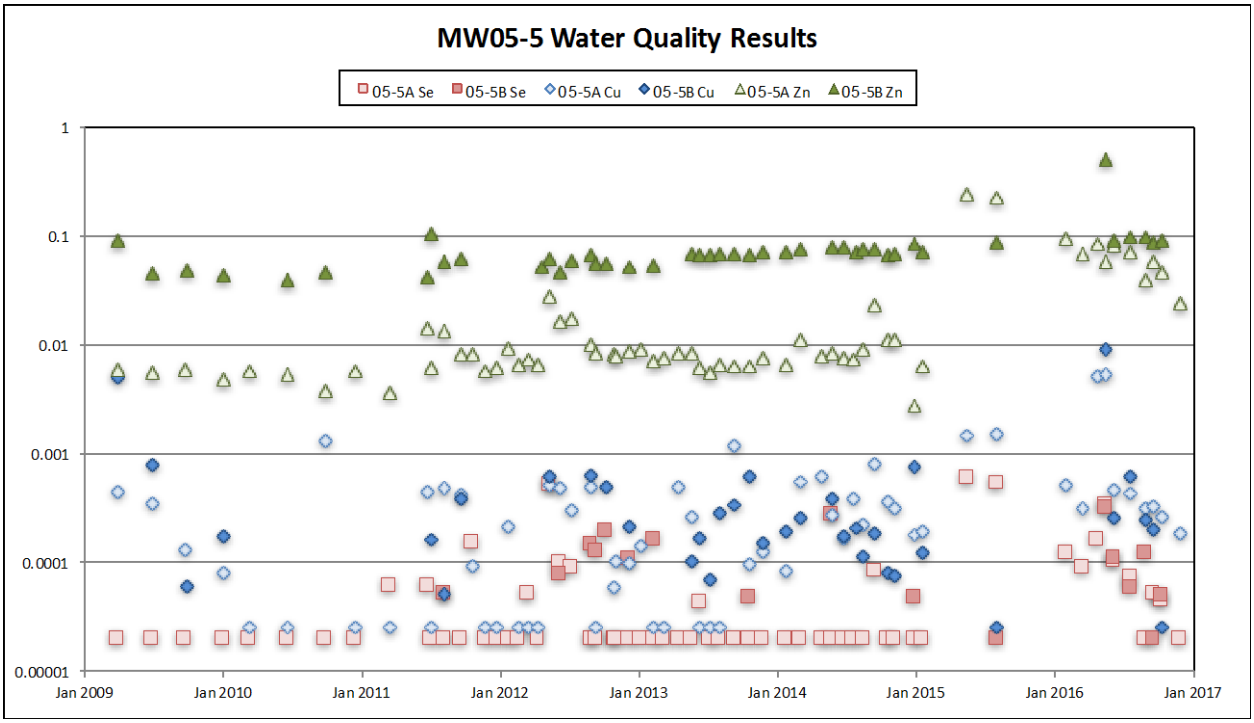


Figure 6-25: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW05-5A and MW05-5B

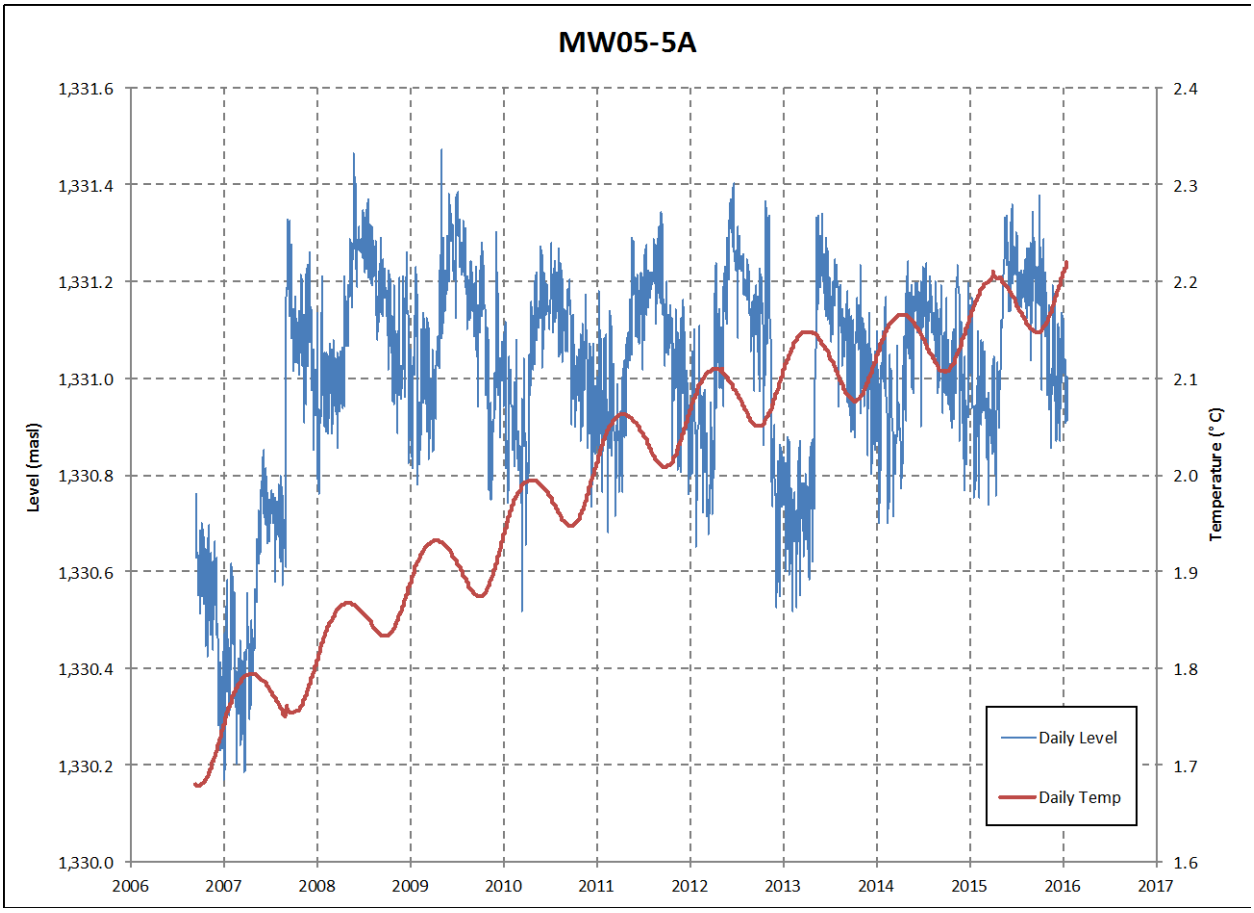


Figure 6-26: Water Levels and Temperature in Groundwater Monitoring Well MW05-5A

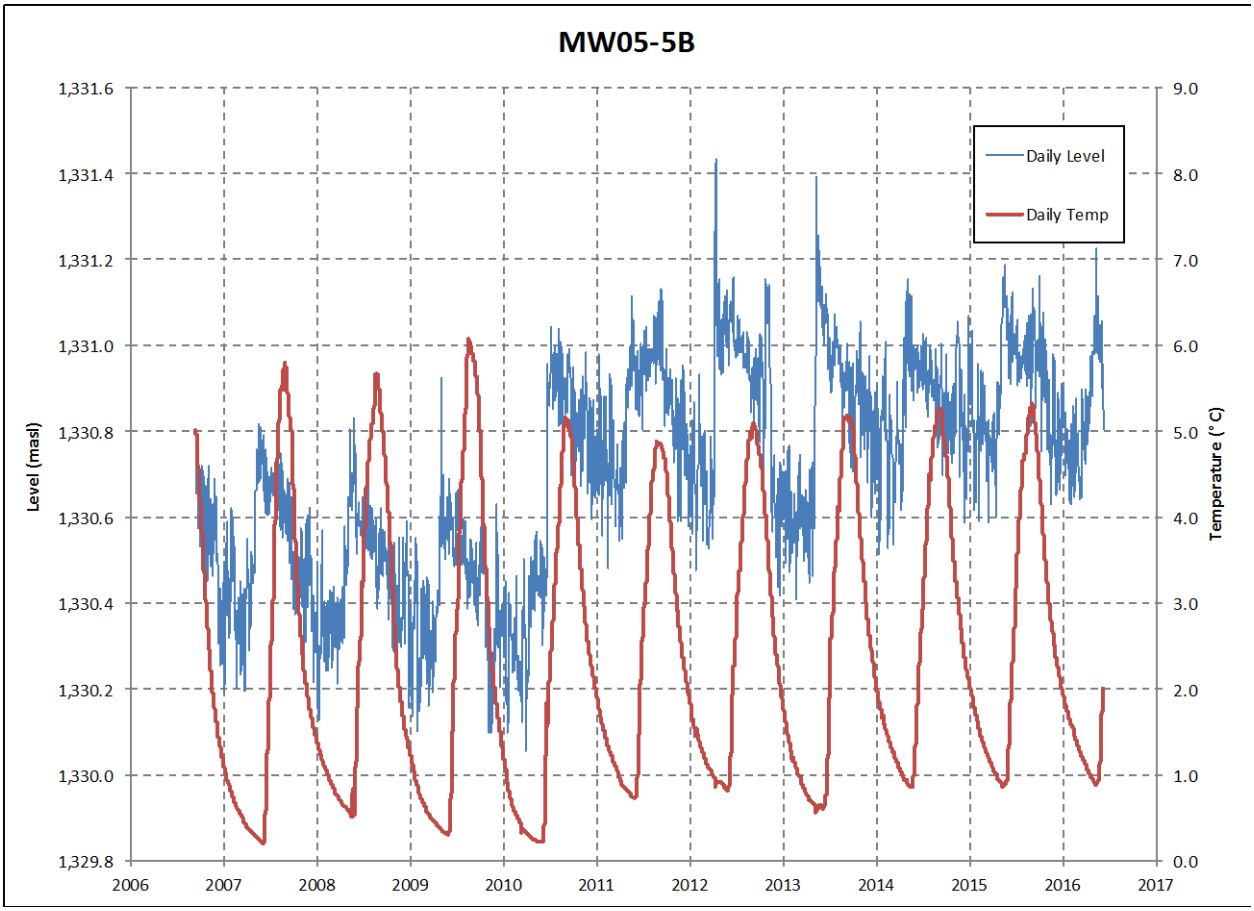


Figure 6-27: Water Levels and Temperature in Groundwater Monitoring Well MW05-5B

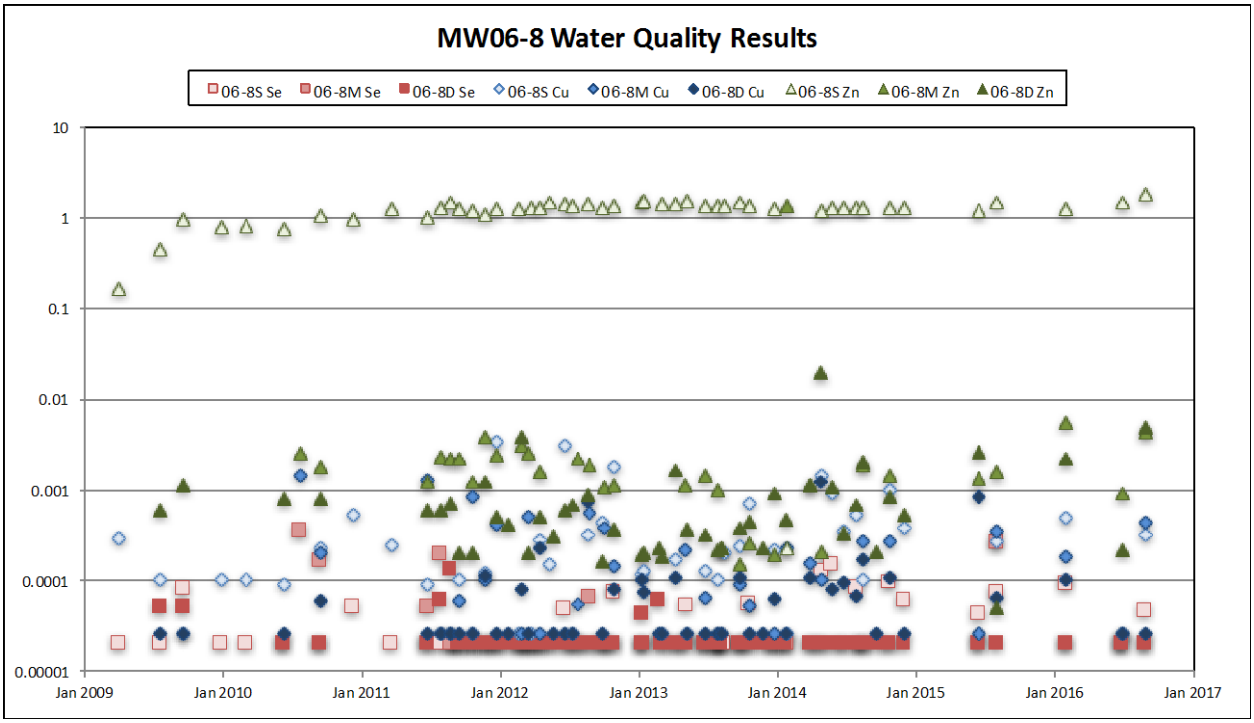


Figure 6-28: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW06-8S, MW06-8M and MW06-8D

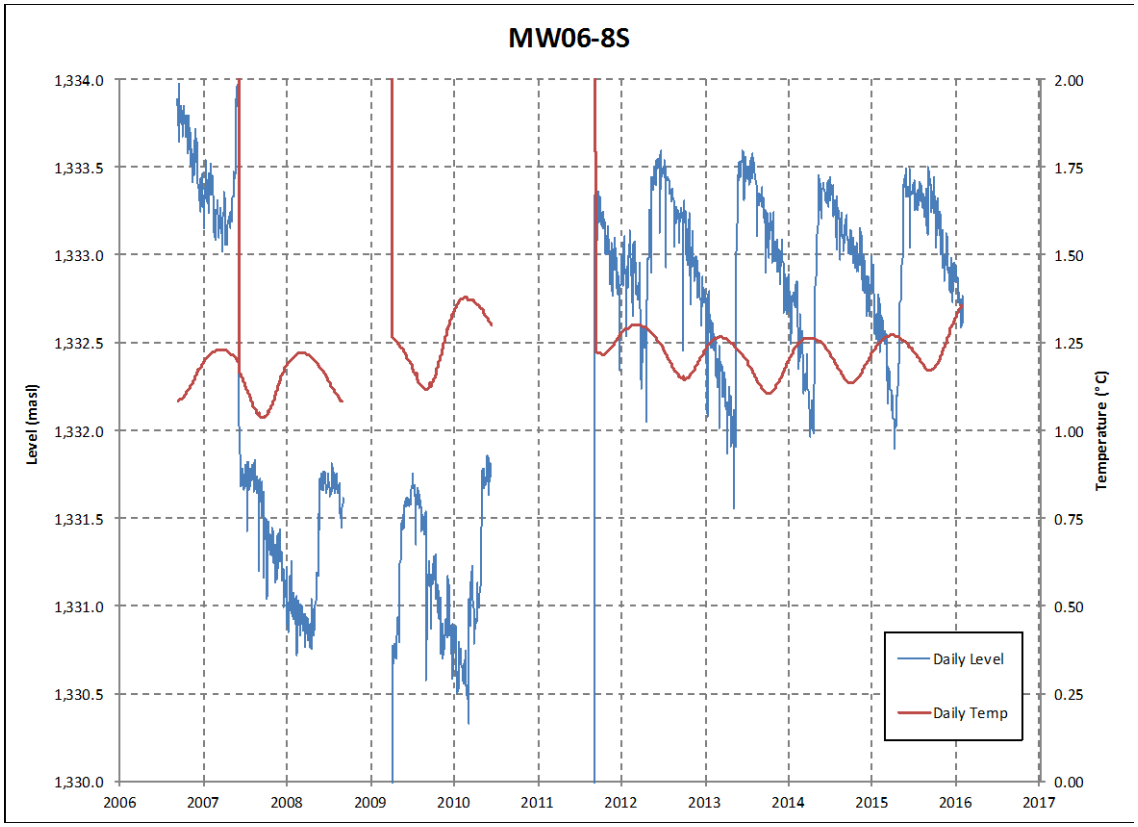


Figure 6-29: Water Levels and Temperature in Groundwater Monitoring Well MW06-8S

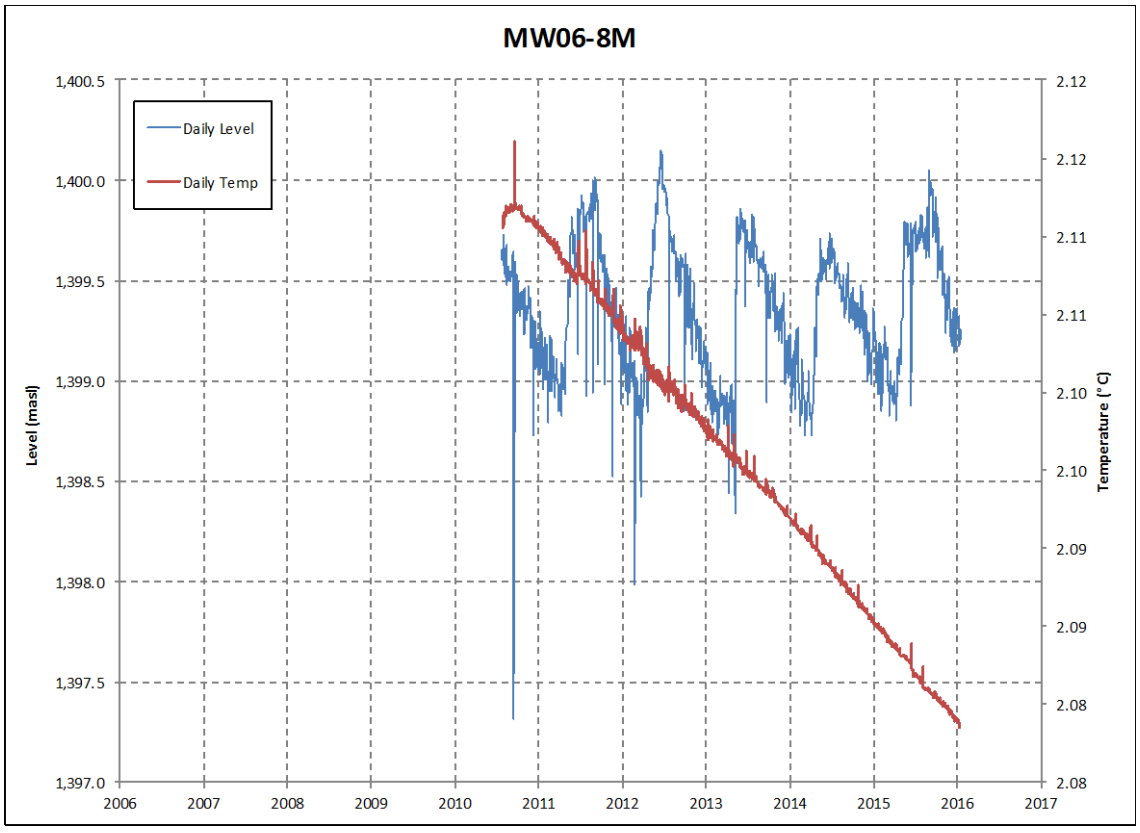


Figure 6-30: Water Levels and Temperature in Groundwater Monitoring Well MW06-8M

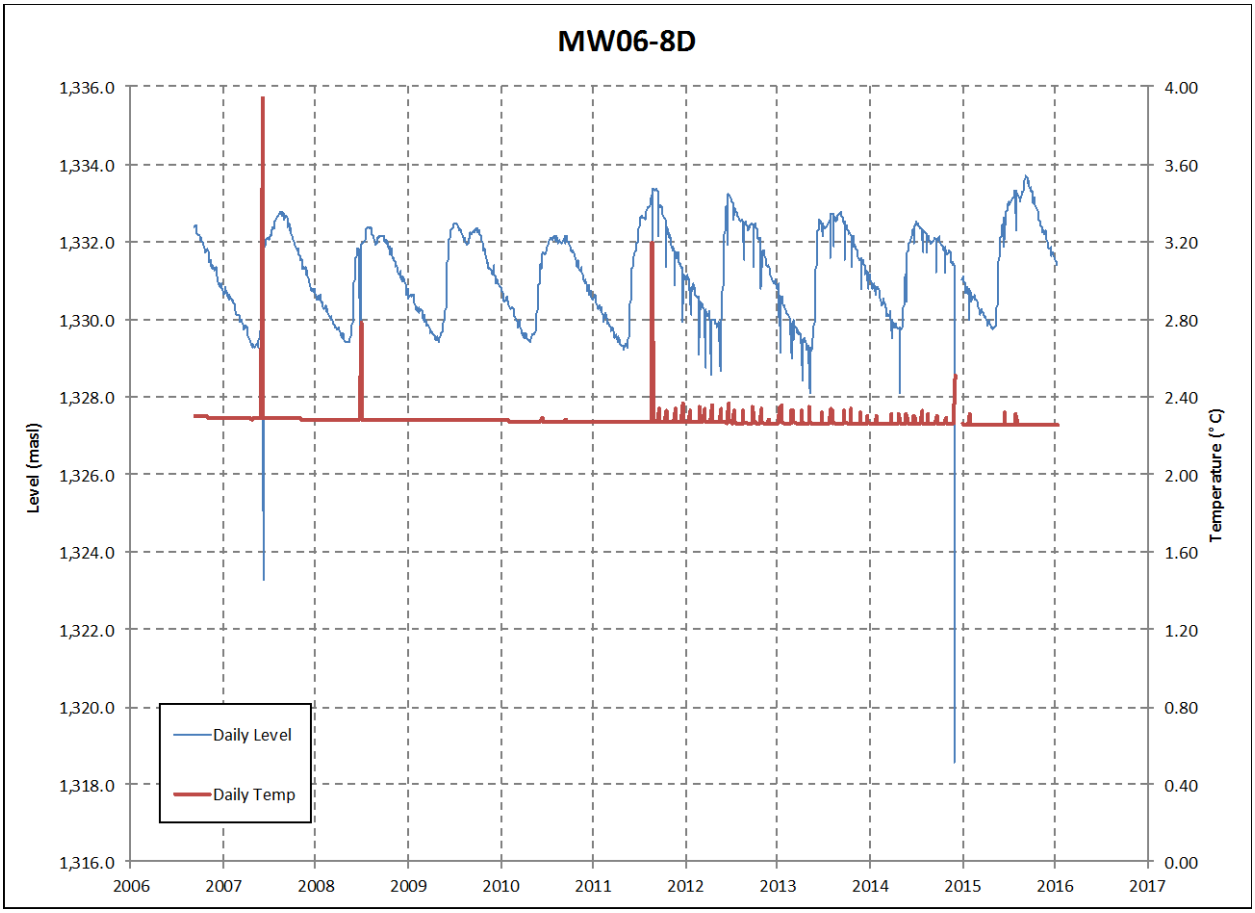


Figure 6-31: Water Levels and Temperature in Groundwater Monitoring Well MW06-8M

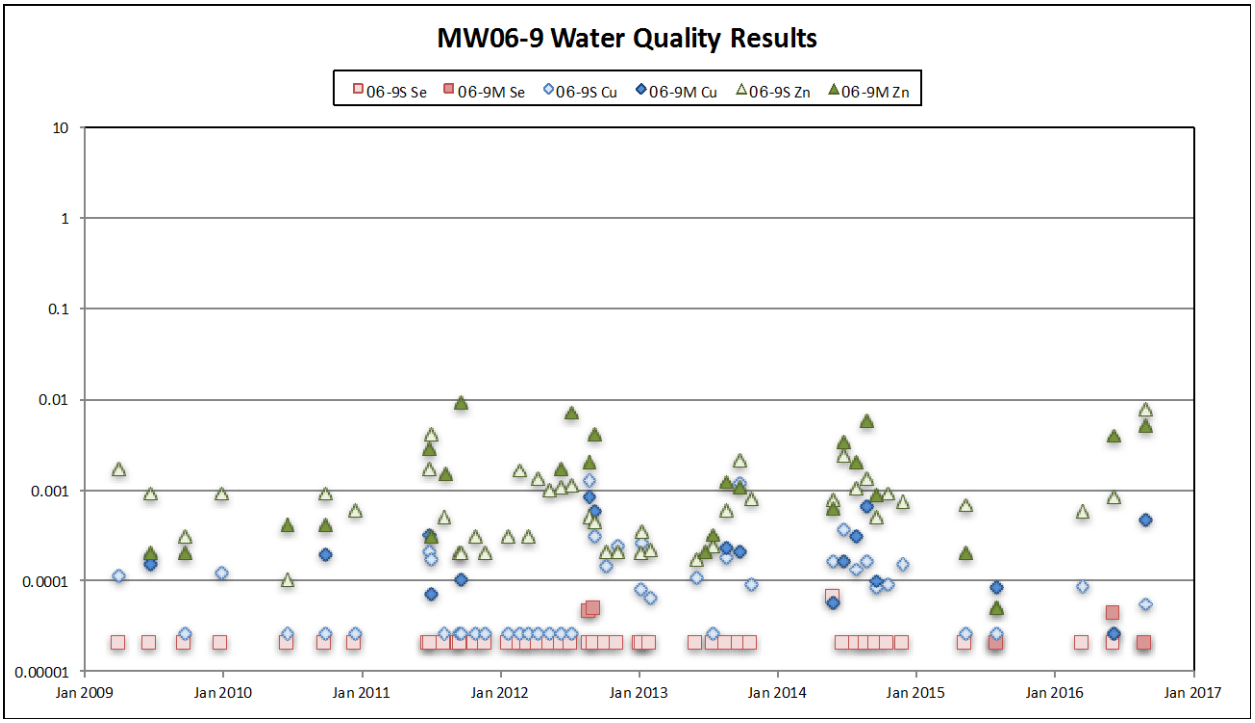


Figure 6-32: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW06-9S and MW06-9M

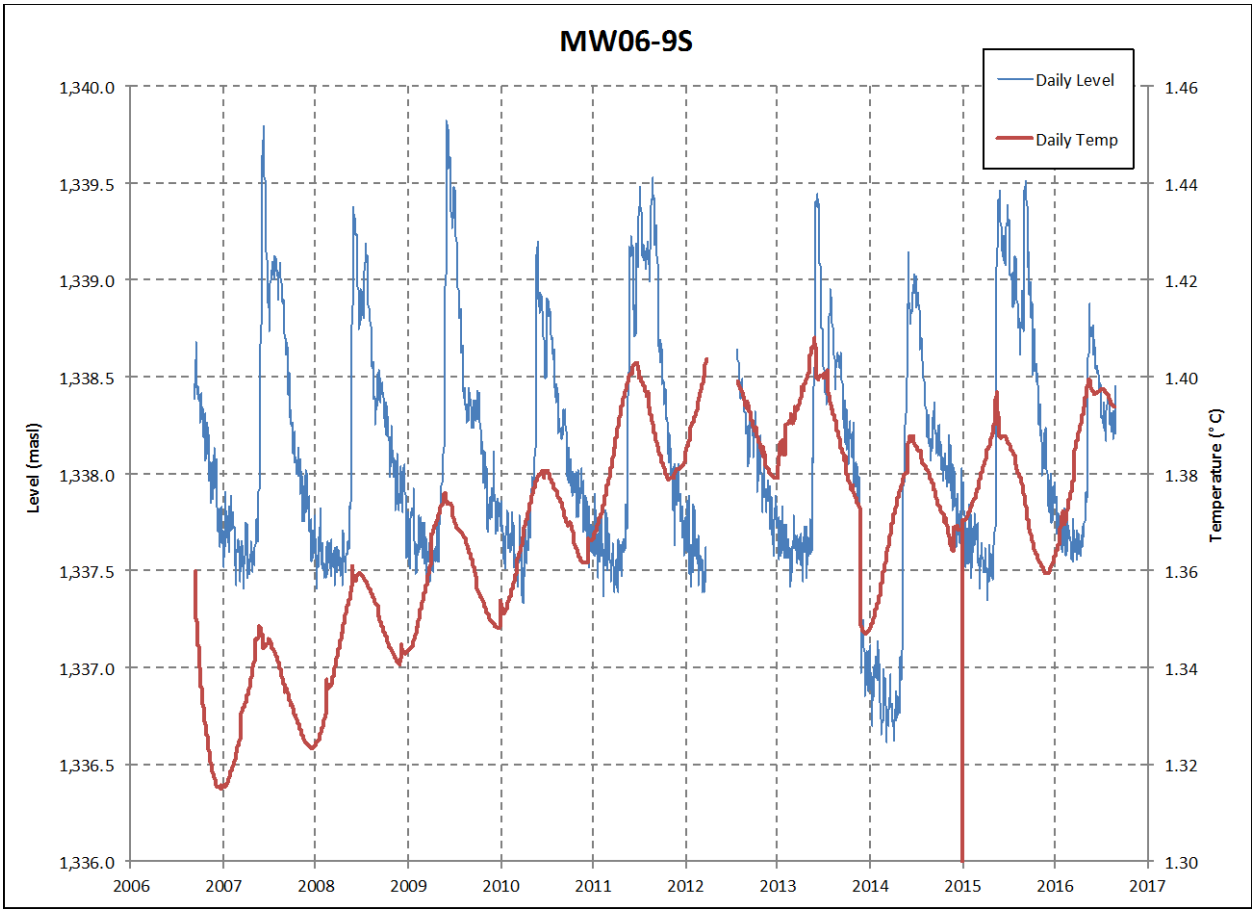


Figure 6-33: Water Levels and Temperature in Groundwater Monitoring Well MW06-9S

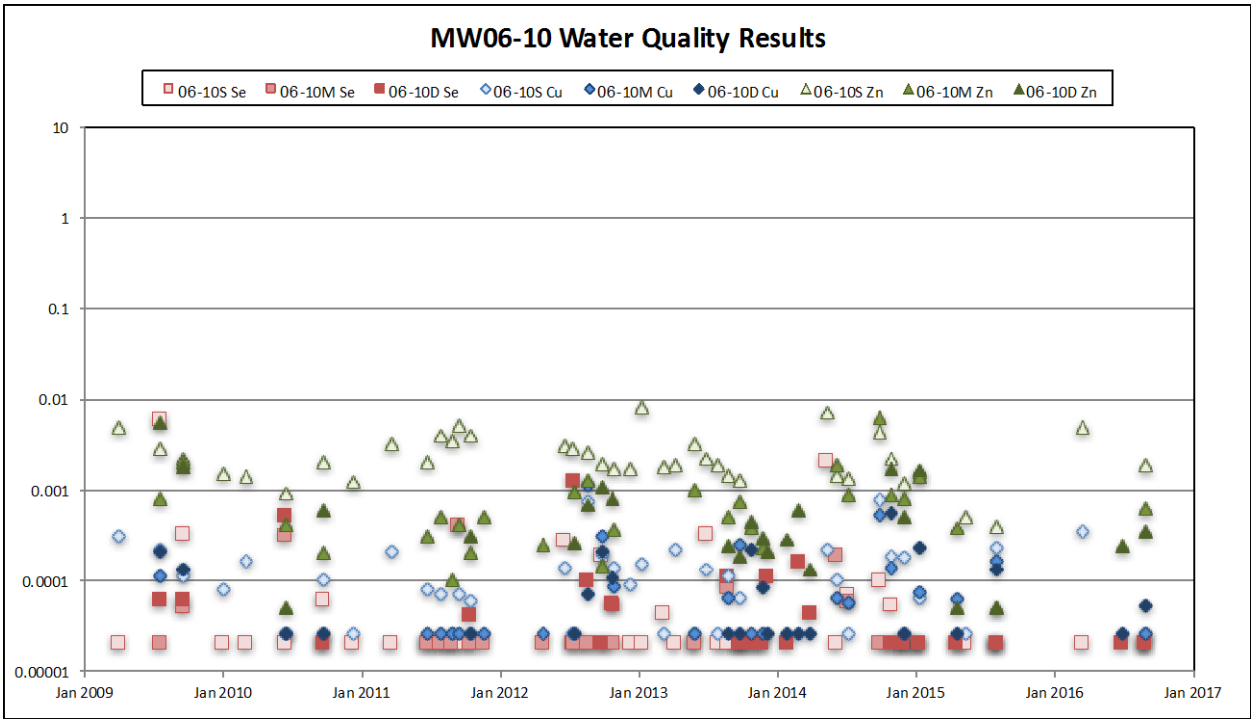


Figure 6-34: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW06-10S, MW06-10M and MW06-10D

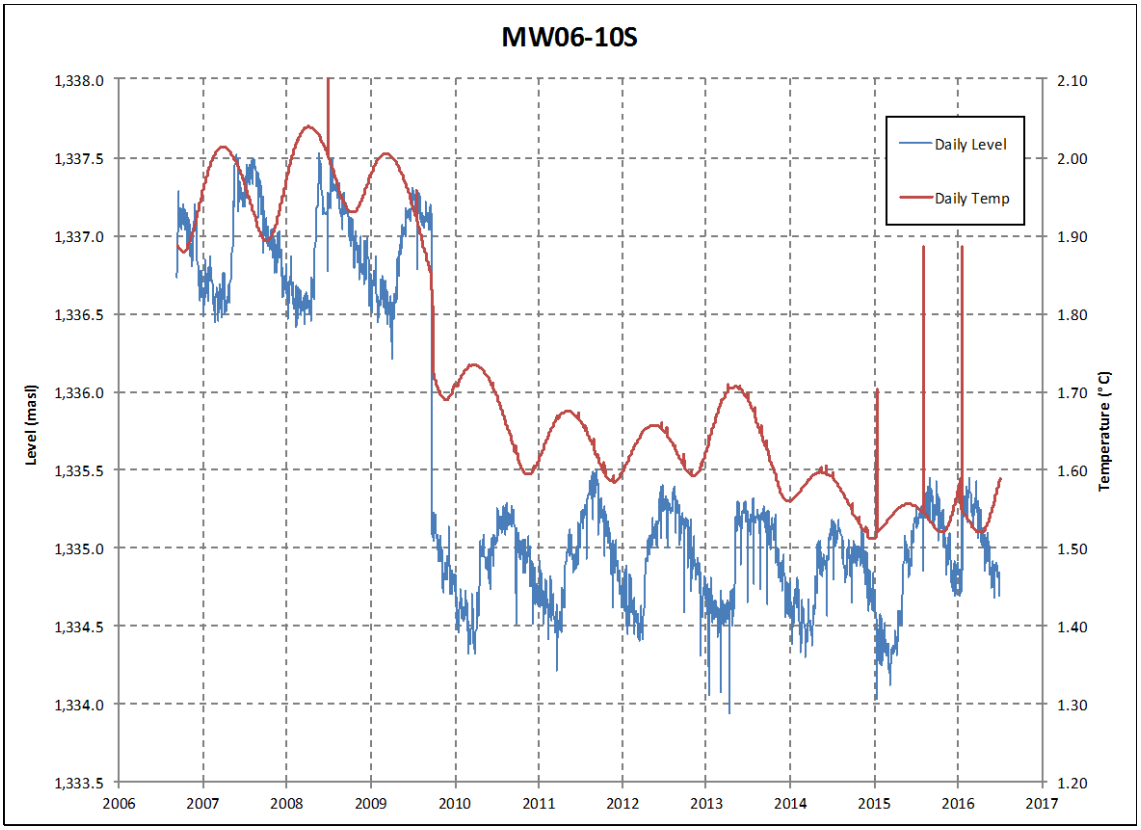


Figure 6-35: Water Levels and Temperature in Groundwater Monitoring Well MW06-10S

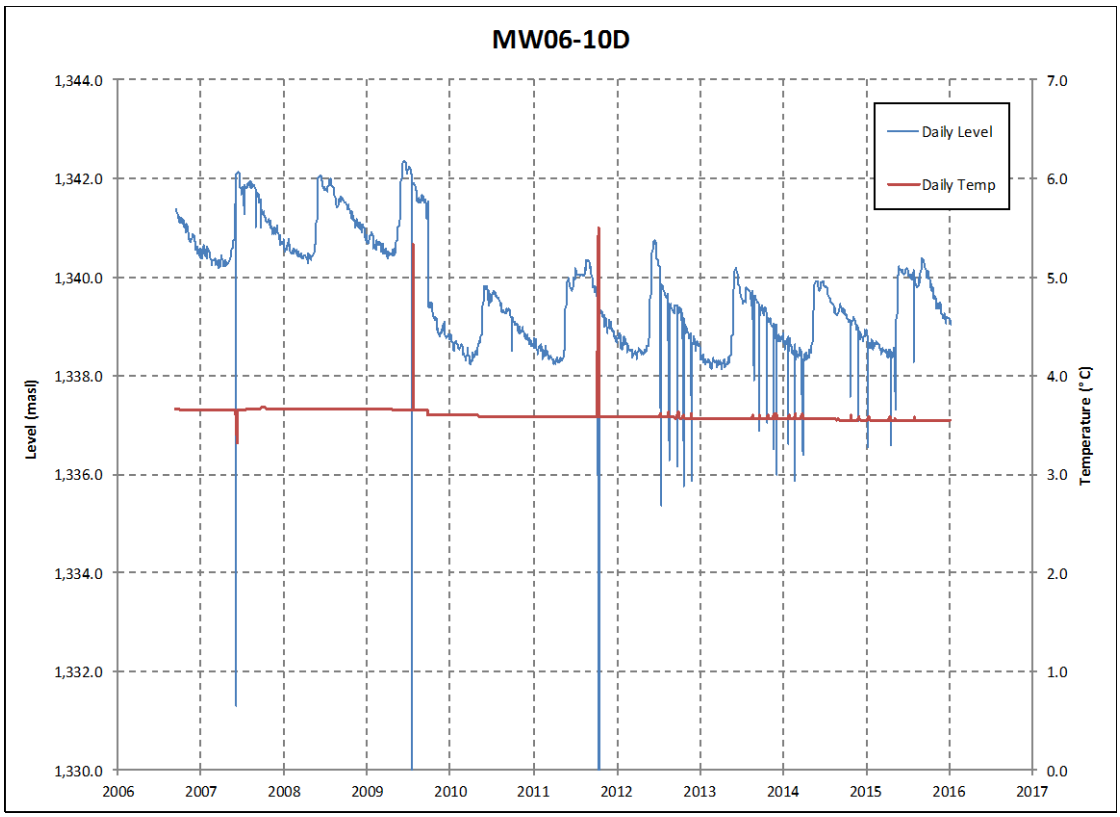


Figure 6-36: Water Levels and Temperature in Groundwater Monitoring Well MW06-10D

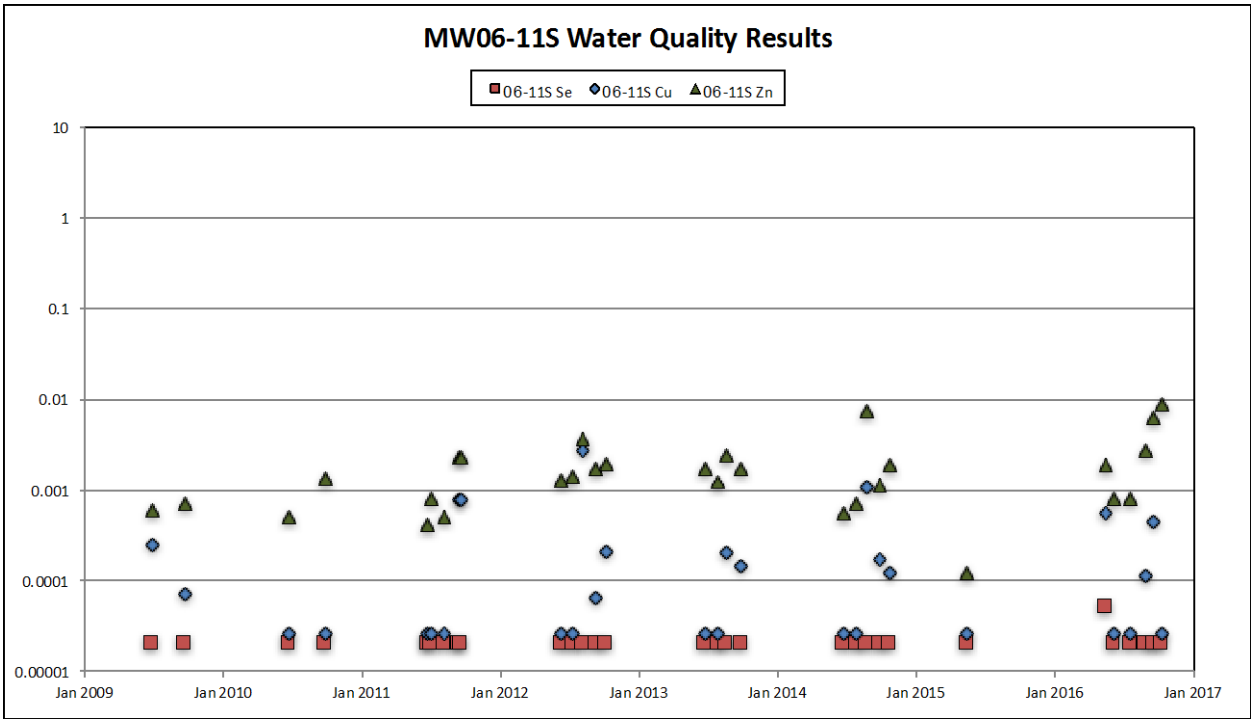


Figure 6-37: Cu, Se and Zn Concentrations in Groundwater Monitoring Well MW06-11S

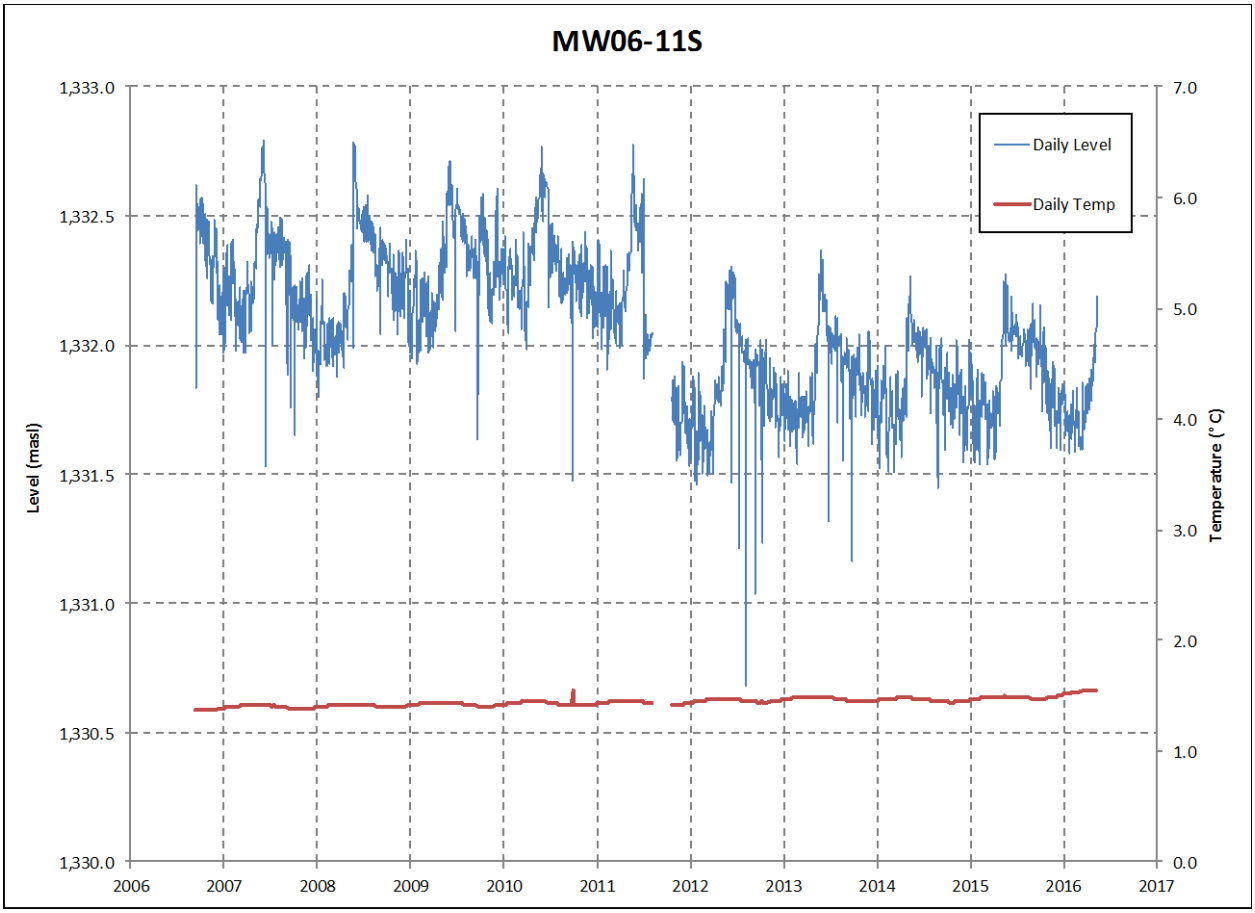


Figure 6-38: Water Levels and Temperature in Groundwater Monitoring Well MW06-11S

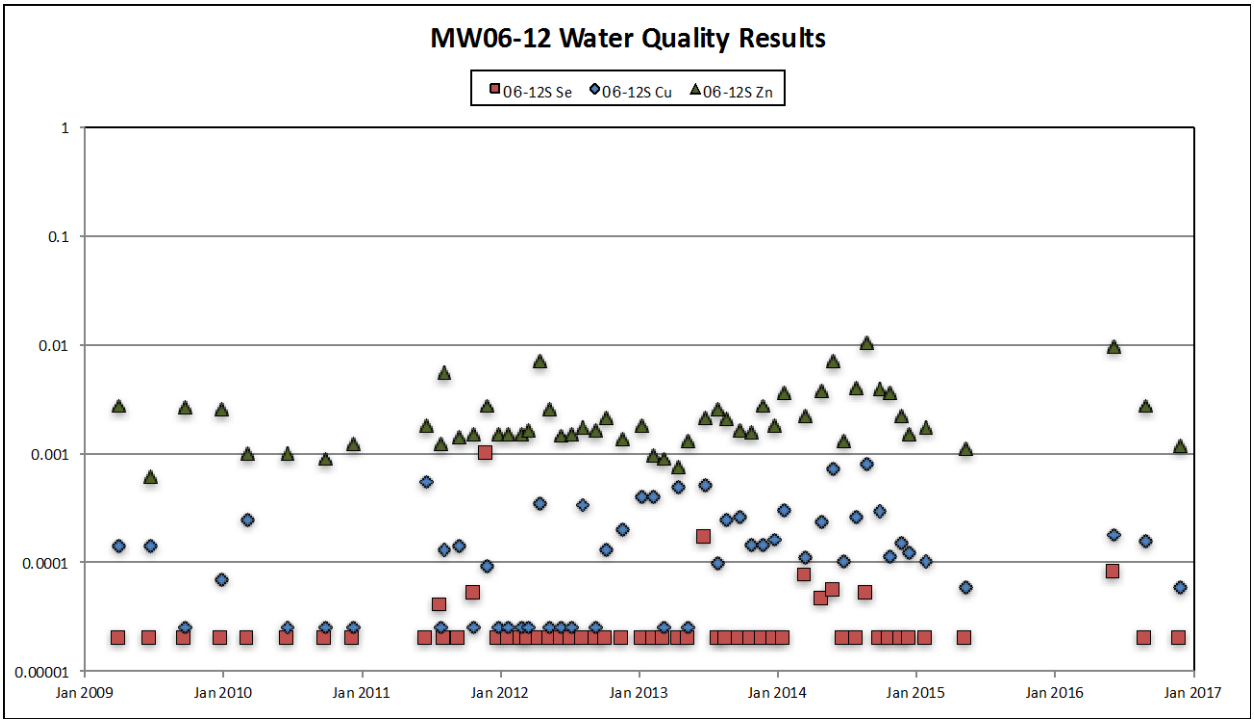


Figure 6-39: Cu, Se and Zn Concentrations in Groundwater Monitoring Well MW06-12S

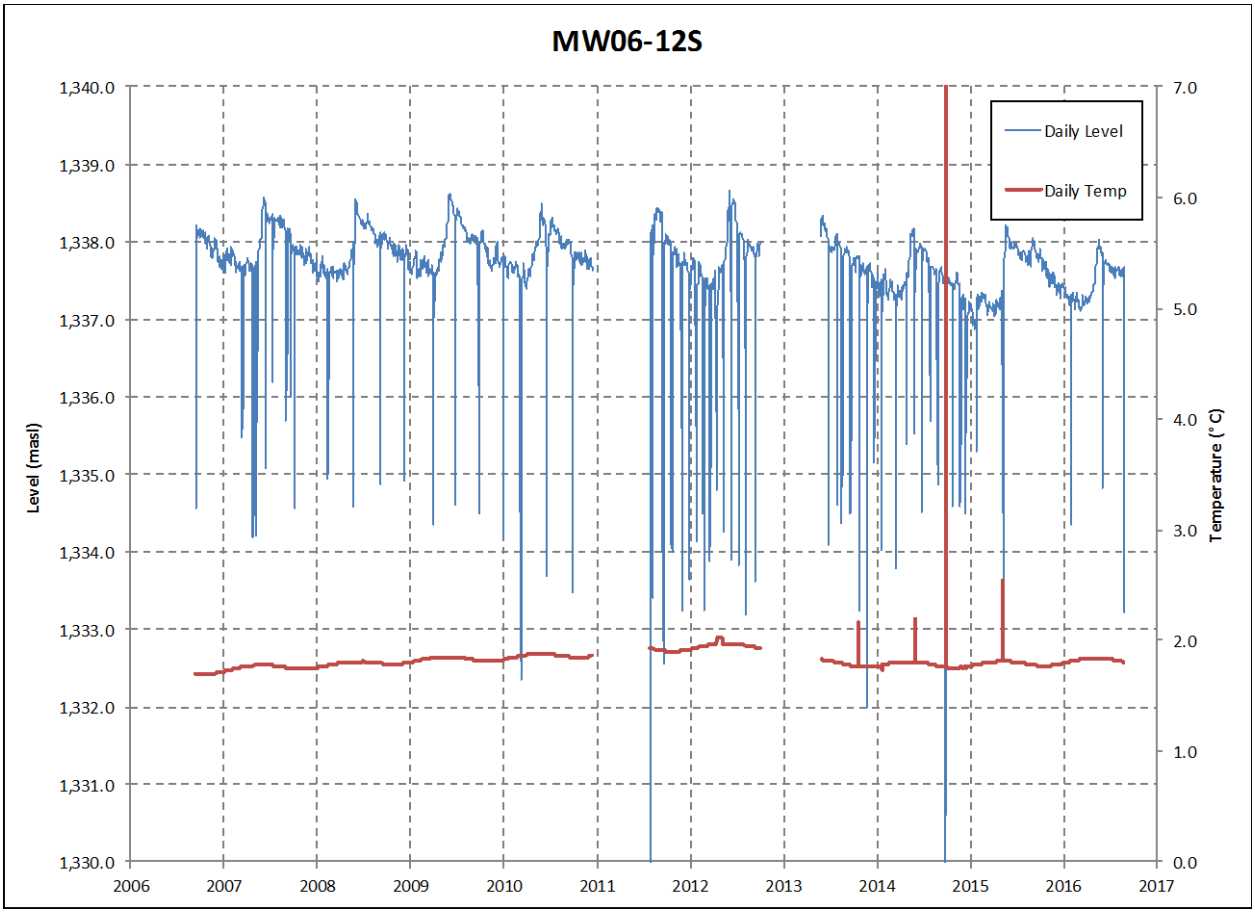


Figure 6-40: Water Levels and Temperature in Groundwater Monitoring Well MW06-12S

6.1.2.3 Go Creek

Groundwater monitoring is conducted in the Go Creek watershed in the headwaters of Go Creek (MW05-1) and upstream of the tailings facility on the north side of the access road (MW05-6). Water quality and levels are measured from the shallow bedrock (MW05-1A and MW05-6A) and alluvial (MW05-1B and MW05-6B) groundwater systems. Loggers are not installed in monitoring wells MW05-1A, MW05-6A, of MW05-6B as they are artesian, and have consistent water levels of 0 m above ground level. The logger in well MW05-1B was corrupted in 2016, and data was no recoverable, and therefore is not provided below.

Although variable, water quality in wells MW05-1 and MW05-6 have been comparable over the 2009 – 2016 monitoring period. Selenium concentrations in the shallow bedrock systems are typically less than the reportable detection limit, shown as ½ the detection limit in Figure 6-41 and Figure 6-42.

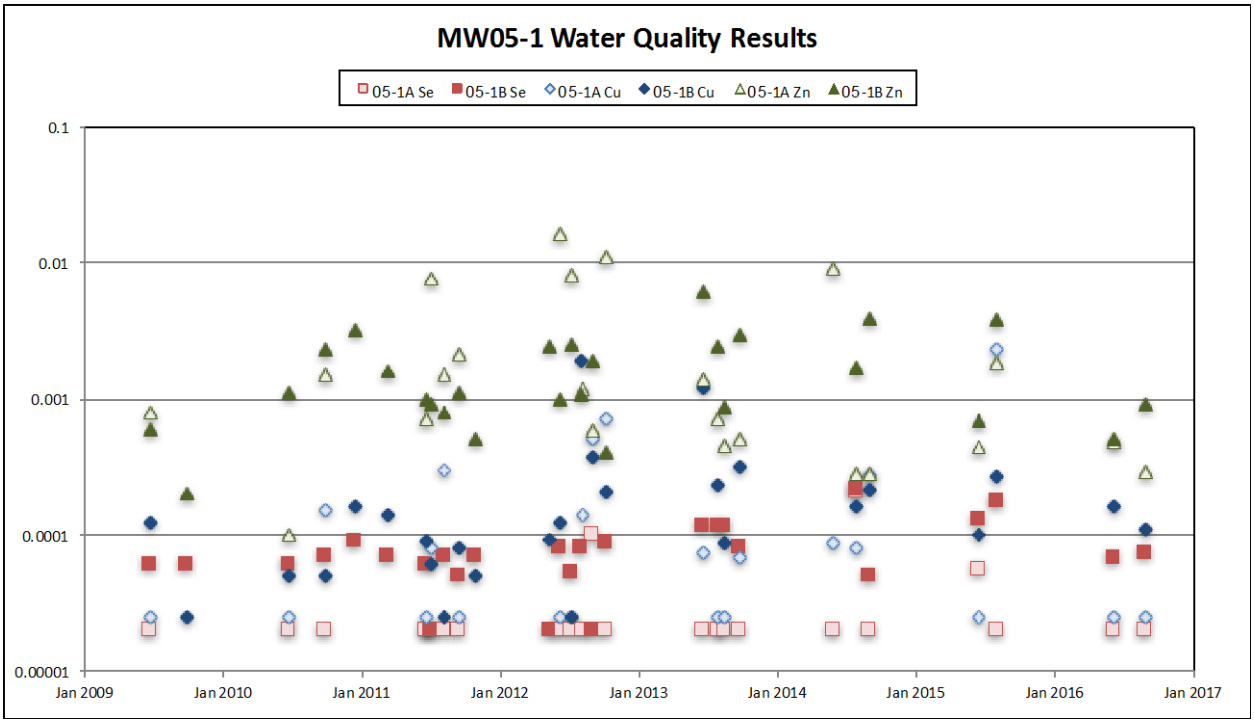


Figure 6-41: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW05-1A and MW05-1B

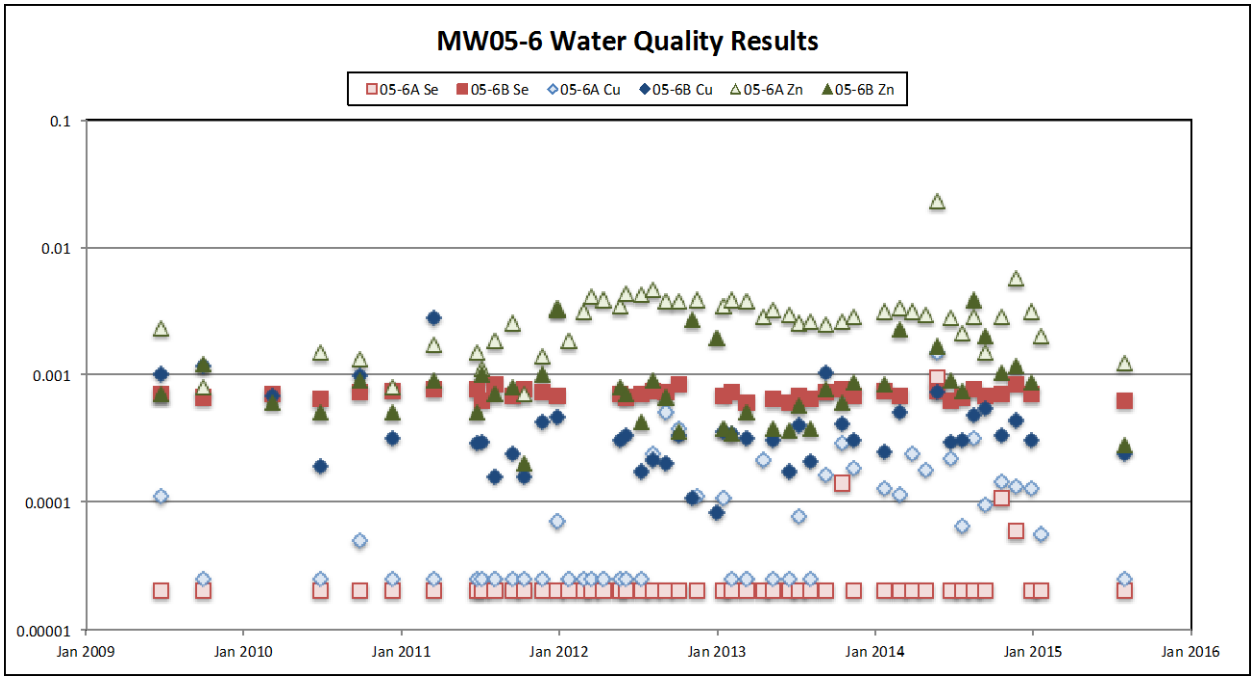


Figure 6-42: Cu, Se and Zn Concentrations in Groundwater Monitoring Wells MW05-6A and MW05-6B

6.2 Aquatic Life and Sediment

The Wolverine Mine triggered Environmental Effects Monitoring under the *Metal Mine Effluent Regulations* (MMER) in 2009. The MMER requires iterative cycles of EEM for the life of a mine project, with a particular focus on fish population and fish health studies, and water quality and benthic invertebrates. YZC submitted the *First Interpretive Report* in 2011 and a *Second Interpretive Report* in 2014.

No aquatic life and sediment sampling was conducted in 2016. A Cycle 3 biological study will be completed in late summer 2017, as per the *MMER EEM Cycle 3 Study Design* submitted September 19, 2016. A *Third Interpretive Report* will be subsequently completed and submitted by December 3, 2017. The study will include benthic inveterbrate monitoring and sediment sampling, as per MMER requirements.

6.3 Wildlife Monitoring

Wildlife monitoring conducted during 2016 consisted of on-site recording of incidental wildlife observations, and documentation of any wildlife related incidents. In 2016 there was a single incident of a ptarmigan hit and killed on the access road.

7 Progressive Reclamation Effectiveness Monitoring Program

No progressive reclamation effectiveness monitoring has been conducted in 2016. Site activities were focused on minimizing liability under Temporary Closure conditions.

8 Biopass System

In late May 2016 Yukon Zinc commenced construction of a field scale bioreactor to test the effectiveness of that bioreactor in treating runoff from waste rock and ore stockpiles. The bioreactor was constructed in between waste pad #2 and the north end of the TSF (Picture 8-1 and 8-2).



Picture 8-1: Bioreactor Filled with Substrate Material (July 16, 2016)



Picture 8-2: Bioreactor Influent System (July 16, 2016)

Water quality samples were taken in August September and October from the influent and effluent of the bioreactor. The results indicate that the effluent from the bioreactor is below the Type A WUL discharge limits for all limited parameters, except for iron and TSS, which is typical of reducing, anoxic

systems. TSS concentration increases are also likely just a relic of solids settling, which will likely decrease as the bioreactor system reaches steady state.

The results are also presented graphically in Figure 8-1 through Figure 8-4 for cadmium, copper, selenium and zinc, respectively. The concentrations of metals in the effluent is consistently below the discharge limit for those metals, and in the case of cadmium and zinc, by orders of magnitude.

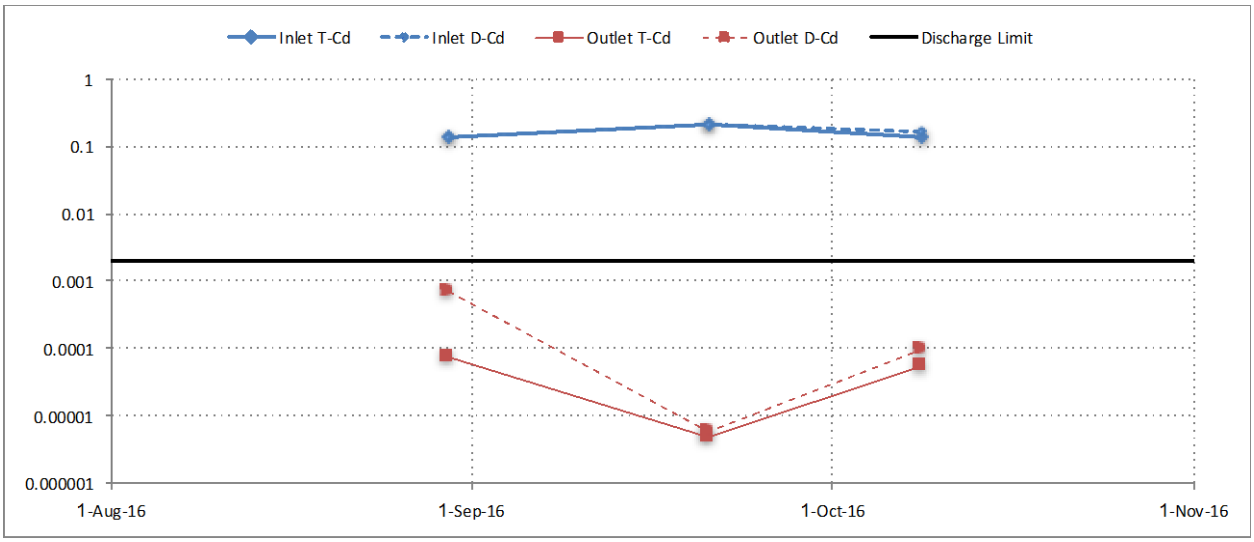


Figure 8-1: Pad 2 Bioreactor Inlet and Outlet Cadmium Concentrations (logarithmic)

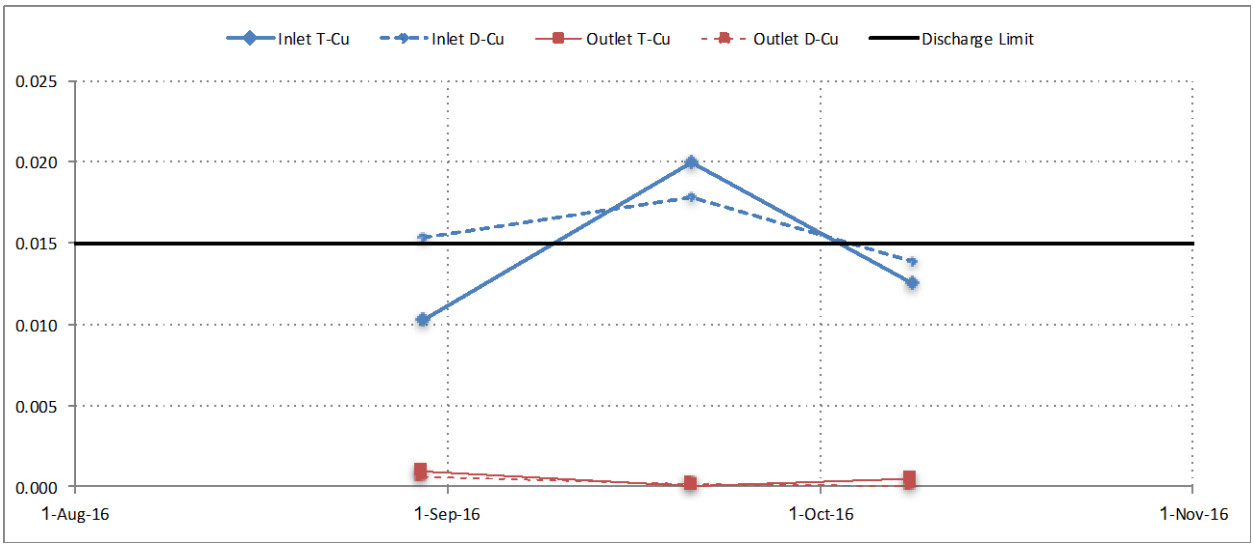


Figure 8-2: Pad 2 Bioreactor Inlet and Outlet Copper Concentrations

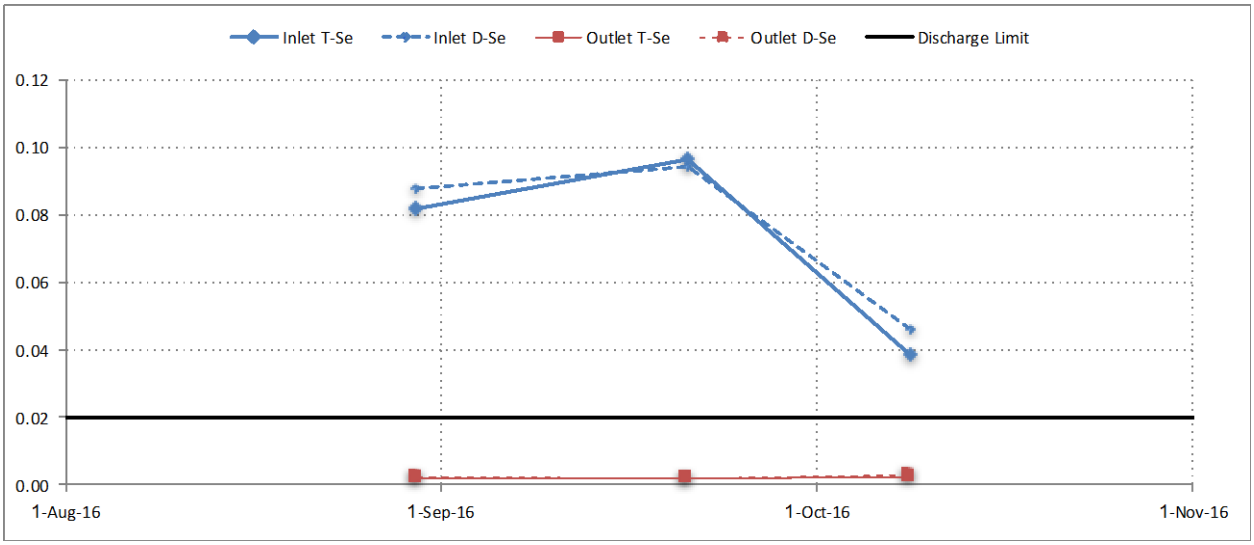


Figure 8-3: Pad 2 Bioreactor Inlet and Outlet Selenium Concentrations (logarithmic)

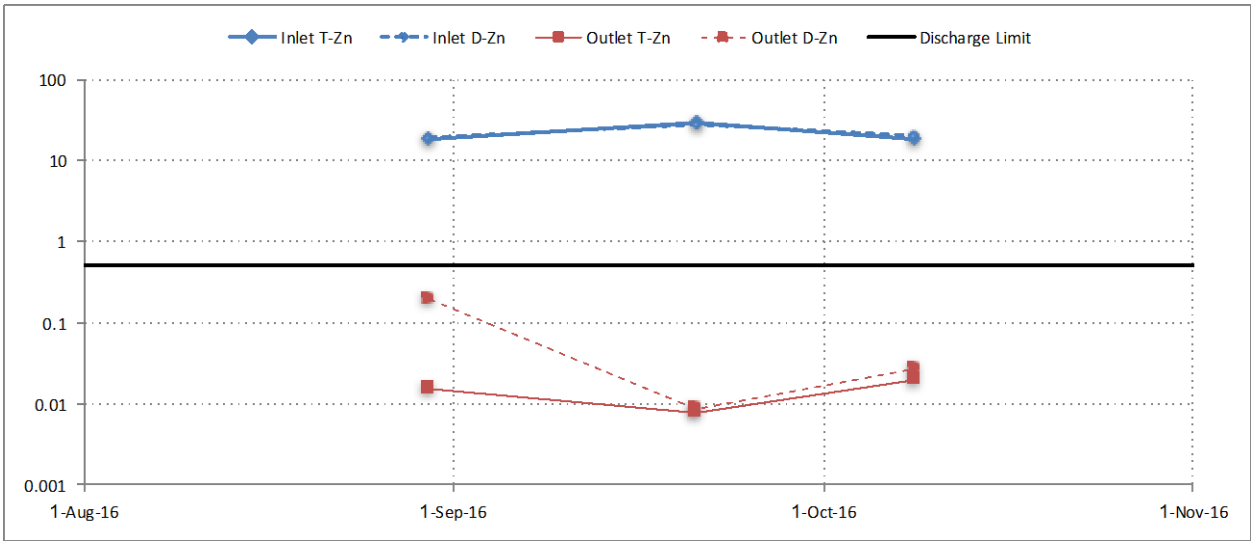


Figure 8-4: Pad 2 Bioreactor Inlet and Outlet Zinc Concentrations

9 Geochemical Testwork

Geochemical testwork at the Wolverine Mine was limited to humidity cell testwork, during construction. There were no construction activities in 2016, and no geochemical characterization samples were taken. These humidity cells have since been decommissioned. Humidity cells OA and OD were decommissioned February 3, 2012 and in April 2012 a request was sent to the Yukon Government Department of Energy, Mines and Resources to for approval to shut down the remaining seven operating cells. Approval to shut down the cells was received on May 11, 2012, and the cells were shut down in June 2012.

10 Environmental Incidents

There was one reportable spill (defined by the *Yukon Spills Regulations* as "a release of a hazardous substance to the environment in quantities above the spill reporting thresholds, or any amount of spill onto a watercourse") of water from the seepage pond on May 4, 2016. The spill was immediately reported and the full spill report submitted to EMR within 10 days.

11 Socio-Economic Assessment

The EA Screening Report requires that YZC report annually on the following:

- The number of Yukoners and non-Yukoners employed at the mine; and,
- The value of goods and services procured from and payments made to Ross River, Watson Lake and the Yukon as a whole.

Over the course of the year, 5 Yukoners and 7 non-Yukoners were employed at the Wolverine Mine by YZC.

The value of goods and services procured from and payments made to vendors in the Yukon as a whole in 2016 is estimated at $1,962,932. This does not include payments via COD (cash on delivery) or via credit cards. No payments were made to Ross River or Watson lake service providers in 2016 and the remaining suppliers were almost exclusively in support of C&M operations, including such major items as spare parts and supplies for site maintenance, fuel and food. The majority of costs were distributed over 8 major vendors in Yukon.

12 Project Development and Production for 2017

There is currently no plan for development and production for 2017.

13 References

2015. Shin, W. Underground Inspection Report (Re-Entry and Dewatering Plan). Prepared for Yukon Zinc Corporation. May 7, 2015.

2016. Shin, W. Watertight Bulkhead Design & Calculation. Prepared for Yukon Zinc Corporation. May 15, 2016.

Appendix A: Tailings Storage Facility and On-Site Earth Structures 2016 Inspection, Knight Piesold Ltd., December 2, 2016

YUKON ZINC CORP.
WOLVERINE MINE





TAILINGS STORAGE FACILITY AND ON-SITE EARTH STRUCTURES 2016 INSPECTION

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VA101-677/1-1
Rev 0
December 2, 2016

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FS 64925
EMS 550121
OHS 550122

YUKON ZINC CORP.
WOLVERINE MINE

TAILINGS STORAGE FACILITY AND ON-SITE EARTH STRUCTURES
2016 INSPECTION
VA101-677/1-1

Rev	Description	Date
0	Issued in Final	December 2, 2016

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EXECUTIVE SUMMARY

The Wolverine Mine, owned by Yukon Zinc Corporation is a zinc-silver-copper-lead-gold mine located in southeast Yukon approximately 280 km east of Whitehorse and 170 km northwest of Watson Lake. The mine commenced operations in 2009 and operated at a production rate of approximately 1,700 tonnes per day. The mine ceased operations in January 2015 and is currently operating under Care and Maintenance conditions.

Tailings are stored in a fully lined Tailings Storage Facility (TSF) located south of the mill facility. The Engineer of Record (EoR) for this facility is Klohn Crippen Berger (KCB).

Yukon Zinc Corporation requested Knight Piésold (KP) complete the 2016 TSF Dam Safety Inspection (DSI) and the inspection of the on-site earth structures. A DSI is typically completed by the EoR; however Yukon Zinc retained KP to complete an independent inspection of the TSF for 2016. This independent review report should be forwarded to the EoR, with the recommendations being addressed by them to ensure they are consistent with the design and operating objectives of the TSF. The EoR was not interviewed as part of the DSI. KP is willing to assist with ongoing, independent reviews and support for the TSF, however it is recommended DSI's going forward be completed by the EoR who are intimately involved in the design of the facility.

The 2016 site inspection was completed by Les Galbraith, P.Eng. of KP. The results of the 2016 site inspection are as follows:

Tailings Storage Facility

- The TSF has a Very High dam classification according to the 2007 CDA guidelines.
- There were no construction activities in 2016.
- The TSF is accumulating water and the supernatant pond covers the entire TSF basin.
- There have been no significant changes to the dam or instrumentation monitoring records since the previous inspection. However:
  - The two inclinometers installed in the south dam are no longer functioning.
  - The five survey monuments at the south dam have not been read since January 2015.
  - The slump reported in the 2015 DSI at the north end of the TSF still exists, although the liner is still intact. The slump has resulted in a loss of the liner anchor trench and a lowering of the crest by approximately 1.5 m in this area. The progression of the slump is being monitored by site staff. Defects to the liner in this area are above the water level and the spillway invert.
- The slump is likely attributed to groundwater flow which has eroded the subsurface materials. It is recommended Yukon Zinc engage the EoR to evaluate the groundwater flow in this area and develop a plan to mitigate the on-going erosion of the slope to protect the liner from further deterioration.
- It is recommended Wolverine Mine engage the EoR to assess the instrumentation monitoring and replacement requirements.
- The Operations, Maintenance and Surveillance Manual, and the Emergency Preparedness Plan, were updated in July 2010.
- A dam with a Very High classification requires a formal Dam Safety Review (DSR) every five years as per the Canadian Dam Association guidelines. It is recommended Yukon Zinc schedule a DSR to comply with the Canadian Dam Association guidelines.

- The water balance has not been updated recently. It is recommended the water balance be updated and calibrated with measured pond volumes on a regular basis, with the results reported to the EoR.

On-Site Infrastructure

Visual observations were made of the on-site earth structures and ponds including the mill pad area and various industrial facilities. No major concerns were identified during the inspection of the on-site infrastructure.

The mine site contains numerous ditches and culverts that require regular inspections and maintenance, with repairs as needed. It is recommended the mine site staff regularly inspect site ditches and culverts and make repairs as needed.

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1 – INTRODUCTION

1.1 PROJECT DESCRIPTION

The Wolverine Mine, owned by Yukon Zinc Corporation is a zinc-silver-copper-lead-gold mine located in southeast Yukon approximately 280 km east of Whitehorse and 170 km northwest of Watson Lake. Road access to the mine is off the Robert Campbell highway. The location of the mine is shown on Figure 1.1.

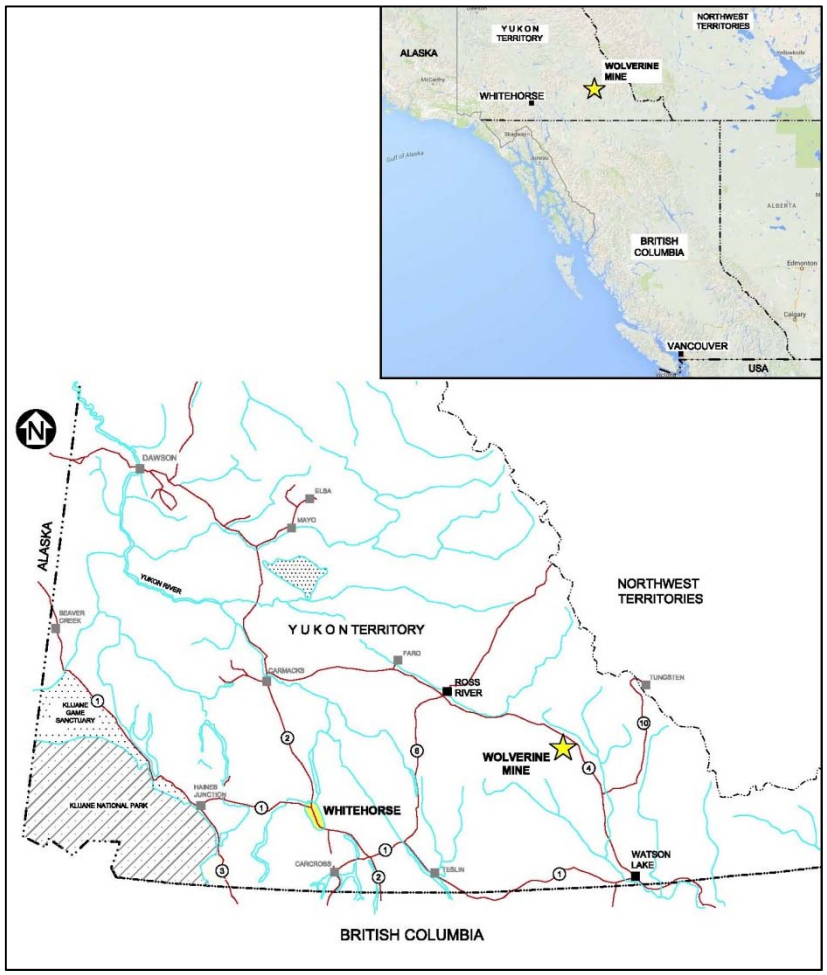


Figure 1.1 Site Location Plan

The mine commenced operations in 2009 and operated at a production rate of approximately 1,700 tonnes per day. The mine ceased operations in January 2015 and is currently operating under Care and Maintenance conditions.

Tailings were discharged as slurry into a fully lined Tailings Storage Facility (TSF) located south of the mill facility. The TSF embankment was designed and constructed as a homogeneous earthfill dam. The dam was constructed in two stages; a 19 m high starter dam constructed in 2009, with a seven meter downstream raise constructed in 2012. The ultimate height of the dam is currently 26 m

with a crest elevation of 1,313.25 m. The design of the TSF was completed by Klohn Crippen Berger Ltd. (KCB), the current Engineer of Record (EoR) for this facility.

The TSF has been accumulating water since the mine ceased operations and there is currently a full water cover on top of the tailings. The estimated volume of tailings stored in the TSF is approximately 566,000 m^3, with the estimated supernatant pond volume being approximately 452,000 m^3 (KCB 2015a). There is currently no discharge of water from the TSF.

The lined northern upstream slope of the TSF has progressively slumped over the past few years as reported in detail in the 2015 Dam Safety Inspection (DSI) completed by KCB. The slump area is approximately 75 m wide (KCB 2015b). A short term remediation plan was developed by KCB subsequent to the 2015 DSI. Observed liner damage appears to be limited to the upper section of the slope, well above the current pond elevation and above the elevation of the spillway invert.

1.2 SCOPE OF REPORT

Yukon Zinc Corporation requested Knight Piésold (KP) complete the 2016 DSI of the TSF and the inspection of the on-site earth structures. A DSI is typically completed by the EoR; however Yukon Zinc was interested in obtaining an independent inspection of the TSF for 2016. The site inspection was completed by Les Galbraith, P.Eng. of KP, who visited the site from August 29 to September 1, 2016. This report presents the results of the TSF DSI and the inspection of the on-site earth structures. Photographs from the 2016 inspection are included in Appendix C. Any recommendations presented in this report should be discussed with KCB, the EoR for the Wolverine Mine TSF.

2 – TAILINGS STORAGE FACILITY

2.1 GENERAL

The TSF embankment was designed and constructed as a homogeneous earthfill dam using the downstream construction method. The embankment is located at the south and west sides of the TSF. The embankment is at its highest at the south end where it is approximately 26 m high. The north and east sides of the TSF were cut into existing slopes. The impoundment is fully lined with linear low density polyethylene (LLDPE) geomembrane; the Stage 1 construction used 40-mil LLDPE and the Stage 2 embankment raise used 60-mil LLDPE (KCB 2009). LLDPE liners are susceptible to degradation from Ultra Violet exposure. It is recommended Yukon Zinc engage the EoR develop a plan to cover the LLDPE to ensure the integrity of the liner in the event of a prolonged Care and Maintenance period. The LLDPE liner is anchored into trenches located along the crest of the TSF.

The reclaim barge is located at the south end of the TSF. There are currently no tailings beaches as water covers the entire basin. Installed instrumentation includes inclinometers, vibrating wire piezometers, and survey monuments. The TSF has an emergency spillway located in natural ground at the northwest end of the TSF. A plan and section of the TSF are included in Appendix A.

A liner underdrain was installed during the Stage 1 construction to prevent uplift pressures on the liner in the TFS basin. The liner underdrain was extended during the Stage 2 construction program with the upstream end being located at the north end of the TSF adjacent to the assess road. The liner underdrain was considered to be redundant once tailings and/or water were discharged into the basin to offset potential uplift forces.

A seepage recovery pond is located at the south end of the TSF. The seepage recovery pond is adjacent to the mine access road which provides containment along the west side.

2.2 DAM CLASSIFICATION

The dam classification was previously evaluated using the Canadian Dam Association Guidelines (CDA 2007). The dam classification is determined by evaluating the potential incremental losses (loss of life, environmental and cultural values, and infrastructure and economics) as shown in Table 2.1.

Table 2.1 Dam Classification

Dam Class	Population at risk [2]	Incremental losses		
		Loss of life [3]	Environmental and cultural values	Infrastructure and economics
Low	None	0	Minimal short-term loss. No long-term loss.	Low economic losses; area contains limited infrastructure or services.
Significant	Temporary only	Unspecified	No significant loss or deterioration of fish or wildlife habitat. Loss of marginal habitat only. Restoration or compensation in kind highly possible.	Losses to recreational facilities, seasonal workplaces, and infrequently used transportation routes.
High	Permanent	10 or fewer	Significant loss or deterioration of important fish or wildlife habitat. Restoration or compensation in kind highly possible.	High economic losses affecting infrastructure, public transportation, and commercial facilities.
Very high	Permanent	100 or fewer	Significant loss or deterioration of critical fish or wildlife habitat. Restoration or compensation in kind possible but impractical.	Very high economic losses affecting important infrastructure or services (e.g., highway, industrial facility, storage facilities for dangerous substances)
Extreme	Permanent	More than 100	Major loss of critical fish or wildlife habitat. Restoration or compensation in kind impossible	Extreme losses affecting critical infrastructure or services (e.g., hospital, major industrial complex, major storage facilities for dangerous substances)

The dam classification is selected based on the “most severe” incremental loss for the different categories following a hypothetical dam breach. A dam breach analyses was completed for the Wolverine TSF to aid in the selection of the appropriate dam classification. The dam classification for the Wolverine TSF was selected as Very High (KCB 2015a). It is recommended the Dam Classification be reviewed in the next Dam Safety Review.

2.3 MINIMUM DESIGN EARTHQUAKE AND FLOOD

The Canadian Dam Association (CDA) issued a technical bulletin in 2014 titled Application of Dam Safety Guidelines to Mining Dams. The suggested Annual Exceedance Probabilities (AEPs) for the flood and earthquake design were presented for dams considered to be in the operations and Closure Phases. The AEPs for dams in the Operations Phase are similar to values previously referenced by the CDA for all dams. The Passive Closure Phase was added as it was recognized mining dams, especially tailings dams, have a significantly longer life than water dams and therefore higher AEPs would be more appropriate for the structures in the long term. The Wolverine TSF is currently considered to be in the Operational Phase. The suggested AEPs for the Wolverine TSF with a Very High dam classification are shown on Table 2.2.

Table 2.2 Suggested Design Flood and Earthquake Levels

Dam Class	Annual Exceedance Probability	
	Floods	Earthquakes
Low	1/100	1/100
Significant	Between 1/100 and 1/1,000	Between 1/100 and 1/1,000
High	1/3 between 1/1,000 and PMF	1/2,475
Very high	2/3 between 1/1,000 and PMF	1/2 between 1/2,475 and 1/10,000 or MCE
Extreme	PMF	1/10,000 or MCE

NOTES:

1. Acronyms: PMF, probable maximum flood; AEP, annual exceedance probability; MCE, maximum credible earthquake.

The Design Earthquake and Design Flood events for the TSF are as follows:

- Design Flood 2/3 between 1/1,000 and PMF
- Design Earthquake 1/2 between 1/2,475 and 1/10,000 or MCE

The TSF has been designed to safely route the 1:10,000 year return event through the current spillway. The TSF has the capacity to store the 1:200 year return event during operations without discharge of water (KCB 2015a). The design earthquake for the TSF is the 1:10,000 year return event. The Peak Ground Acceleration (PGA) for this event is 0.22g (KCB 2015a). The design flood and earthquake return period events both exceed the CDA recommended minimum AEP's for a dam with a Very High classification.

3 – 2016 INSPECTION

3.1 GENERAL

The site inspection was completed by Les Galbraith, P.Eng. of KP on August 30 and 31, 2016. The weather at the time of the inspection consisted of overcast skies. Support was provided during the inspection by Kevin Unrau, Site Supervisor.

3.2 2016 SITE ACTIVITIES

There have been no construction activities at the TSF in 2016. Site activities have been limited to instrumentation monitoring and routine maintenance.

3.3 TAILINGS STORAGE FACILITY

3.3.1 Tailings Embankment

No signs of deformation were identified on the TSF embankment. The embankment slopes were approximately planar and there was no evidence of cracking, bulging or slumping in the embankment fill materials (with the exception of the upstream slope at the north end of the TSF which is discussed below). Vegetation (grass) is starting to grow on the downstream slopes. Small erosion channels were observed on the downstream slope of the embankments although they are considered to be minor at this time.

The embankment crest appeared to be relatively level although ponding from precipitation was observed in low spots or ruts at a few locations. Grading of the embankment crest would alleviate ponding. There was no evidence of animal burrowing.

The north end of the TSF has slumped as reported in previous DSIs. The slump has resulted in a loss of the liner anchor trench and a lowering of the crest by approximately 1.5 m (KCB 2015a). A short-term remediation plan was presented by KCB in August 2015 (KCB 2015b) which included covering the crest in this area with LLDPE liner material to prevent surface water from entering the tension cracks. The covering liner was in place during the 2016 inspection.

3.3.2 Supernatant Pond

The TSF supernatant pond covers the entire TSF basin. The pond elevation is at approximately 1308 m. The pond is deepest at the south end where it is approximately 18 m deep according to the bathymetric survey completed in 2016.

3.3.3 Stage 2 Dam Emergency Spillway

The spillway channel is located on the northwest side of the TSF and was constructed in natural ground. The spillway channel is lined with riprap. No water has been discharged through the spillway. The spillway appeared to be in good condition.

3.3.4 Freeboard

The TSF design provides storage for the 200 year wet month plus snowmelt. The design also includes a freeboard allowance of 1.5 m on top of the peak water elevation resulting from routing the

1:10,000 year event through the spillway. It is recommended a maximum operating level be established for the supernatant pond to ensure there is sufficient freeboard to comply with the design storage objectives.

3.3.5 LLDPE Geomembrane Liner

The TSF is fully lined with a LLDPE liner. The TSF inspection included walking around the crest and visually inspecting the liner for obvious defects. No liner defects were observed during the inspection outside of the slumped area. Diagonal lines/bulges are evident along the east side of the TSF which may indicate differential stress on the liner resulting from creeping subgrade materials.

The liner at the north end of the TSF where the slump is occurring (discussions with mine staff indicate the slope has continued to progress based on a 2016 survey of this area) was inspected to the water line using a safety rope and harness. Although the bedding material beneath the liner has slumped in this area, the liner appears to be in good condition, with the exception of a few defects near the top of the slope which have been previously reported. The welds appeared to be intact. There was loose debris on the liner in this area which should be removed as discussed with Kevin Unrau. The slumped area is shown on Figure 3.1.



Figure 3.1 Slump at North End of TSF

The slump is likely attributed to groundwater flow eroding the subsurface materials. The 2015 DSI reported a number of seeps were observed along the impoundment slope during construction (this was a cut slope) indicating this is an area of groundwater flow/discharge. Ditch A, which routes runoff around the north side of the TSF, was lined with a LLDPE geomembrane to reduce groundwater infiltration; however, the upstream Stilling Basin which drains into Ditch A is unlined and is likely a source of groundwater inflow towards the TSF. It is recommended Yukon Zinc engage KCB to evaluate the groundwater flow in this area and develop a plan to mitigate the on-going erosion of the slope.

3.3.6 Liner Underdrains

The liner underdrain system was installed to manage seepage during the construction program, specifically to reduce the potential uplift forces on the liner system prior to there being water and/or tailings stored in the impoundment. The upstream inlet to the liner undrains is located adjacent to the crest at the north end of the TSF near the slump area. The outlet is located downstream of the seepage collection pond berm. There was no surface water flowing into the underdrain inlet. The outlet flows are discharged into a riprap lined channel/basin prior to discharge to the environment. A V-notch weir has been added to the discharge location since the 2015 DSI. It is recommended the discharge flows be measured at regular intervals and reported to the EoR to monitor fluctuations and/or increases in the groundwater flows.

3.4 SEEPAGE COLLECTION POND

The Seepage Collection Pond is located at the south end of the TSF. It was constructed to provide a contingency measure to collect potential seepage from the TSF. The pond also collects runoff from the TSF embankment slope and direct precipitation on the Seepage Collection Pond. The Seepage Collection Pond is contained on the west side by the site access road which appeared to be in good condition. Surface drainage from the pond is via two culverts installed on the west side of the pond. The pond level was below the culvert inverts at the time of the inspection.

3.5 DIVERSION DITCHES A AND B

Surface water is routed around the TSF via Diversion Ditches A and B. Diversion Ditch A routes water from the north end of the TSF to the west side of the TSF. Diversion Ditch B collects surface runoff from the east side of the TSF and discharges to the south of the TSF.

The north end of Diversion Ditch A is located at the southern end of the Stilling Basin located between the Waste Rock Pad and the TSF. Ditch A is mostly lined with HDPE, with the exception of the ditch near the culvert at the northwest end of the TSF. The ditch has minor sediment buildup in places but this is not impeding the ditch flow.

The northern inlet to Ditch A is at the south end of the stilling basin. Although the ditch is lined, the stilling basin is not. There is the potential for water from the stilling basin to flow under the lined ditch towards the TSF (in the direction of the slump). This may be a contributing factor to the deterioration of the fill material at the TSF slump area. Consideration should be given to reducing potential seepage flow in this area.

Ditch B is located on the eastern side of the TSF. Ditch B is an unlined ditch. The ditch was dry at the time of the inspection and no potential blockages were observed in the ditch.

3.6 TSF INSTRUMENTATION AND MONITORING

3.6.1 Piezometers

There are currently five working piezometers installed at the south embankment. Three of the piezometers were installed in the embankment fill material (approximately 2 m above the foundation elevation) and two piezometers were installed in the embankment foundation material (approximately 2 m below the foundation elevation). Piezometer PZ-10-1 is no longer functioning. It is recommended Yukon Zinc engage the EoR evaluate the need to replace lost instrumentation. The time plots for the piezometers are included in Appendix B.

The foundation piezometers (PZ10-03F and PZ10-04F) are showing regular seasonal trends with rising pore pressures being measured during the spring and summer followed by a lowering of the pore pressures in the winter months. The pore pressures measured in the foundation piezometers are below the trigger levels.

The piezometers installed in the embankment fill materials (PZ-10-02D, PZ-10-03D, and PZ-10-04D) are also showing seasonal trends although the seasonal fluctuations in PZ-10-2D and PZ-10-03D are less pronounced as compared to PZ-10-04D. The pore pressures measured in the embankment fill materials are below the trigger levels.

3.6.2 Inclinometers

There are currently two inclinometers installed at the south end of the TSF. The inclinometers were installed downstream of the Stage 1 dam during the Stage 1 construction program. The location of the inclinometers was within the Stage 2 dam footprint resulting in the need to extend the casing through the Stage 2 embankment fill material. Access to the inclinometers is approximately midway up the downstream embankment slope. Both inclinometers have been damaged, are no longer functioning and are likely not repairable. It is recommended Yukon Zinc discuss the requirement for maintaining functioning inclinometers with KCB and develop a replacement plan if required, or alternative method for measuring potential slope deformations.

3.6.3 Survey Monuments

There are five survey monuments installed along the embankment crest. The survey monuments were measured monthly until January 2015 but have not been measured since. It is recommended the measurement of the survey monuments be re-started and a regular schedule be developed especially in lieu of the damaged inclinometers.

3.7 DAM SAFETY REVIEW

A dam with a Very High classification requires a formal Dam Safety Review (DSR) every five years as per the Canadian Dam Association guidelines. It is not known if a DSR has been completed for the Wolverine TSF. It is recommended the Yukon Zinc schedule a DSR to comply with the Canadian Dam Association guidelines.

3.8 OTHER INFRASTRUCTURE

The tailings discharge and reclaim pipeline are located on the west side of the TSF. The pipelines are located on the crest adjacent to the liner. The pipelines are not being operated and do not present a stability concern for the TSF.

The reclaim barge is located at the south end of the TSF. The barge is accessed via a floating walkway sitting on pontoons. A conveyor belt has been placed under the pontoons which are located on the upstream slope to protect the liner. The liner was visually inspected from the crest and there did not appear to be any visible damage to the liner where it is in contact with the pontoons.

3.9 WASTE ROCK PAD

The waste rock pad is located approximately 100 m north of the TSF. A small pond is located at the south end of the waste rock pad. Water from the pond is routed to the TSF directly through a 4-inch pipe or through the passive treatment area.

The 2015 inspection report indicated this material was being removed with plans for complete removal. The mine is now operating under Care and Maintenance and the mine should update the plan and schedule for removal of this material.

3.10 OPERATIONS, MAINTANCE AND SURVEILLANVE MANUAL AND EMERGENCY PREPARDNESS PLAN

The Operations, Maintance and Surveillanve (OMS) Manual was last updated on July 2010. The OMS and Emergency Prepardness Plan (EPP) were not reviewed as part of the inspection. It is recommended Wolverine Mine review these documents and update as required.

4 – ON-SITE EARTH STRUCTURES

Visual observations were made of the on-site earth structures and ponds including the mill pad area and various industrial facilities (fuel tank area, water treatment sumps, cut and fill slopes, collection ditches, camp area, waste rock and ore storage areas, and the land treatment facility). The visual inspections were compared with the photographs included in the 2015 DSI report to evaluate whether there were obvious changes since the previous inspection. The results of the inspection are as follows:

- Mill building – The slope downstream of the mill building appeared to be in good condition. The erosion channel identified during the 2015 inspection has been repaired.
- The sinkhole at the manhole at the MSE – The sinkhole identified during the 2015 inspection has been repaired.
- Site Ponds – The site ponds consist of Sump 2, Sump 5, the Sewage Effluent Pond, and the Ore Stockpile Area Runoff Collection Sump. All of these ponds are lined with a geomembrane. The ponds liners appeared to be in good condition with no obvious defects observed.
- Ditch 1 – Ditch 1 is located on the eastern side of the Mill Building. Ditch 1 is unlined. A tension crack approximately 20 m long was observed on the crest of the downstream berm for Ditch 1. This was documented in the 2015 DSI report. The tension crack still exists, although there was no other sign of distress observed for this slope.
- Ditches 3 and 4 are located on the western side of the Mill Pad. Ditches 3 and 4 are lined with a geomembrane. There are areas of sediment deposition within these ditches which will require periodic maintenance to keep clean. The liner is not properly anchored in areas, as mentioned in the 2015 DSI report. It is recommended the mine develop a regular inspection schedule for the site ditches and maintain or repair as required.
- Camp Pad – Erosion gullies from the Camp Pad have previously been observed and repaired.
- MSE Wall – The MSE wall was inspected and no signs of deformation or bulging were observed. Small tension cracks were observed on the downstream side of the road above the MSE wall which will require monitoring.
- Waste Rock and Ore Storage Facility – The Waste Rock and Ore Storage Facility is located south of the Camp Pad. The crest of the Waste Rock and Ore Storage Facility was inspected and no signs of instability (tension cracking, slumping, etc.) were observed.
- The slopes behind the Vent Raise and Underground Mine Office, the Propane Tank Pad, and the Truck Shop were inspected from the base of the slope. No signs of slope instability were observed and the slopes appeared to be similar to the 2015 DSI photographic record.
- Site Culverts – There are numerous culverts at the mine site, most of which are in need of maintenance or repair. It is recommended the mine develop a regular inspection schedule for the culverts and maintain or repair as required.

The presence of large erosions gullies on some slopes can be an indication that upstream surface runoff is not being managed properly. A number of the previously reported erosion gullies have been repaired, however, ongoing monitoring of the repaired erosion gullies is recommended as this is likely the preferred pathway for storm water runoff which may result in ongoing erosion in some areas.

5 – TSF WATER BALANCE

A water balance spreadsheet was included in the 2015 DSI Report. The water balance has apparently not been updated. The mine site is currently storing the majority of the site runoff in the TSF. The total stored volume is a function of the site runoff and the water which is treated and discharged to the environment. It is recommended the water balance be updated and calibrated with measured pond volumes on a regular basis, with regular updates to the EoR. The water balance update should include a stochastic analysis to evaluate the potential impacts climate variability may have on the storage requirements (and predicted water quality) for the mine site.

6 – SUMMARY AND RECOMMENDATIONS

6.1 GENERAL

The Wolverine Mine, owned by Yukon Zinc Corporation is a zinc-silver-copper-lead-gold mine located in southeast Yukon approximately 280 km east of Whitehorse and 170 km northwest of Watson Lake. The mine commenced operations in 2009 and operated at a production rate of approximately 1,700 tonnes per day. The mine ceased operations in January 2015 and is currently operating under Care and Maintenance conditions. Tailings were discharged as slurry into a fully lined Tailings Storage Facility (TSF) located south of the mill facility. The design of the TSF was completed by Klohn Crippen Berger Ltd. (KCB), the current Engineer of Record (EoR) for this facility.

Yukon Zinc Corporation requested Knight Piésold (KP) complete the 2016 DSI of the TSF and the inspection of the on-site earth structures as a third party reviewer. The site inspection was completed by Les Galbraith, P.Eng. of KP. The results of the 2016 site inspection are as follows:

6.2 TAILINGS STORAGE FACILITY

- The TSF has a Very High dam classification.
- The design flood and earthquake return period events for the TSF both exceed the CDA recommended minimum values for a dam with a Very High classification.
- There were no construction activities in 2016.
- No signs of deformation were identified on the TSF embankment. The embankment slopes were approximately planar and there was no evidence of cracking, bulging or slumping in the embankment fill materials (with the exception of the slump area at the north end of the TSF.
- The section of the upstream slope at the north end of the TSF has slumped as reported in previous DSIs. The slump has resulted in a loss of the liner anchor trench and a lowering of the crest by approximately 1.5 m in this area. The progression of the slump is being monitored by site staff. Defects to the liner in this area are above the water level and the spillway invert. All loose debris on the liner surface should be removed.
- The crest at the slumped area was covered with HDPE liner in 2015 to reduce runoff inflows to the tension cracks.
- The slump is likely attributed to groundwater flow which has eroded the subsurface materials. It is recommended Yukon Zinc engage the EoR to evaluate the groundwater flow in this area and develop a plan to monitor and mitigate the on-going erosion of the slope.
- Groundwater flows in this area are likely reporting to the liner underdrain. It is recommended these flows be measured and reported to the EoR on a regular basis.
- A possible contributor to groundwater flows is the Stilling Basin, which is an unlined basin upstream of the slumped area. It is recommended this be evaluated by KCB.
- There are five working piezometers at the south TSF dam. There are no concerns with the piezometric readings. Piezometer PZ-10-1 is no longer functioning. It is recommended Yukon Zinc engage the EoR evaluate the need to replace lost instrumentation.
- There are two inclinometers installed at the south TSF dam. None are currently working. It is recommended Yukon Zinc engage KCB to assess the ongoing inclinometer monitoring requirements.

- There are five survey monuments located at the TSF south dam. These have not been read since January 2015. It is recommended these be monitored and reported to the EoR on a regular basis, especially in-lieu of the inclinometers not working.
- The OMS and EPP have not been updated since July 2010. It is recommended Wolverine Mine review these documents and update as required.
- The water balance has not been updated recently. It is recommended the water balance be updated and calibrated with measured pond volumes on a regular basis, with regular updates to the EoR. The water balance update should include a stochastic analysis to evaluate the potential impacts climate variability may have on the storage requirements (and predicted water quality) for the mine site.
- A dam with a Very High classification requires a formal Dam Safety Review (DSR) every five years as per the Canadian Dam Association guidelines. It is recommended Yukon Zinc schedule a DSR to be completed as per the schedule outlined in the Canadian Dam Association guidelines.

6.3 ON-SITE INFRASTRUCTURE

Visual observations were made of the on-site earth structures and ponds including the mill pad area and various industrial facilities. No major concerns were identified during the inspection of the on-site infrastructure.

The mine site contains numerous ditches and culverts that require regular inspections and maintenance, with repairs as needed. It is recommended the mine site staff regularly inspect site ditches and culverts and make repairs as needed.

7 – REFERENCES

Canadian Dam Safety Guidelines, 2007

Klohn Crippen Berger, March 2009. *Wolverine Project – Tailings and Infrastructure Design and Construction Plan, Version 2009-02*.

Klohn Crippen Berger, August 11, 2015a. *Wolverine Mine – 2015 Annual Inspection of TSF and On-Site Earth Structures.*

Klohn Crippen Berger, August 26, 2015b. *Wolverine Mine – 2015 Annual Inspection – Short Term remediation for Slump along TSF North Wall*.

8 – CERTIFICATION

This report was prepared and reviewed by the undersigned.



Prepared: Dec 2/16

Les Galbraith, P.Eng.
Specialist Engineer | Associate

Reviewed:

Bruno Borntraeger, P.Eng.
Specialist Geotechnical Engineer | Associate

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Approval that this document adheres to Knight Piésold Quality Systems: BB

APPENDIX A

KCB SITE DRAWINGS

(Pages A-1 to A-3)

TAILINGS PIPELINE
NEW STILLING BASIN
UNDERDRAIN INTAKE BASIN
WASTE ROCK STORAGE AREA (WRS)
DITCH A (LINED)
DITCH B
SLUMP LOCATION (SEE NOTE 3)
AIR STRIP
TENSION CRACK AND SIGN OF DISTRESS IN NORTH WALL
SOUTHEAST BORROW
NORTHEAST WASTE PILE
TAILINGS BEACH
RECLAIM BARGE
℄ SEEPAGE COLLECTION V-DITCH
DIVERSION DITCH B CULVERT
CULVERT
PUMP HOUSE
SM14-05
SM14-02
SM14-03
PZ10-02
PZ10-03
GO CREEK
STAGE 2 SPILLWAY
STILLING BASIN
WEST DAM
RECLAIM PIPELINE
SOUTH DAM
IN10-01
PZ10-01
PZ10-04
SM14-03
IN10-02
SM14-04
SOUTHEAST WASTE PILE
DIVERSION DITCH A CULVERT
DAM CREST EL ~1313.5m, 6m WIDTH
MINE ACCESS ROAD TO ROBERT CAMPBELL HWY
℄ SEEPAGE COLLECTION V-DITCH
STILLING BASIN
SEEPAGE COLLECTION BASIN
℄ SEEPAGE DAM SPILLWAY
SEEPAGE DAM
UNDERDRAIN OUTLETS
6809500N
6809000 N
6808500N
6808000N
443000 E
441500E
442000E
442500E
0 200 m

LEGEND

- PIEZOMETER
- INCLINOMETER
- SURVEY MONUMENT
- DITCH (LINED)
- DITCH (UNLINED)

NOTES:

1. NOT ALL CULVERTS HAVE BEEN SHOWN.
2. ALL ELEVATIONS IN METRES.
3. LOCATION OF THE SLUMP WAS TAKEN BY HANDHELD GPS UNIT.
4. TSF AS-BUILT PROVIDED BY YZC SEPT. 2012.

AS A MUTUAL PROTECTION TO OUR CLIENT, THE PUBLIC AND OURSELVES, ALL REPORTS AND DRAWINGS ARE SUBMITTED FOR THE CONFIDENTIAL INFORMATION OF OUR CLIENT FOR A SPECIFIC PROJECT AND AUTHORIZATION FOR USE AND/OR PUBLICATION OF DATA, STATEMENTS, CONCLUSIONS OR ABSTRACTS FROM OR REGARDING OUR REPORTS AND DRAWINGS IS RESERVED PENDING OUR WRITTEN APPROVAL.

CLIENT: Yukon Zinc CORPORATION

Klohn Crippen Berger

PROJECT: WOLVERINE MINE 2015 ANNUAL INSPECTION

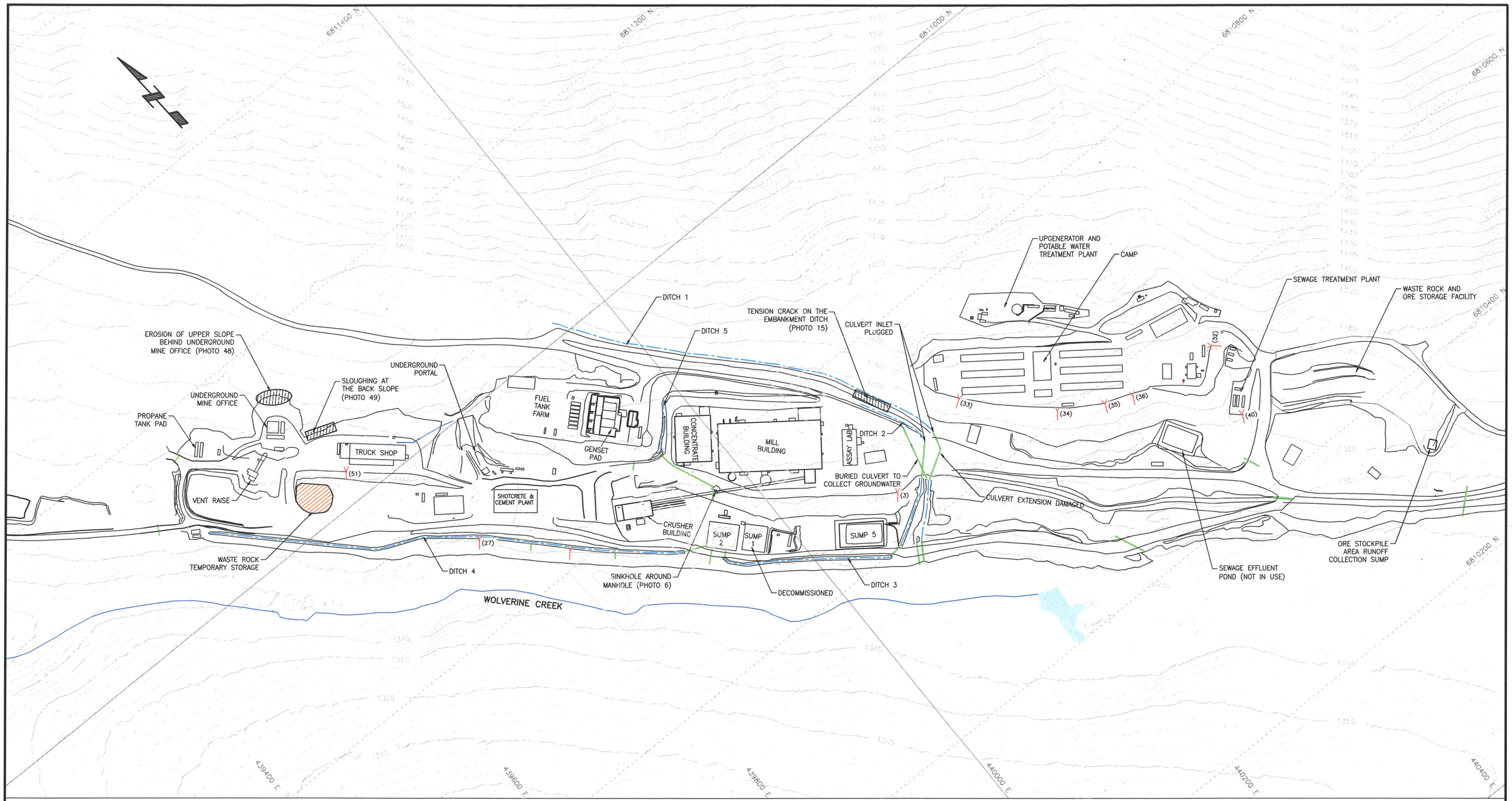
TITLE: SITE PLAN
TAILINGS STORAGE FACILITY (TSF)

SCALE	PROJECT NO.	FIG. NO.
AS SHOWN	M09234A11	1

CANCEL PRINTS BEARING PREVIOUS REVISION

KCB-DWG-TL

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SCALE 0 100 m

LEGEND

- CULVERT
- DITCH ℄
- Y (51) EROSION GULLEY (PHOTO NUMBER)

NOTES:

1. THE SITE PLAN WAS PROVIDED BY YZC.
2. PHOTOS ARE PROVIDED IN APPENDIX II.
3. EROSION LOCATION SHOWN ARE APPROXMATE TAKEN BY HANDHELD GPS UNIT.

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CLIENT: Yukon Zinc Corporation

Klohn Crippen Berger

PROJECT: WOLVERINE MINE 2015 ANNUAL INSPECTION

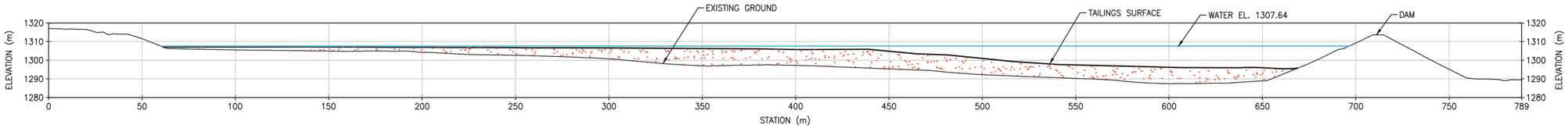
TITLE: SITE PLAN ON-SITE EARTH STRUCTURES

SCALE	PROJECT NO.	FIG. NO.
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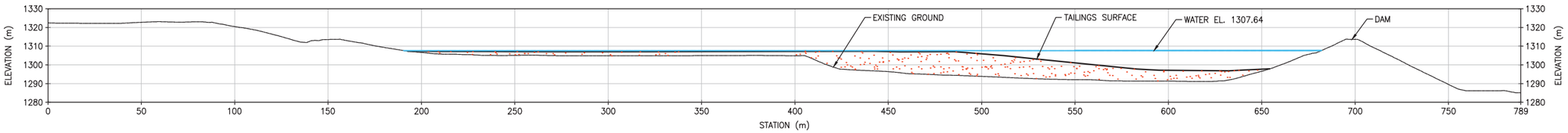
CANCEL PRINTS BEARING PREVIOUS REVISION

KCB-DWG-D-L

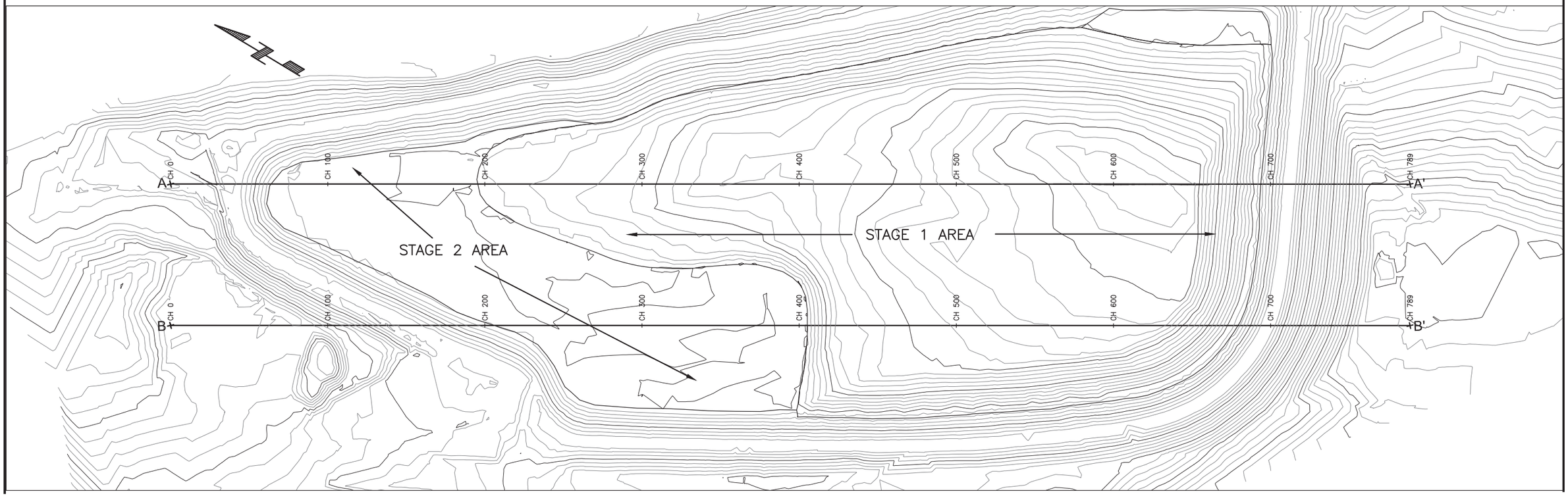
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SECTION A – A'



SECTION B – B'



LEGEND

SATURATED TAILINGS

NOTE

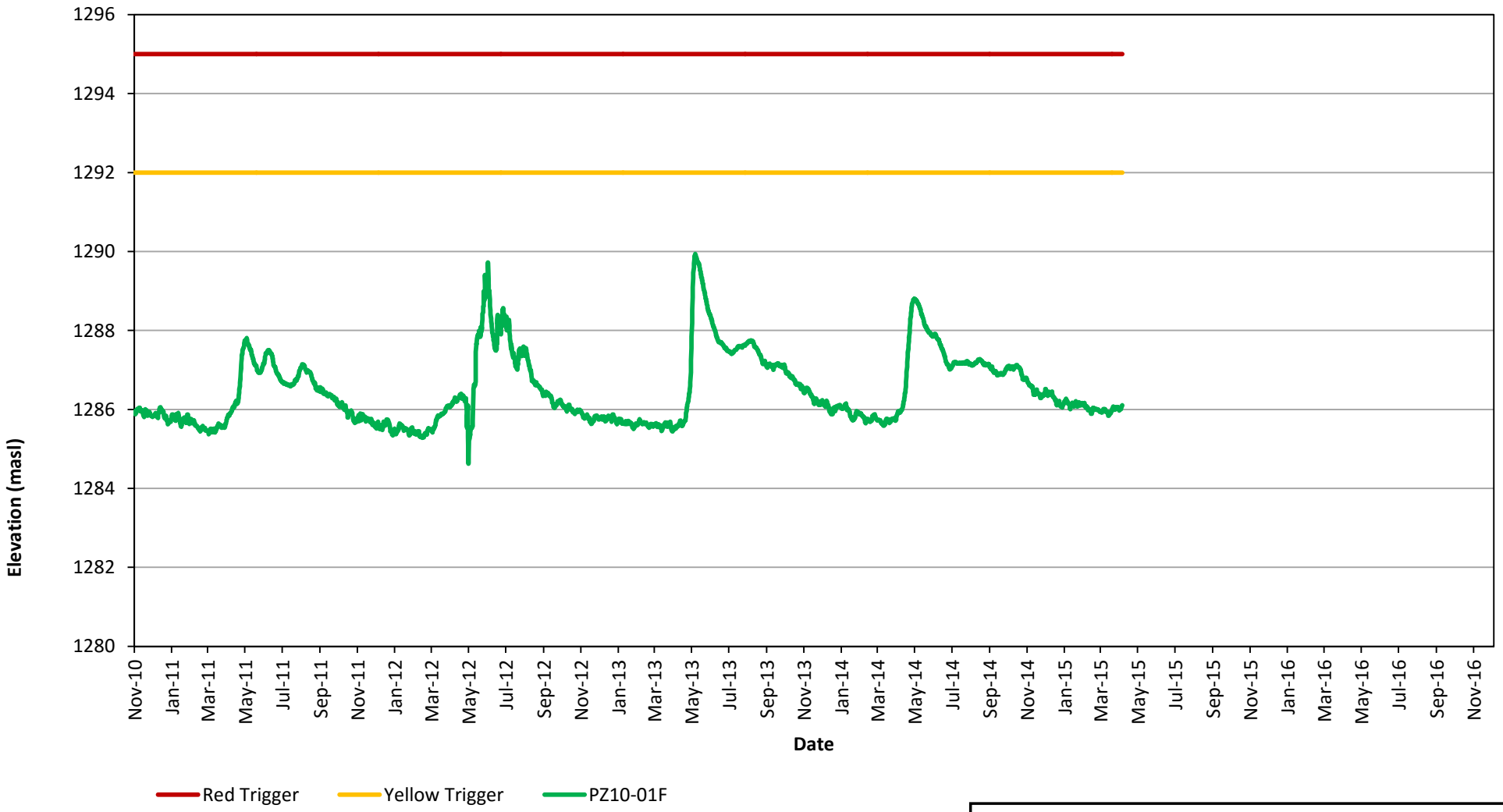
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APPENDIX B

INSTRUMENTATION

(Pages B-1 to B-4)



Notes: Triggel levels defined by Klohn Crippen Berger

YUKON ZINC CORPORATION

WOLVERINE MINE

TAILINGS STORAGE FACILITY
2016 INSPECTION
VIBRATING WIRE PIEZOMETER PZ-10-01

Knight Piésold CONSULTING

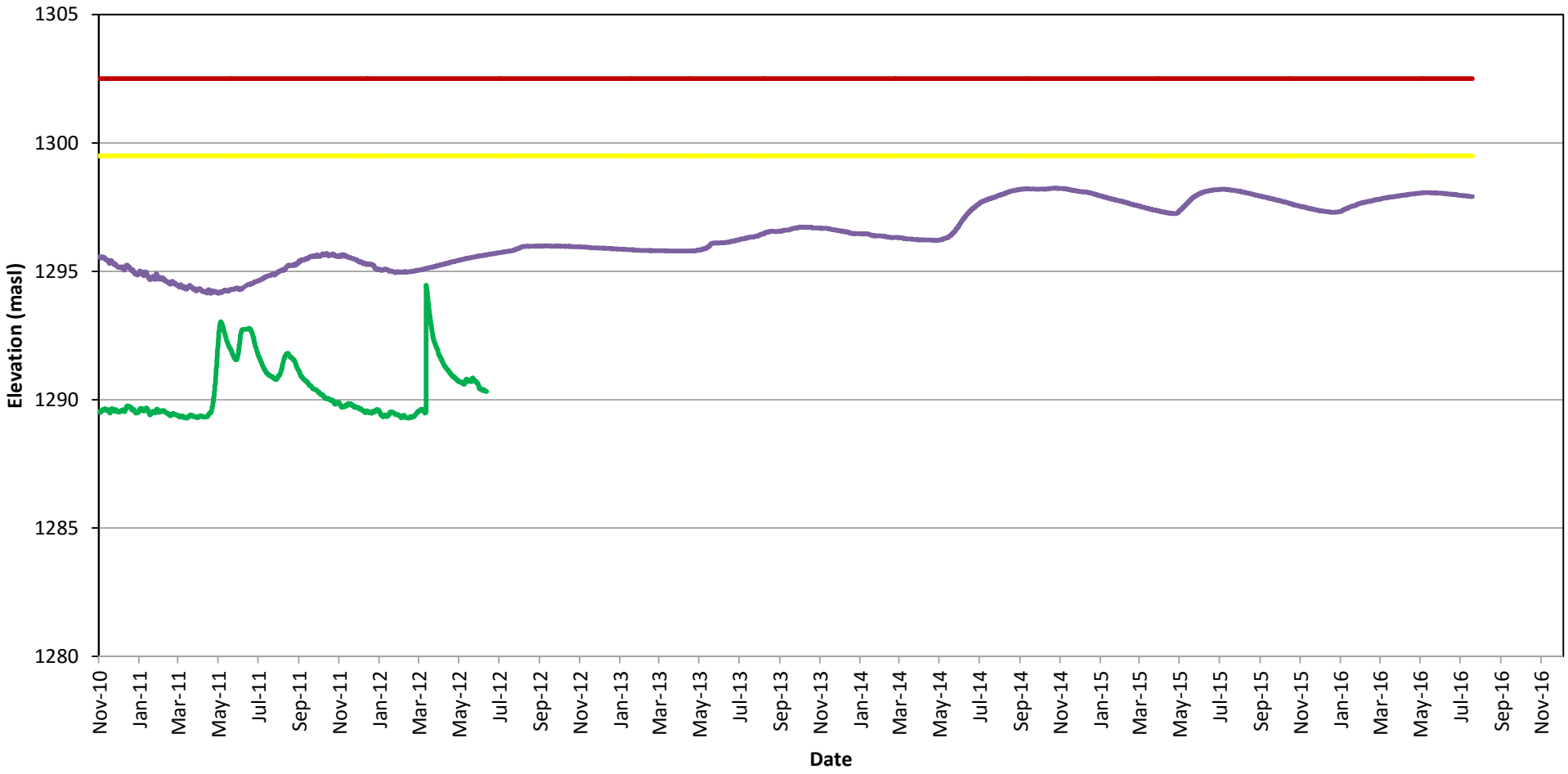
P/A NO. VA101-677-01

REF NO. 1

FIGURE B1

REV 0

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
0	10NOV'16	ISSUED WITH REPORT	LJG	BB	BB



Notes: Triggel levels defined by Klohn Crippen Berger

0	10NOV'16	ISSUED WITH REPORT	LJG	BB	BB
REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D

YUKON ZINC CORPORATION

WOLVERINE MINE

TAILINGS STORAGE FACILITY
2016 INSPECTION
VIBRATING WIRE PIEZOMETER PZ-10-02

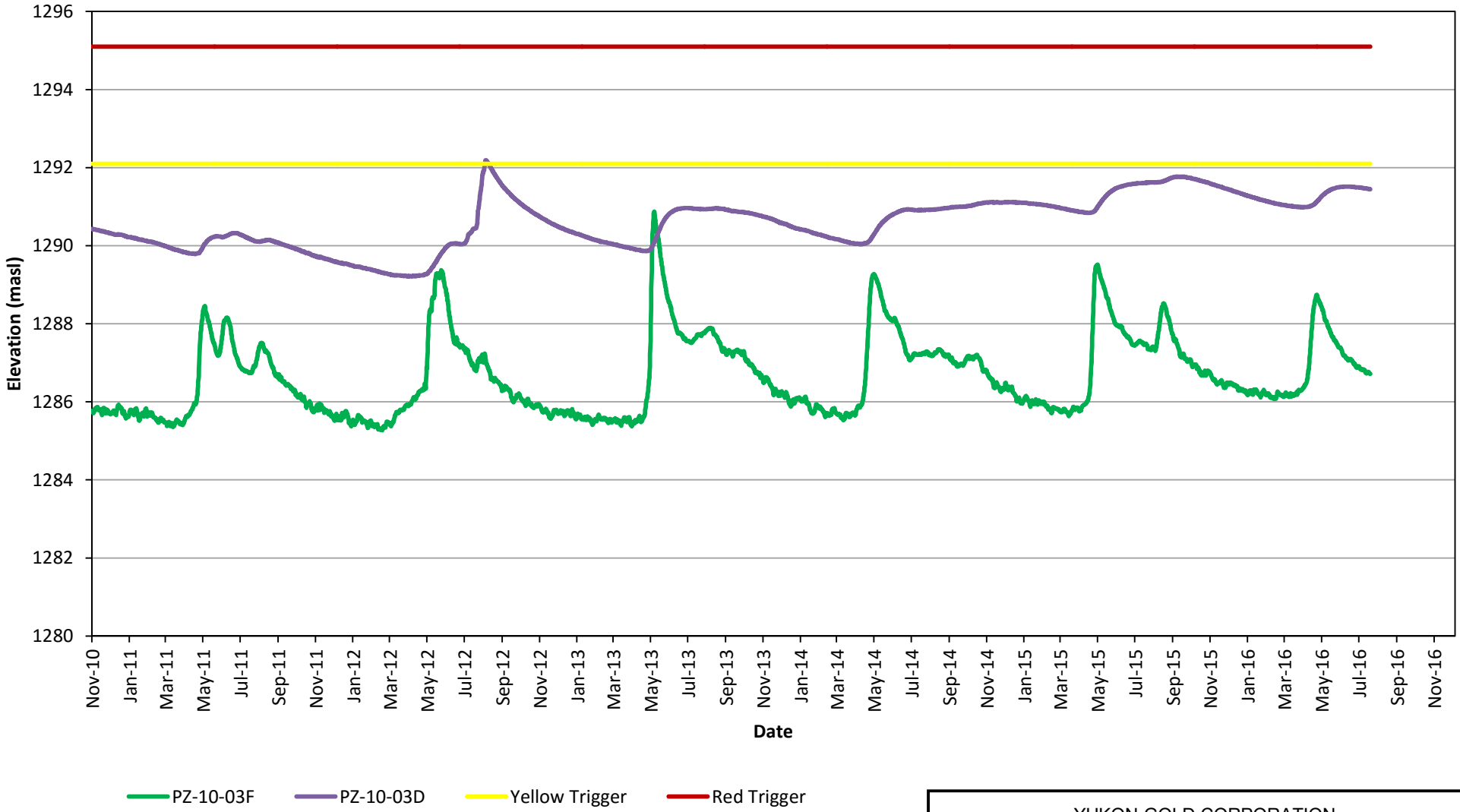
Knight Piésold CONSULTING

P/A NO. VA101-677/1

REF NO. 1

FIGURE B2

REV 0



Notes: Triggel levels defined by Klohn Crippen Berger

0	10NOV'16	ISSUED WITH REPORT	LJG	BB	BB
REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D

YUKON GOLD CORPORATION

WOLVERINE MINE

TAILINGS STORAGE FACILITY
2016 ANNUAL INSPECTION
VIBRATING WIRE PIEZOMETER PZ-10-03

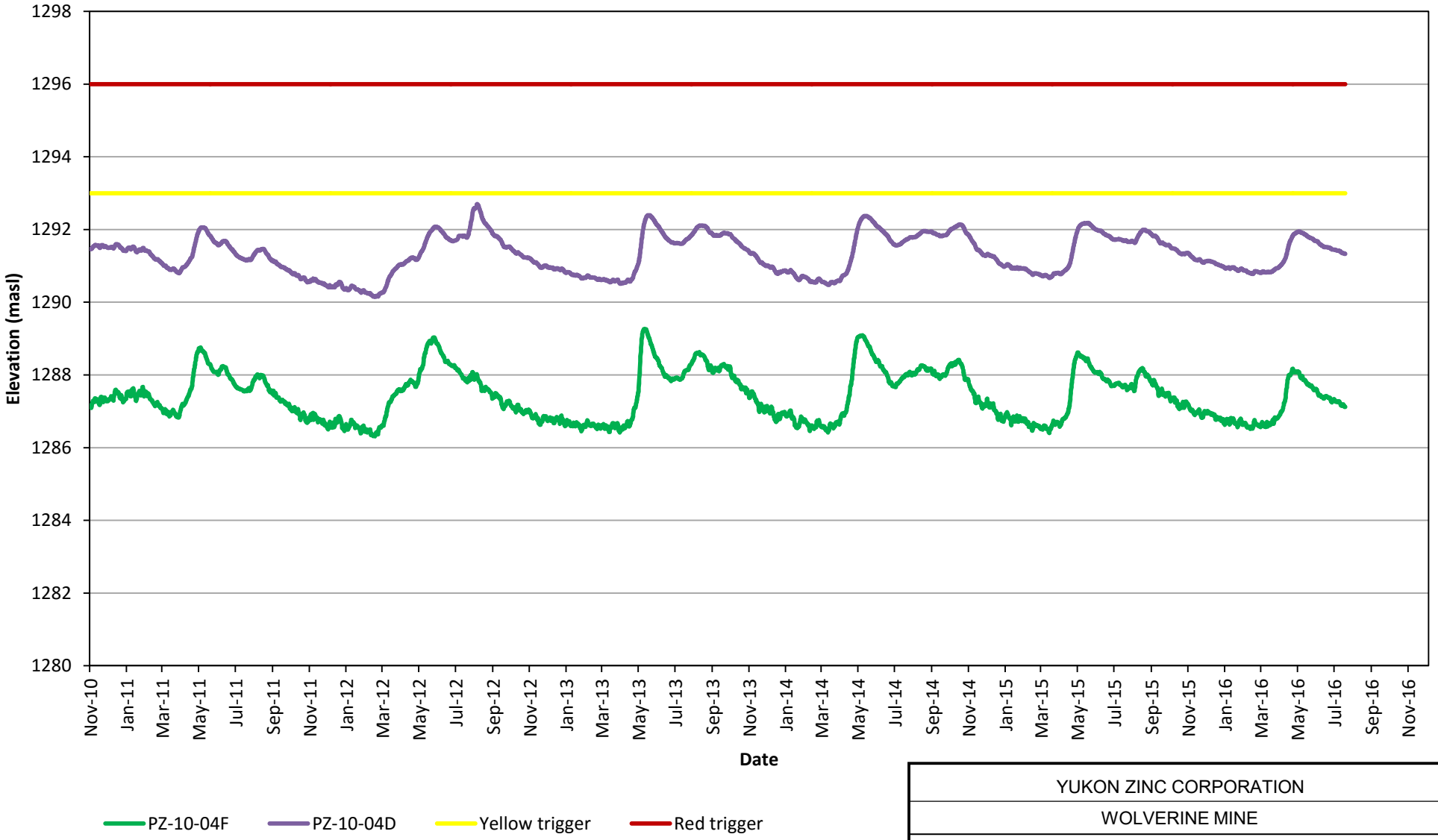
Knight Piésold CONSULTING

P/A NO. VA101-677/1

REF NO. 1

FIGURE B3

REV 0



Notes: Triggel levels defined by Klohn Crippen Berger

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
0	10NOV'16	ISSUED WITH REPORT	LJG	BB	BB

YUKON ZINC CORPORATION

WOLVERINE MINE

TAILINGS STORAGE FACILITY
2016 INSPECTION
VIBRATING WIRE PIEZOMETER PZ-10-04

Knight Piésold CONSULTING

P/A NO. VA101-677/1

REF NO. 1

FIGURE B4

REV 0

APPENDIX C

PHOTOGRAPHS FROM 2016 SITE INSPECTION

(Pages C-1 to C-29)



PHOTO 1 – TSF South Embankment – Looking west. Piezometer readout box in foreground.



PHOTO 2 – TSF South Embankment – Looking east.



PHOTO 3 – TSF South Embankment – Reclaim barge.



PHOTO 4 – TSF South Embankment – Downstream slope.

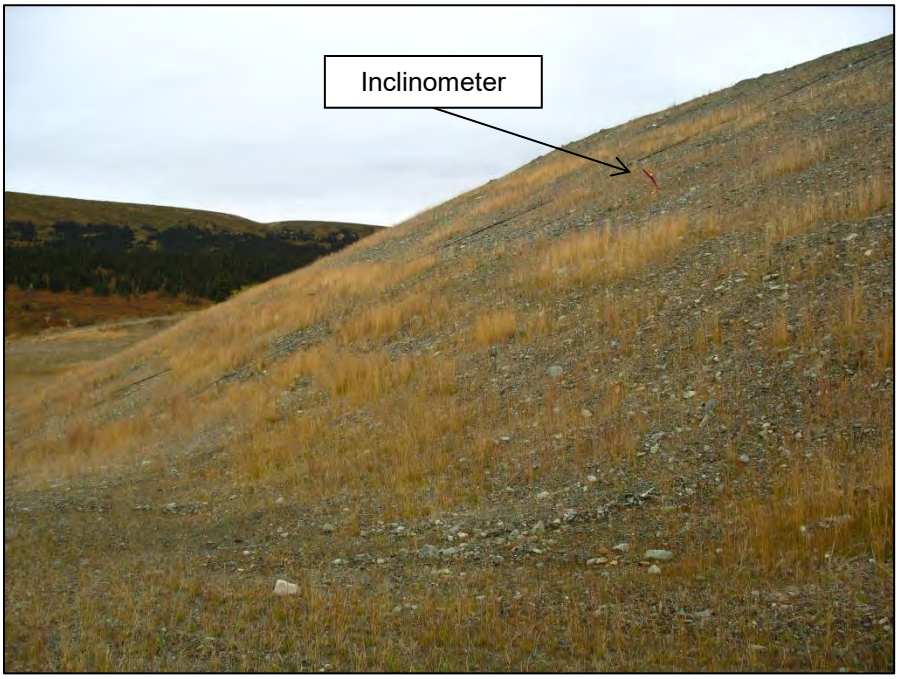


PHOTO 5 – TSF South Embankment – Downstream slope.



PHOTO 6 – TSF South Embankment – Damaged inclinometer – no longer functioning.

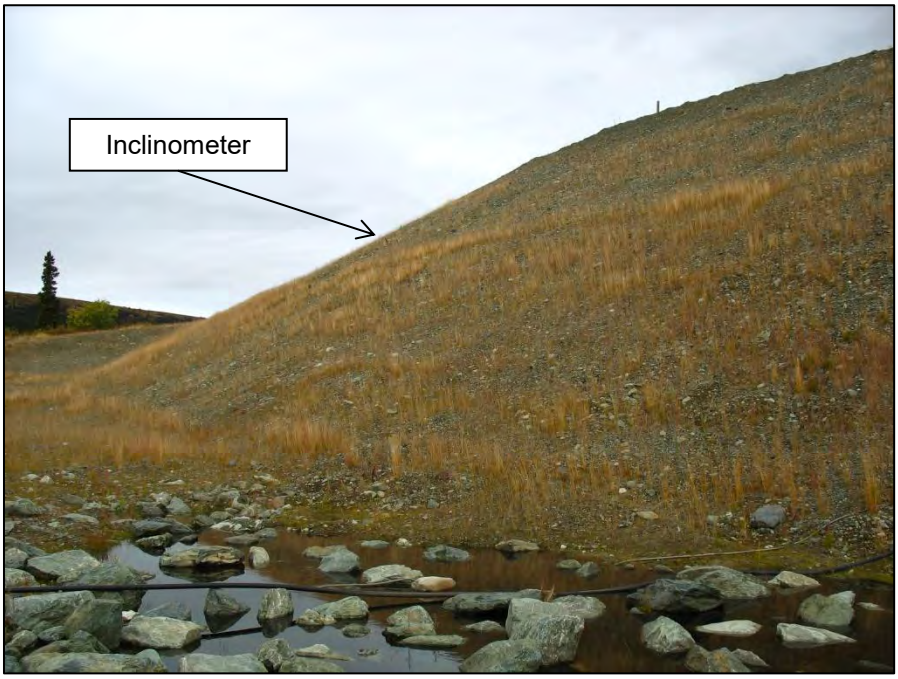


PHOTO 7 – TSF South Embankment – Downstream slope



PHOTO 8 – TSF South Embankment – Pipe stuck in inclinometer – no longer functioning.



PHOTO 9 – TSF South Embankment – Upstream slope.



PHOTO 10 – TSF West Embankment – Ponding on crest



PHOTO 11 – West Side of TSF – Upstream slope.



PHOTO 12 – TSF West Embankment crest looking south. Ponded water at toe.



PHOTO 13 – TSF upstream slope near spillway.



PHOTO 14 – North TSF Upstream Slope – Slump area.



PHOTO 15 – North TSF Upstream Slope – Slump area.



PHOTO 16 – TSF slump area – Liner damage



PHOTO 17 – TSF slump area cover material.

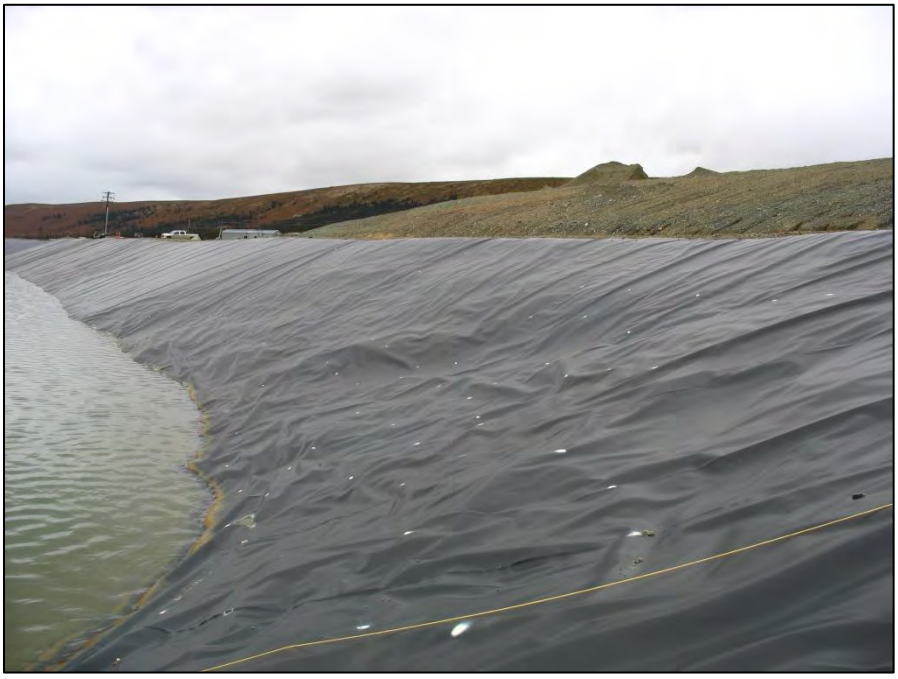


PHOTO 18 – TSF slump area – Deformation of underlying fill material.



PHOTO 19 – West Side of TSF – Looking east



PHOTO 20 – East side of TSF - Looking south.



PHOTO 21 – TSF spillway channel looking downstream.



PHOTO 22 – TSF spillway looking west.



PHOTO 23 – TSF Seepage Collection Pond.



PHOTO 24 – TSF Underdrain Discharge Area at west side of the Seepage Collection Pond.



PHOTO 25 – TSF Seepage Collection Pond looking west towards culverts.



PHOTO 26 – Ditch A at north side of TSF – Looking west.



PHOTO 27 – Ditch A at north side of TSF – Looking north towards Stilling Basin.



PHOTO 28 – Ditch B on east side of TSF - Looking south.



PHOTO 29 – Ditch B on east side of TSF - Looking north.



PHOTO 30 – Stilling Basin and upstream end of Ditch A.



PHOTO 31 – Stilling Basin and upstream end of Ditch A. Stilling Basin unlined.



PHOTO 32 – Passive treatment area north of TSF.



PHOTO 33 – Small collection area downstream of the Waste Rock Storage Area.



PHOTO 34 – Passive treatment area north of TSF.



PHOTO 35 – SE borrow



PHOTO 36 – SE waste pile



PHOTO 37 – NW waste pile



PHOTO 38 – NW waste pile erosion gullies



PHOTO 39 – MSE Wall



PHOTO 40 – MSE Wall



PHOTO 41 – Manhole upstream of MSE Wall



PHOTO 42 – Downstream Slope of the Genset Pad



PHOTO 43 – Sump 1



PHOTO 44 – Sump 2



PHOTO 45 – Sump 5



PHOTO 46 – Ditch 1 – Tension crack in berm fill material.



PHOTO 47 – Ditch 1 – Minor debris in ditch bottom.



PHOTO 48 – Ditch 1 culvert



PHOTO 49 – Drainage from Mill Pad.



PHOTO 50 – Ditch 4



PHOTO 51 – Ditch 5



PHOTO 52 – Camp Pad with repaired erosion gully



PHOTO 53 – Sewage Effluent Pond



PHOTO 54 – Waste Rock and Ore Storage Facility



PHOTO 55 – Waste Rock and Ore Storage Facility runoff collection sump



PHOTO 56 – Slope behind Vent Raise and Underground Office



PHOTO 57 – Slope upstream of MSE Wall – Small tension cracks observed on downstream site of access road.



PHOTO 58 – East slope of lined TSF. Note diagonal lines on the liner which may be an indicator of liner stress.

Appendix B: Summary of Water Quality Results

Sample Location	L1	L1	L1	L1	T1	T1	T1	T1	T1	T1	T1	T1	T1
Sampling Date	2016-02-01	2016-06-08	2016-08-17	2016-09-21	2016-02-03	2016-03-17	2016-04-25	2016-05-17	2016-06-07	2016-07-18	2016-08-17	2016-09-20	2016-10-12
Lab Report ID	B608925	B646178	B673226	B683332	B608925	B621455	B632583	B639205	B646178	B660054	B673226	B683332	B690932
Field Parameters													
Temperature (°C)	-0.72	12.16	12.66	2.1	*	1.53	0.36	10.08	12.21	18.05	14.71	8.03	*
pH	7.21	8.15	7.83	7.04	*	6.68	7.61	6.33	6.8	3.25	7.14	7.57	*
Specific Conductivity (µS/cm^3)	163	118	104	195	*	3699	3571	2910	2689	4036	2373	298	*
Conductivity (µS/cm)	83	89	133	110	*	2040	1891	2081	2032	2594	2307	190	*
Physical Parameters													
Temperature (°C)	1	4	9.5	1.3	1	1.7	4.7	5	4	3.7	9.5	1.3	2
Conductivity (µS/cm)	151	125	139	146	3650	3620	1370	2990	2730	2960	3040	147	3080
Hardness (mg/L)	71.8	56.4	64.6	65.2	1790	1650	551	1320	1530	1540	1470	68.9	1480
Total Suspended Solids (mg/L)	<4.0	<4.0	<4.0	<4.0	4.8	<4.0	<4.0	<4.0	5	4.5	<4.0	<4.0	4.3
Total Dissolved Solids (mg/L)	76	76	84	92	3430	3420	990	2510	2470	2750	2890	88	2820
pH	7.9	7.8	8	7.8	6.65	6.52	6.45	6.68	7.29	7.56	6.84	7.93	6.81
Turbidity (NTU)	0.76	0.99	0.48	1.67	7.48		3.97		6.08	3.73	2.65	1	4.3
DOC (mg/L)	2.91	3.31	3.2		28.9		11.4		18.3			3.53	22.7
Major Anions (mg/L)													
Alkalinity-Total	63.5	48.2	57	46.2	12.6	5.72	2.98	6.1	15.8	27.8	8.31	60.8	7.24
Acidity-Total	<0.50	<0.50	<0.50	<0.50	4.72		1.57		1.95	4.14	3.15	<0.50	7.52
Bromide	<0.010	<0.010	<0.010	<0.010	0.12		<0.10		<0.10	<0.10	0.123	<0.010	<0.10
Chloride	0.7	0.62	<1.0	<1.0	540	480	160	420	340	260	250	<1.0	240
Fluoride	0.07	0.08	0.069	0.06	0.22	0.21	0.067	0.19	0.18	0.19	0.18	0.077	0.19
Sulphate	12.1	11.7	14	27	1650	1780	581	1450	1340	1450	1700	16	1700
Nutrient Parameters (mg/L)													
Ammonial Nitrogen	0.055	0.016	0.062	0.024	1.2	0.73	0.17	0.83	0.62	0.46	0.39	0.029	0.59
Nitrate Nitrogen	0.24	<0.20	<0.20	0.24	0.28	<0.20	<0.20	<0.20	<0.20	<0.20	0.61	<0.20	0.38
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate	0.015	0.0056	0.0096	0.0016	0.029		0.01		0.013	0.0011	0.004	0.0084	0.005
Total Metals (mg/L)													
Aluminum (Al)	0.00453	0.0131	0.00996	0.0327	0.105	0.059	0.0626	0.0666	0.0571	0.0172	0.0175	0.0123	0.0238
Antimony (Sb)	0.000046	0.00003	0.000049	0.000021	0.0631	0.056	0.0167	0.0465	0.045	0.0451	0.0471	0.000061	0.0475
Arsenic (As)	0.00143	0.00147	0.00195	0.000148	0.0133	0.0107	0.00368	0.00939	0.00743	0.00607	0.00669	0.00163	0.00728
Cadmium (Cd)	0.000022	0.000012	0.000011	0.000031	0.0122	0.0111	0.00764	0.0125	0.0127	0.0115	0.0111	0.000023	0.0113
Calcium (Ca)	21.5	17.1	18.6	18	711	658	219	523	610	612	583	20.8	587
Chromium (Cr)	<0.00010	<0.00010	<0.00010	0.00016	<0.0050	<0.0020	0.00225	<0.00050	<0.00050	<0.00050	<0.00010	0.00014	<0.00050
Cobalt (Co)	0.000027	0.000017	0.000022	0.000046	0.00216	0.00191	0.000827	0.00178	0.00191	0.00186	0.00196	0.000016	0.00179
Copper (Cu)	0.000274	0.0005	0.000531	0.000588	0.798	0.71	0.18	0.52	0.426	0.364	0.414	0.000785	0.387
Iron (Fe)	0.219	0.052	0.102	0.119	0.22	0.286	0.306	0.462	0.595	0.279	0.232	0.0881	0.236
Lead (Pb)	0.000006	0.000014	0.000135	0.000177	0.225	0.206	0.0547	0.181	0.173	0.102	0.0829	0.000747	0.081
Magnesium (Mg)	4.4	3.34	4.39	4.9	2.5	2.2	0.98	2.26	2.27	2.62	2.87	4.14	2.59
Manganese (Mn)	0.0855	0.0138	0.0199	0.0146	0.306	0.289	0.109	0.293	0.331	0.386	0.415	0.0251	0.417
Mercury (Hg)		<0.00001					<0.00001		<0.00001				
Molybdenum (Mo)	0.0011	0.000966	0.00117	0.000313	0.145	0.141	0.0203	0.0927	0.07	0.0349	0.0935	0.0011	0.0891
Nickel (Ni)	0.000444	0.000389	0.000425	0.000844	0.0079	0.00734	0.00341	0.00725	0.00687	0.00748	0.00804	0.000466	0.00769
Phosphorus (P)	0.0227	0.0219	0.0171	0.0085		0.145	0.098		0.089	0.092	0.0693	0.0209	0.078

Sample Location	L1	L1	L1	L1	T1	T1	T1	T1	T1	T1	T1	T1	T1
Sampling Date	2016-02-01	2016-06-08	2016-08-17	2016-09-21	2016-02-03	2016-03-17	2016-04-25	2016-05-17	2016-06-07	2016-07-18	2016-08-17	2016-09-20	2016-10-12
Lab Report ID	B608925	B646178	B673226	B683332	B608925	B621455	B632583	B639205	B646178	B660054	B673226	B683332	B690932
Potassium (K)	0.992	0.7	0.716	0.754	68.4	57.8	18.1	44.6	42.8	43.3	47.3	0.692	45.2
Selenium (Se)	0.000411	0.000364	0.000394	0.00025	2.39	2.4	0.832	1.75	1.58	2.09	1.83	0.000427	1.74
Silicon (Si)	4.21	2.44	1.41	3.2	1.9	1.83	0.67	1.71	1.63	1.92	1.76	2.49	1.82
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.00961	0.00685	0.000865	0.00746	0.00515	0.00417	0.00527	<0.0000050	0.00624
Sodium (Na)	1.17	0.884	1.1	1.18	234	208	63.7	163	152	174	178	1.05	166
Strontium (Sr)	0.0551	0.0482	0.0495	0.0487	2.89	2.78	0.824	2.25	2.13	2.19	2.21	0.0533	2.28
Thallium (Tl)	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.00117	0.000941	0.000387	0.00107	0.00097	0.00136	0.00131	<0.0000020	0.00104
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.0050	<0.0020	<0.00050	<0.00050	<0.00050	<0.0010	<0.00020	<0.00020	<0.0010
Zinc (Zn)	0.00292	0.00144	0.00195	0.00485	1.12	1.02	0.632	1.22	1.32	1.32	1.35	0.00452	1.29
Dissolved Metals (mg/L)													
Aluminum (Al)	0.00582	0.00818	0.00535	0.011	0.0476	0.048	0.0308	0.0493	0.0147	0.0116	0.0109	0.00665	0.0165
Antimony (Sb)	0.000044	<0.000020	0.000049	0.000024	0.0489	0.0568	0.0127	0.0432	0.0396	0.0452	0.0478	0.000071	0.0466
Arsenic (As)	0.00126	0.00153	0.00181	0.000125	0.00979	0.0112	0.00276	0.00916	0.00607	0.00531	0.00663	0.0016	0.00657
Cadmium (Cd)	0.000019	<0.0000050	0.000006	0.000032	0.0105	0.0109	0.00578	0.0125	0.0118	0.0116	0.012	0.000026	0.0114
Calcium (Ca)	18.8	18.4	18.6	18.2	664	709	167	547	528	599	608	22.3	595
Chromium (Cr)	<0.00010	<0.00010	<0.00010	0.00011	0.00028	<0.00010	<0.00010	<0.00010	<0.00010	<0.00050	<0.00050	0.00014	<0.00050
Cobalt (Co)	0.000029	0.000016	0.000014	0.000021	0.00179	0.00195	0.000598	0.0017	0.00173	0.0018	0.00195	0.000013	0.00179
Copper (Cu)	0.000284	0.000426	0.000465	0.000455	0.55	0.68	0.142	0.454	0.403	0.303	0.376	0.000815	0.365
Iron (Fe)	0.122	0.030	0.048	0.041	0.194	0.258	0.187	0.451	0.126	0.048	0.053	0.037	0.063
Lead (Pb)	0.000018	<0.0000050	0.000053	0.000049	0.191	0.217	0.0359	0.161	0.11	0.0336	0.0379	0.000602	0.042
Magnesium (Mg)	4.3	3.57	4.07	5.46	2.1	2.23	0.763	2.06	2.09	2.51	2.69	4.18	2.68
Manganese (Mn)	0.0783	0.00194	0.0123	0.00701	0.269	0.295	0.0827	0.282	0.324	0.376	0.431	0.00274	0.428
Mercury (Hg)		<0.00001					<0.00001		<0.00001				
Molybdenum (Mo)	0.0011	0.000992	0.00115	0.000313	0.0855	0.136	0.0166	0.0712	0.0585	0.0349	0.0907	0.00107	0.0925
Nickel (Ni)	0.000385	0.00034	0.000472	0.00081	0.00653	0.007	0.00214	0.00678	0.00651	0.0072	0.00768	0.000476	0.00743
Phosphorus (P)	0.0206	0.0148	0.0152	0.0039	0.12	0.141	0.0386	0.123	0.0871	0.081	0.038	0.016	0.089
Potassium (K)	0.959	0.701	0.712	0.87	55.4	58.8	13.5	42.4	39.8	41.1	45.5	0.719	46.6
Selenium (Se)	0.000427	0.000364	0.000375	0.00023	2.56	3.2	0.662	1.75	1.55	2.16	1.89	0.000454	1.73
Silicon (Si)	4.1	2.67	1.36	3.6	1.87	1.91	0.507	1.69	1.58	1.91	1.94	2.68	1.87
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.00553	0.00383	0.00099	0.00514	0.00241	0.00238	0.00424	<0.0000050	0.00255
Sodium (Na)	1.2	0.949	1.07	1.34	202	215	48.1	152	142	166	170	1.08	173
Strontium (Sr)	0.0494	0.0488	0.0514	0.0598	2.75	2.96	0.619	2.32	2.27	2.15	2.45	0.0579	2.35
Thallium (Tl)	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.00123	0.00129	0.000271	0.00109	0.000819	0.00126	0.00127	<0.0000020	0.001
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.0010
Zinc (Zn)	0.00299	0.00115	0.0011	0.00419	0.899	0.963	0.469	1.16	1.26	1.29	1.39	0.00603	1.33
SAD and WAD Cyanide													
Cyanide + Thiocynate													
Weak Acid Dissoc. Cyanide (CN)		<0.00050			0.0166	0.0152	0.00248	0.0114	0.00567	0.0145	0.0135		

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	W9	W9	W9	W15	W15	W15	W22	W22	W22	W31	W31	W31
Sampling Date	2016-02-01	2016-06-08	2016-08-17	2016-08-17	2016-09-21	2016-10-11	2016-04-25	2016-07-18	2016-10-11	2016-06-06	2016-07-18	2016-10-11
Lab Report ID	B608925	B646178	B673226	B673226	B683332	B690400	B632583	B660054	B690400	B645276	B660054	B690400
Field Parameters												
Temperature (°C)	-1.18	1.31	2.09	6.41	4.82	*	-0.06	13.23	*	5.23	8.49	*
pH	7.33	8.02	7.67	7.4	7.91	*	7.65	8.04	*	7.79	8.28	*
Specific Conductivity (µS/cm^3)	254	334	191	86	143	*	194	219	*	100	152	*
Conductivity (µS/cm)	127	183	338	133	87	*	101	170	*	62	104	*
Physical Parameters												
Temperature (°C)	1	4	9.5	9.5	1.3	1.2	4.7	3.7	1.2	1.2	3.7	1.2
Conductivity (µS/cm)	344	339	348	140	3000	135	199	221	262	101	154	153
Hardness (mg/L)	176	178	187	60.2	1590	61.2	91.1	122	140	49.2	81.2	70.8
Total Suspended Solids (mg/L)	<4.0	<4.0	<4.0	<4.0	5	<4.0	7.8	<4.0	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	164	198	224	78	2790	66	102	128	148	74	86	78
pH	8.26	8.17	8.23	8.02	6.82	7.7	8.12	8.17	8.17	7.92	8.03	8.04
Turbidity (NTU)	<0.10	0.26	<0.10	<0.10	8.01	0.15	2.1	0.35	1.35	<0.10	0.11	0.12
DOC (mg/L)	2.08	2.88	1.59				3.98			2.39	0.65	4.66
Major Anions (mg/L)												
Alkalinity-Total	130	137	132	58.1	9.36	50.3	83.3	90.5	102	48.5	69.2	68.1
Acidity-Total	<0.50	<0.50	<0.50	<0.50	2.35	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromide	<0.010	<0.010	<0.010	<0.010	0.132	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloride	0.97	1	<1.0	<1.0	230	<1.0	<0.50	0.71	<1.0	0.74	0.81	<1.0
Fluoride	0.1	0.11	0.095	0.049	0.18	0.027	0.063	0.081	0.07	0.025	0.033	0.026
Sulphate	47.9	48.9	55	13	1700	15	20.1	27.2	36	6.4	8.86	11
Nutrient Parameters (mg/L)												
Ammonial Nitrogen	<0.0050	0.0065	0.019	0.047	0.44	0.017	0.061	0.034	0.043	0.017	0.029	0.015
Nitrate Nitrogen	0.31	<0.20	<0.20	0.24	0.21	0.36	0.35	<0.20	<0.20	<0.20	<0.20	<0.20
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate	0.0047	0.0033	0.0033	0.001	0.0051	<0.0010	0.0027	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
Total Metals (mg/L)												
Aluminum (Al)	0.00312	0.00413	0.00346	0.015	0.024	0.0132	0.0806	0.00945	0.0719	0.0166	0.00886	0.00655
Antimony (Sb)	0.000135	0.000124	0.000128	0.000151	0.0437	0.000022	<0.000050	0.000073	0.00009	<0.000020	<0.000020	<0.000020
Arsenic (As)	0.000282	0.000333	0.000229	0.000119	0.00742	0.000092	0.000375	0.00023	0.000415	0.000147	0.000185	0.000136
Cadmium (Cd)	0.00126	0.00131	0.00134	0.00006	0.0121	0.000006	0.000037	0.000029	0.000065	<0.0000050	0.000008	0.000009
Calcium (Ca)	50.2	49.5	51.9	21.3	632	22.1	23.7	32.5	37.1	18	29.7	25.9
Chromium (Cr)	<0.00010	<0.00010	<0.00010	0.00019	<0.00050	0.00014	<0.00050	0.00021	0.0004	0.00046	<0.00010	<0.00010
Cobalt (Co)	0.000007	0.000012	0.000008	0.000032	0.00177	0.000025	0.000213	0.000019	0.00017	0.000026	0.000019	0.00002
Copper (Cu)	0.000418	0.000737	0.0006	0.0055	0.364	0.000468	0.00117	0.000756	0.00138	0.00146	0.000962	0.000784
Iron (Fe)	0.0086	0.0062	0.006	0.021	0.218	0.0195	0.285	0.0286	0.297	0.005	0.0025	0.0032
Lead (Pb)	0.000008	0.000016	0.000024	0.00145	0.0796	0.000037	0.000207	0.000927	0.000803	<0.0000050	0.000104	0.000082
Magnesium (Mg)	12.3	13.2	13.9	1.67	2.6	1.46	7.76	9.97	11.5	1.03	1.7	1.51
Manganese (Mn)	0.000274	0.000527	0.000603	0.00189	0.43	0.000773	0.0392	0.00295	0.0504	0.000097	0.000108	0.000162
Mercury (Hg)		<0.00001					<0.00001			<0.00001		
Molybdenum (Mo)	0.00109	0.000982	0.000959	0.000251	0.0936	0.000247	0.000629	0.000716	0.000646	0.000303	0.000354	0.000345
Nickel (Ni)	0.00271	0.00334	0.00309	0.000341	0.00722	0.00013	0.00158	0.000882	0.00179	0.000124	0.000073	0.000067
Phosphorus (P)	0.007	0.0138	0.0036	0.0067		0.002	0.036	0.0061		<0.0020	0.0043	<0.0020

Sample Location	W9	W9	W9	W15	W15	W15	W22	W22	W22	W31	W31	W31
Sampling Date	2016-02-01	2016-06-08	2016-08-17	2016-08-17	2016-09-21	2016-10-11	2016-04-25	2016-07-18	2016-10-11	2016-06-06	2016-07-18	2016-10-11
Lab Report ID	B608925	B646178	B673226	B673226	B683332	B690400	B632583	B660054	B690400	B645276	B660054	B690400
Potassium (K)	1.27	1.27	1.05	0.489	46.8	0.354	0.87	0.883	0.83	0.352	0.385	0.368
Selenium (Se)	0.00408	0.00364	0.00362	0.00033	1.49	0.000311	0.000449	0.000451	0.000695	0.000197	0.000212	0.000307
Silicon (Si)	3.53	3.53	3.23	2.7	2.24	2.74	4.04	3.87	4.41	2.39	3.36	2.85
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.00454	<0.0000050	<0.0000050	<0.0000050	<0.000010	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	1.43	1.28	1.37	1.26	165	0.962	1.47	1.78	1.84	0.896	1.27	1.15
Strontium (Sr)	0.17	0.19	0.153	0.0354	2.62	0.0362	0.0978	0.126	0.147	0.012	0.0184	0.0173
Thallium (Tl)	<0.0000020	<0.0000020	0.000002	<0.0000020	0.00107	<0.0000020	0.000003	0.000002	0.000002	<0.0000020	<0.0000020	<0.0000020
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.0010	<0.00020	<0.00050	<0.00020	0.0003	0.00036	0.00052	0.00033
Zinc (Zn)	0.0973	0.113	0.107	0.0177	1.36	0.00056	0.0032	0.00454	0.0075	0.00035	0.00064	0.001
Dissolved Metals (mg/L)												
Aluminum (Al)	0.00337	0.00256	0.00331	0.00313	0.0094	0.00473	0.00639	0.00503	0.00362	0.0148	0.00746	0.00854
Antimony (Sb)	0.000135	0.000106	0.000125	0.000026	0.0463	0.000027	0.000099	0.000068	0.000069	<0.000020	<0.000020	0.000033
Arsenic (As)	0.000258	0.000303	0.000243	0.000103	0.00663	0.000096	0.000299	0.000256	0.000192	0.000167	0.000134	0.00014
Cadmium (Cd)	0.00116	0.00138	0.00138	<0.0000050	0.0117	0.000009	0.000017	0.000021	0.000009	<0.0000050	<0.0000050	0.000016
Calcium (Ca)	46.3	52.4	53.6	23.8	602	22.6	23.6	32	35.1	17.5	28.4	26.9
Chromium (Cr)	<0.00010	<0.00010	<0.00010	0.00011	<0.00050	0.00014	0.00012	0.00016	0.00017	0.00012	<0.00010	0.00011
Cobalt (Co)	0.000007	0.000011	0.000007	0.000012	0.00182	0.000013	0.000024	0.000016	0.000018	0.000023	0.000017	0.000022
Copper (Cu)	0.000483	0.000731	0.000571	0.000505	0.337	0.000521	0.000587	0.000662	0.000436	0.00151	0.000929	0.000913
Iron (Fe)	0.001	0.007	0.003	0.002	0.054	0.005	0.033	0.015	0.019	0.002	0.001	0.008
Lead (Pb)	<0.0000050	<0.0000050	0.000062	0.000047	0.041	0.000303	0.000031	0.000504	0.000031	0.000006	0.000026	0.000855
Magnesium (Mg)	12.1	12.4	12.3	1.49	2.64	1.47	7.67	9.99	10.7	1.02	1.66	1.55
Manganese (Mn)	<0.000050	0.00011	0.0001	0.000156	0.416	0.000263	0.00299	0.00133	0.003	0.000063	0.000057	0.000479
Mercury (Hg)		<0.00001					<0.00001			<0.00001		
Molybdenum (Mo)	0.000998	0.000954	0.000991	0.000236	0.0889	0.000249	0.000567	0.000707	0.000626	0.000308	0.000337	0.000383
Nickel (Ni)	0.00259	0.0032	0.003	0.0001	0.00716	0.000101	0.000726	0.000701	0.000803	0.000109	0.000066	0.000088
Phosphorus (P)	<0.0020	0.0053	0.0054	0.0033	0.09	<0.0020	0.0084	0.004	<0.0020	0.0022	0.0029	0.002
Potassium (K)	1.2	1.12	1.05	0.346	45.4	0.344	0.835	0.847	0.784	0.356	0.379	0.374
Selenium (Se)	0.00416	0.00373	0.00353	0.00028	1.68	0.000335	0.000268	0.000448	0.000551	0.000222	0.000191	0.000309
Silicon (Si)	3.45	3.81	3.37	2.77	1.95	2.64	3.91	3.96	4	2.5	3.39	2.73
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.00309	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	1.48	1.21	1.28	0.985	166	0.979	1.46	1.73	1.77	0.9	1.25	1.22
Strontium (Sr)	0.149	0.173	0.16	0.0377	2.3	0.0355	0.101	0.122	0.14	0.0131	0.0185	0.0178
Thallium (Tl)	0.000002	<0.0000020	0.000003	<0.0000020	0.00102	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.0010	<0.00020	<0.00020	<0.00020	<0.00020	0.00044	0.00049	0.00035
Zinc (Zn)	0.0957	0.117	0.107	0.00072	1.33	0.00214	0.00106	0.0028	0.00112	0.00046	0.00055	0.00259
SAD and WAD Cyanide												
Cyanide + Thiocynate												
Weak Acid Dissoc. Cyanide (CN)		<0.00050					<0.00050			0.00069		

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	W71	W71	W71	W71	W72	W72	W72	W72	W72	W73	W73	W73	W73	W73
Sampling Date	2016-01-15	2016-04-25	2016-07-18	2016-10-10	2016-01-15	2016-04-25	2016-07-18	2016-10-10	2016-12-14	2016-01-15	2016-04-25	2016-07-18	2016-10-10	2016-12-14
Lab Report ID	B603927	B632583	B660054	B690400	B603927	B632583	B660054	B690400	B6B2438	B603927	B632583	B660054	B690400	B6B2438
Field Parameters														
Temperature (°C)	*	-0.08	1.95	*	*	0.7	7.41	*	-0.08	*	0.28	9.2	*	-0.09
pH	*	8	7.73	*	*	8.02	8.07	*	9.93	*	8.06	8.14	*	8.4
Specific Conductivity (µS/cm^3)	*	616	648	*	*	204	369	*	486	*	191	218	*	232
Conductivity (µS/cm)	*	321	363	*	*	109	245	*	253	*	101	153	*	121
Physical Parameters														
Temperature (°C)	1.3	4.7	3.7	1.2	1.3	4.7	3.7	1.2	6.7	1.3	4.7	3.7	1.2	6.7
Conductivity (µS/cm)	478	618	656	657	774	209	374	394	490	280	198	221	234	280
Hardness (mg/L)	257	329	395	358	427	108	210	210	254	144	93.5	123	117	138
Total Suspended Solids (mg/L)	<4.0	<4.0	<4.0	<4.0	15.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	326	362	408	402	506	124	214	226	310	174	104	130	118	168
pH	8.01	8.36	8.38	8.34	7.99	8.05	8.29	8.19	8.14	8.12	8.15	8.12	8.13	8.08
Turbidity (NTU)		0.31	0.61	0.28		3.04	0.55	0.9	0.57		1.23	0.51	0.46	0.42
DOC (mg/L)		6.22				15.4					4.23			
Major Anions (mg/L)														
Alkalinity-Total	200	244	257	265	306	85.9	149	157	213	126	89.6	98.3	99.4	124
Acidity-Total		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
Bromide		<0.010	<0.010	<0.010		<0.010	<0.010	<0.010	<0.010		<0.010	<0.010	<0.010	<0.010
Chloride	0.57	2	0.96	<1.0	<0.50	1.3	1.2	<1.0	0.76	<0.50	0.79	<0.50	<1.0	<0.50
Fluoride	0.19	0.59	0.68	0.69	0.73	0.09	0.18	0.16	0.19	0.059	0.046	0.048	0.047	0.063
Sulphate	69.6	115	109	110	131	25.6	56.3	54	66.1	25	15	19.5	25	25.3
Nutrient Parameters (mg/L)														
Ammonial Nitrogen	0.028	0.028	0.033	0.052	<0.0050	0.046	0.046	0.064	0.063	0.008	0.031	0.022	0.049	0.071
Nitrate Nitrogen	0.57	<0.20	<0.20	<0.20	0.38	0.28	<0.20	0.56	<0.20	0.38	0.28	<0.20	0.24	<0.20
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate		0.012	0.01	0.01		0.0077	0.014	0.013	0.017		0.0054	0.0021	0.0012	0.0038
Total Metals (mg/L)														
Aluminum (Al)	0.057	0.0393	0.0128	0.00639	0.152	0.167	0.0123	0.0184	0.00438	0.0131	0.0266	0.0108	0.00534	0.00957
Antimony (Sb)	0.000176	0.000404	0.000493	0.000457	0.000641	0.000166	0.000268	0.000172	0.000127	0.000127	0.000078	0.000109	0.000094	0.000103
Arsenic (As)	0.00151	0.00027	0.000326	0.0003	0.000698	0.00236	0.00197	0.00203	0.00149	0.000208	0.000324	0.000251	0.000229	0.000255
Cadmium (Cd)	0.000407	0.00322	0.00316	0.00323	0.00573	0.000501	0.000479	0.000307	0.000242	0.000013	0.000015	0.000011	0.00001	<0.0000050
Calcium (Ca)	65.3	89.4	106	98.2	115	27.8	53.2	46.7	63.7	38.7	23.9	34.3	32.5	36.3
Chromium (Cr)	0.00015	<0.00050	<0.00010	<0.00010	<0.00050	<0.00050	0.00011	0.00012	<0.00010	0.00033	<0.00050	0.00027	0.00029	0.0003
Cobalt (Co)	0.000106	0.000155	0.00008	0.000049	0.000302	0.000288	0.00006	0.000089	0.000094	0.000019	0.000051	0.000028	0.000019	0.000013
Copper (Cu)	0.000749	0.00078	0.000585	0.000534	0.00322	0.00235	0.000752	0.00079	0.000367	0.00101	0.00174	0.00115	0.000801	0.000572
Iron (Fe)	0.166	0.0977	0.0532	0.0258	0.497	0.715	0.145	0.139	0.0726	0.0499	0.256	0.0598	0.0508	0.0683
Lead (Pb)	0.000987	0.000098	0.000062	0.000017	0.00264	0.000391	0.000102	0.000069	0.000138	0.00358	<0.000050	0.000031	0.000075	0.000058
Magnesium (Mg)	22.8	25.7	31.7	27.3	33.7	9.43	18.7	22.7	23.1	11.6	8.21	9.08	8.67	11.6
Manganese (Mn)	0.146	0.0204	0.00849	0.00423	0.0435	0.165	0.0818	0.132	0.252	0.00575	0.0393	0.0141	0.0081	0.0122
Mercury (Hg)		<0.00001				<0.00001			0.00351		<0.00001			0.000505
Molybdenum (Mo)	0.00333	0.00369	0.00555	0.00528	0.00533	0.00168	0.00337	0.00268	0.00364	0.000529	0.000413	0.000567	0.000466	0.000599
Nickel (Ni)	0.00386	0.0275	0.0314	0.029	0.0408	0.00569	0.00516	0.00495	0.0165	0.000621	0.00112	0.000797	0.000623	0.0093
Phosphorus (P)	0.0304	0.054	0.017	0.0145		0.062	0.0248	0.0179	0.873	0.0069	0.025	0.0072	0.003	0.32

Sample Location	W71	W71	W71	W71	W72	W72	W72	W72	W72	W73	W73	W73	W73	W73
Sampling Date	2016-01-15	2016-04-25	2016-07-18	2016-10-10	2016-01-15	2016-04-25	2016-07-18	2016-10-10	2016-12-14	2016-01-15	2016-04-25	2016-07-18	2016-10-10	2016-12-14
Lab Report ID	B603927	B632583	B660054	B690400	B603927	B632583	B660054	B690400	B6B2438	B603927	B632583	B660054	B690400	B6B2438
Potassium (K)	0.973	0.76	0.687	0.65	0.85	0.83	0.757	0.808	0.00123	0.364	0.56	0.265	0.249	0.00103
Selenium (Se)	0.0021	0.00329	0.0051	0.00552	0.00534	0.000952	0.00219	0.00116	4.78	0.0011	0.000668	0.000674	0.000683	4.66
Silicon (Si)	4.97	4.11	4.47	4.01	4.56	3.29	4.02	4.3	<0.0000050	4.69	4.07	4.48	4.15	<0.0000050
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000012	<0.0000050	<0.0000050	<0.0000050	2.36	<0.0000050	<0.0000050	<0.0000050	<0.0000050	1.36
Sodium (Na)	2.22	0.73	0.917	0.801	1.01	0.91	1.66	2.21	0.305	1.35	1.01	1.17	1.11	0.149
Strontium (Sr)	0.325	0.236	0.27	0.264	0.332	0.122	0.248	0.311	<0.0000020	0.149	0.092	0.116	0.113	<0.0000020
Thallium (Tl)	<0.0000020	0.000004	0.000004	0.000003	0.000009	0.000004	0.000002	0.000002	<0.00020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.00020
Vanadium (V)	<0.00020	<0.00050	0.00029	0.00022	0.00075	<0.00050	0.00023	0.00024	0.0419	<0.00020	<0.00050	<0.00020	<0.00020	0.00074
Zinc (Zn)	0.0525	0.622	0.581	0.576	0.851	0.0494	0.056	0.0548		0.00209	0.0015	0.001	0.00079	
Dissolved Metals (mg/L)									**0.0217**					**0.00224**
Aluminum (Al)	0.0194	0.00399	0.00323	0.00281	0.00475	0.0178	0.00287	0.00597	0.000133	0.00826	0.00719	0.00512	0.00267	0.000114
Antimony (Sb)	0.000261	0.000443	0.000492	0.000495	0.000551	0.000141	0.000258	0.000177	0.00188	0.00014	0.000094	0.000112	0.000094	0.000183
Arsenic (As)	0.00125	0.000231	0.000323	0.0003	0.000334	0.00132	0.00166	0.00146	0.000414	0.000217	0.000255	0.000259	0.000209	0.000007
Cadmium (Cd)	0.000353	0.003	0.00294	0.00314	0.0041	0.000233	0.000328	0.000221	66.2	0.000024	0.000012	0.000013	0.000006	35.6
Calcium (Ca)	64.4	85.7	106	99.9	116	26.6	52.9	55.2	0.00011	36.8	24.7	33.5	33.4	0.00029
Chromium (Cr)	0.00015	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.000122	0.00035	0.00022	0.00027	0.00028	0.000008
Cobalt (Co)	0.000077	0.000059	0.000064	0.000032	0.000019	0.000057	0.000037	0.000052	0.000664	0.000016	0.000023	0.000017	0.000013	0.000478
Copper (Cu)	0.00381	0.000378	0.000571	0.000581	0.000871	0.0011	0.000545	0.000708	0.191	0.00179	0.00122	0.00146	0.000775	0.0194
Iron (Fe)	0.056	0.014	0.017	0.012	0.012	0.149	0.083	0.091	0.001	0.037	0.125	0.032	0.034	0.000
Lead (Pb)	0.0155	<0.0000050	0.000309	0.000044	0.00163	0.000021	<0.0000050	0.000203	22.8	0.0113	<0.0000050	0.000625	0.000019	11.3
Magnesium (Mg)	22.2	26.2	30.8	28.1	35.3	9.01	17.8	17.6	0.273	11.9	8.21	9.74	8.66	0.00187
Manganese (Mn)	0.125	0.015	0.00634	0.00337	0.00589	0.0683	0.0646	0.094		0.00215	0.00642	0.00452	0.00524	
Mercury (Hg)		<0.00001				<0.00001			0.0037		<0.00001			0.000569
Molybdenum (Mo)	0.00359	0.00356	0.00538	0.00514	0.00515	0.00158	0.00304	0.00275	0.00371	0.000528	0.000385	0.000502	0.000465	0.000548
Nickel (Ni)	0.00482	0.0266	0.0305	0.0292	0.0348	0.00413	0.00475	0.00385	0.0222	0.000638	0.00094	0.00082	0.000574	0.004
Phosphorus (P)	0.103	0.0161	0.0148	0.0128	0.0199	0.0289	0.0188	0.0143	0.925	0.0066	0.0175	0.0051	<0.0020	0.327
Potassium (K)	1.07	0.73	0.668	0.652	0.821	0.748	0.673	0.625	0.0013	0.37	0.525	0.274	0.25	0.000953
Selenium (Se)	0.00221	0.00291	0.00521	0.00535	0.0064	0.000629	0.00207	0.00124	5.14	0.00115	0.000368	0.000641	0.000665	4.47
Silicon (Si)	5.03	4.12	4.43	3.8	4.36	2.96	3.98	4.11	<0.0000050	4.82	4.06	4.3	4.13	<0.0000050
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	2.28	<0.0000050	<0.0000050	0.000005	<0.0000050	1.31
Sodium (Na)	2.46	0.783	0.898	0.846	1.06	0.952	1.59	1.76	0.337	1.42	0.988	1.25	1.15	0.151
Strontium (Sr)	0.309	0.234	0.263	0.263	0.322	0.122	0.228	0.242	0.000002	0.151	0.0935	0.11	0.113	<0.0000020
Thallium (Tl)	0.000002	<0.0000020	0.000003	<0.0000020	0.000003	<0.0000020	<0.0000020	<0.0000020	<0.00020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.00020
Vanadium (V)	<0.00020	<0.00020	0.00024	0.00021	<0.00020	<0.00020	<0.00020	<0.00020	0.0481	<0.00020	<0.00020	<0.00020	<0.00020	0.0005
Zinc (Zn)	0.0632	0.587	0.568	0.578	0.781	0.0333	0.0496	0.0428		0.006	0.00162	0.00221	0.00062	
SAD and WAD Cyanide														
Cyanide + Thiocynate														
Weak Acid Dissoc. Cyanide (CN)		<0.00050				<0.00050					<0.00050			

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	W80	W80	W80	W80	W81	W81	W82	W82	W82	W82
Sampling Date	2016-01-15	2016-06-07	2016-08-17	2016-10-11	2016-08-17	2016-10-10	2016-06-05	2016-07-18	2016-08-17	2016-10-11
Lab Report ID	B603927	B646178	B673226	B690400	B673226	B690400	B645276	B660054	B673226	B690400
Field Parameters										
Temperature (°C)	*	5.8	9.44	*	7.38	*	5.03	11.25	3.97	*
pH	*	7.81	7.81	*	7.76	*	7.53	7.89	7.3	*
Specific Conductivity (µS/cm^3)	*	139	123	*	98	*	207	295	1177	*
Conductivity (µS/cm)	*	88	127	*	147	*	128	217	165	*
Physical Parameters										
Temperature (°C)	1.3	4	9.5	1.2	9.5	1.2	1.2	3.7	9.5	1.2
Conductivity (µS/cm)	148	147	187	185	154	156	213	298	284	285
Hardness (mg/L)	71.2	67.6	92.5	85.7	74.3	70.7	104	155	139	139
Total Suspended Solids (mg/L)	4.8	<4.0	<4.0	<4.0	<4.0	4	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	88	90	116	90	86	72	132	182	178	160
pH	7.97	7.89	8.14	8.04	8.03	8.02	8.08	8.14	8.09	8.09
Turbidity (NTU)		0.44	0.48	0.26	0.17	1.33	1.05	1.29	0.57	0.99
DOC (mg/L)		2.8					3.49	1.18	2.2	4.24
Major Anions (mg/L)										
Alkalinity-Total	63.6	59.7	78.3	73.8	65.6	64.8	65.5	104	97.4	97.1
Acidity-Total		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.67	<0.50	<0.50
Bromide		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloride	0.67	0.82	<1.0	<1.0	<1.0	<1.0	1.2	1	<1.0	<1.0
Fluoride	0.032	0.046	0.18	0.045	0.11	0.03	0.2	0.12	0.66	0.098
Sulphate	13.5	15.1	20	22	13	14	36.5	50.7	47	46
Nutrient Parameters (mg/L)										
Ammonial Nitrogen	0.011	0.034	0.032	0.038	0.019	0.015	0.015	0.047	0.053	0.028
Nitrate Nitrogen	0.62	<0.20	<0.20	0.41	0.32	0.42	<0.20	<0.20	0.36	0.36
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate		0.0016	0.0044	0.0019	<0.0010	0.0022	0.0093	0.011	0.0089	0.0065
Total Metals (mg/L)										
Aluminum (Al)	0.0912	0.0304	0.0114	0.00862	0.00465	0.0841	0.0183	0.0352	0.014	0.0305
Antimony (Sb)	<0.000050	0.000035	0.000041	0.000046	0.000033	0.000033	0.00028	0.000289	0.000228	0.000222
Arsenic (As)	0.00019	0.000217	0.0003	0.000189	0.000129	0.000153	0.000276	0.000226	0.000168	0.000179
Cadmium (Cd)	0.00012	0.000013	0.000016	0.000021	0.000035	0.000076	0.00249	0.00154	0.00156	0.00145
Calcium (Ca)	24.6	21.9	28.2	26.5	25.8	24.3	33.4	53.9	47.5	48.5
Chromium (Cr)	<0.00050	0.00013	0.00011	<0.00010	0.00011	0.00031	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt (Co)	0.00017	0.000043	0.000052	0.000047	0.000022	0.000131	0.000182	0.000373	0.000229	0.000441
Copper (Cu)	0.00142	0.0008	0.000491	0.000464	0.000475	0.00109	0.00206	0.00322	0.00158	0.00185
Iron (Fe)	0.224	0.0933	0.159	0.0831	0.0172	0.172	0.259	0.321	0.218	0.239
Lead (Pb)	0.000381	0.000031	0.00002	0.000034	0.000006	0.000057	0.00027	0.000725	0.000275	0.000579
Magnesium (Mg)	2.35	3.16	5.38	4.74	2.43	2.41	5.04	5.02	5.01	4.25
Manganese (Mn)	0.0457	0.0125	0.0391	0.0356	0.0101	0.025	0.0866	0.111	0.1	0.127
Mercury (Hg)		<0.00001					<0.00001			
Molybdenum (Mo)	0.000373	0.00038	0.000467	0.000387	0.000328	0.000339	0.000485	0.000388	0.000325	0.000328
Nickel (Ni)	0.00039	0.000295	0.000324	0.000237	0.000152	0.000346	0.0125	0.0108	0.00809	0.00804
Phosphorus (P)		0.0097	0.0052	0.0049	<0.0020	0.0128	0.0233	0.0258	0.0152	0.0169

Sample Location	W80	W80	W80	W80	W81	W81	W82	W82	W82	W82
Sampling Date	2016-01-15	2016-06-07	2016-08-17	2016-10-11	2016-08-17	2016-10-10	2016-06-05	2016-07-18	2016-08-17	2016-10-11
Lab Report ID	B603927	B646178	B673226	B690400	B673226	B690400	B645276	B660054	B673226	B690400
Potassium (K)	0.52	0.519	0.562	0.529	0.42	0.437	0.686	1	1.04	1.15
Selenium (Se)	0.000837	0.000764	0.000564	0.000891	0.000593	0.000568	0.0024	0.00241	0.00187	0.00288
Silicon (Si)	3.44	2.92	3.09	3.22	2.83	3.07	3.8	3.51	3.1	3.27
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000006	<0.0000050	<0.0000050
Sodium (Na)	1.25	0.898	1.16	1.04	1.08	1.05	1.24	1.39	1.48	1.24
Strontium (Sr)	0.0408	0.0454	0.055	0.054	0.0438	0.0426	0.0881	0.134	0.12	0.126
Thallium (Tl)	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.000004	0.000007	0.000004	0.000005
Vanadium (V)	0.00057	<0.00020	<0.00020	<0.00020	<0.00020	0.00035	<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn)	0.0064	0.00081	0.00062	0.00149	0.0016	0.0036	0.207	0.163	0.177	0.166
Dissolved Metals (mg/L)										
Aluminum (Al)	0.00321	0.00875	0.00314	0.00323	0.00439	0.00592	0.0105	0.0142	0.00526	0.00715
Antimony (Sb)	0.000034	0.000034	0.000043	0.000034	0.000037	0.000034	0.000315	0.000284	0.000231	0.000214
Arsenic (As)	0.000116	0.000241	0.000276	0.000162	0.000122	0.00012	0.000254	0.000182	0.000136	0.00013
Cadmium (Cd)	0.000034	0.000011	0.000011	0.000012	0.000033	0.000044	0.00183	0.0012	0.00123	0.000956
Calcium (Ca)	23.8	22.5	29.3	27.2	25.2	25.1	33.7	54.9	51.2	49.8
Chromium (Cr)	0.00012	<0.00010	0.00013	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt (Co)	0.000017	0.000039	0.000038	0.00004	0.000017	0.000026	0.000151	0.000242	0.000125	0.000214
Copper (Cu)	0.000406	0.00069	0.000427	0.000393	0.000444	0.000466	0.00209	0.00211	0.000949	0.00085
Iron (Fe)	0.010	0.042	0.099	0.058	0.017	0.026	0.131	0.129	0.078	0.054
Lead (Pb)	0.000307	0.000005	0.000005	0.000038	0.000009	0.00015	0.000287	0.000638	0.000062	0.000074
Magnesium (Mg)	2.29	3.37	4.97	4.84	2.25	2.38	5.11	4.97	4.66	4.23
Manganese (Mn)	0.00895	0.0103	0.0348	0.0334	0.00982	0.0126	0.0785	0.0846	0.0749	0.0789
Mercury (Hg)		<0.00001					<0.00001			
Molybdenum (Mo)	0.000369	0.00038	0.000538	0.000398	0.000325	0.000313	0.000536	0.000369	0.000329	0.000312
Nickel (Ni)	0.000097	0.00027	0.000265	0.000202	0.000136	0.000123	0.0126	0.0101	0.00769	0.00736
Phosphorus (P)	0.0075	0.0048	0.0049	0.0031	0.0044	0.0035	0.0143	0.0123	0.0138	0.0068
Potassium (K)	0.494	0.522	0.553	0.524	0.42	0.454	0.697	0.984	1.08	1.14
Selenium (Se)	0.00089	0.000909	0.000571	0.000848	0.000529	0.000646	0.00243	0.0024	0.00179	0.00274
Silicon (Si)	3.34	3.12	3.21	3.13	2.87	3.14	3.69	3.43	3.33	3.15
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	1.24	0.949	1.08	1.11	1.05	1.06	1.32	1.4	1.44	1.3
Strontium (Sr)	0.0392	0.0486	0.0572	0.0531	0.0445	0.0435	0.0971	0.128	0.129	0.123
Thallium (Tl)	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.000004	0.000006	0.000004	0.000002
Vanadium (V)	0.00023	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn)	0.00217	0.00083	0.00044	0.00099	0.00152	0.00705	0.196	0.148	0.166	0.148
SAD and WAD Cyanide										
Cyanide + Thiocynate										
Weak Acid Dissoc. Cyanide (CN)		<0.00050								

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	MW05-1A	MW05-1A	MW05-1B	MW05-1B	MW05-2A	MW05-2A	MW05-2B	MW05-2B	MW05-3A	MW05-3A	MW05-3B	MW05-3B
Sampling Date	2016-06-06	2016-08-29	2016-06-06	2016-08-29	2016-06-06	2016-08-29	2016-06-06	2016-08-29	2016-06-05	2016-08-28	2016-06-05	2016-08-28
Lab Report ID	B645276	B674769	B645276	B674769	B645276	B674769	B645276	B674769	B645276	B674769	B645276	B674769
Field Parameters												
Temperature (°C)	2.85	3.16	2.16	5.44	2.8	2.69	2.11	*	2.74	2.65	2.82	3.3
pH	8.05	7.51	7.83	7.2	7.46	7.78	7.13	*	7.45	6.76	6.66	6.4
Specific Conductivity (µS/cm^3)	250	245	192	195	372	370	345	*	457	45	257	369
Conductivity (µS/cm)	145	143	108	122	214	218	194	*	264	258	149	215
Physical Parameters												
Temperature (°C)	1.2	1	1.2	1	1.2	1	1.2	1	1.2	1	1.2	1
Conductivity (µS/cm)	251	249	200	215	372	275	301	383	432	436	407	384
Hardness (mg/L)	128	124	102	108	199	149	158	201	235	229	182	181
Total Suspended Solids (mg/L)	7	<4.0	<4.0	<4.0	<4.0	35.5	44.3	<4.0	8.3	7	<4.0	<4.0
Total Dissolved Solids (mg/L)	148	156	134	126	226	162	196	222	272	264	278	266
pH	8.27	8.17	8.45	7.98	8.35	8.01	8.11	8.33	8.32	8.22	7.88	7.69
Turbidity (NTU)	12.5	6.66	0.42	3.52	8.13	175	241	2.91	63.9	50.9	0.21	0.1
DOC (mg/L)												
Major Anions (mg/L)												
Alkalinity-Total	102	102	97.8	104	169	146	153	177	178	178	99.6	96
Acidity-Total	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.56	<0.50	1.99	<0.50	9.5	5.06
Bromide	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.024	0.021
Chloride	0.8	<1.0	<0.50	<1.0	0.71	<1.0	0.97	<1.0	1.4	<1.0	3.3	2.5
Fluoride	0.48	0.44	0.15	0.14	0.24	0.062	0.061	0.26	0.8	0.78	0.14	0.12
Sulphate	22.3	27	5.88	6.6	28.5	6.2	4.57	29	45.6	47	102	90
Nutrient Parameters (mg/L)												
Ammonial Nitrogen	0.16	0.54	0.75	0.62	0.11	0.04	0.027	0.081	0.11	0.089	0.016	0.12
Nitrate Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.23
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.34	<0.20
Dissolved Ortho-Phosphate	0.25	0.1	0.27	0.41	0.0083	<0.0010	0.002	0.0072	0.019	<0.0010	0.001	0.0053
Dissolved Metals (mg/L)												
Aluminum (Al)	0.00061	0.0033	0.0151	0.0116	0.00173	0.0023	0.00371	0.0328	0.00131	0.00195	0.00109	0.0029
Antimony (Sb)	<0.000020	0.000037	0.000061	0.000033	0.00009	<0.000020	0.000021	0.00004	0.000182	0.000243	0.00013	0.000121
Arsenic (As)	0.00928	0.00661	0.00518	0.00504	0.00195	0.0463	0.0508	0.000455	0.00156	0.00138	0.000079	0.000107
Cadmium (Cd)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000005	<0.0000050	0.000124	0.000345	0.0282	0.0267
Calcium (Ca)	42.7	42	36.2	37.4	52	47.7	52.6	53.3	78.6	76.8	61.5	60.9
Chromium (Cr)	<0.00010	<0.00010	0.00014	0.00026	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt (Co)	<0.0000050	0.000033	0.000018	0.000026	0.000011	0.000064	0.000211	0.000027	0.000144	0.000258	0.000024	0.000031
Copper (Cu)	<0.000050	<0.000050	0.000163	0.000109	<0.000050	0.000096	0.000145	0.00017	<0.000050	0.000097	0.00315	0.00308
Iron (Fe)	2.49	1.37	0.0645	2.41	0.815	17.9	21.8	0.476	5.42	3.88	0.0448	0.0155
Lead (Pb)	0.000018	0.000024	0.000091	0.000012	0.000055	0.000039	0.000147	0.000114	0.00009	0.00028	0.000127	0.000378
Magnesium (Mg)	5.15	4.77	2.85	3.49	16.8	7.28	6.55	16.5	9.44	8.97	7	7.04
Manganese (Mn)	0.241	0.246	0.0866	0.29	0.243	0.959	1.23	0.214	0.247	0.253	0.00639	0.00516
Mercury (Hg)	<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	
Molybdenum (Mo)	0.00636	0.00579	0.00233	0.00215	0.00385	0.00864	0.00221	0.00141	0.00285	0.00231	0.000449	0.000577
Nickel (Ni)	<0.000020	0.000168	0.000985	0.000515	0.000046	0.000068	0.000163	0.000138	0.00144	0.00287	0.00638	0.00624
Phosphorus (P)	0.246	0.125	0.275	0.395	0.0109	0.287	0.342	0.0133	0.0193	0.0236	0.003	0.0043

Sample Location	MW05-1A	MW05-1A	MW05-1B	MW05-1B	MW05-2A	MW05-2A	MW05-2B	MW05-2B	MW05-3A	MW05-3A	MW05-3B	MW05-3B
Sampling Date	2016-06-06	2016-08-29	2016-06-06	2016-08-29	2016-06-06	2016-08-29	2016-06-06	2016-08-29	2016-06-05	2016-08-28	2016-06-05	2016-08-28
Lab Report ID	B645276	B674769	B645276	B674769	B645276	B674769	B645276	B674769	B645276	B674769	B645276	B674769
Potassium (K)	1.16	1.18	1.38	1.25	1.56	0.324	0.264	1.67	1.62	1.46	1.3	1.29
Selenium (Se)	<0.000040	<0.000040	0.000067	0.000074	<0.000040	<0.000040	0.00005	0.000077	<0.000040	0.000069	0.00423	0.00461
Silicon (Si)	3.84	3.74	4.65	5.03	4.08	5.11	5.68	3.99	4.2	4.15	4.97	4.92
Silver (Ag)	<0.0000050	<0.0000050	0.0000	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	1.59	1.5	1.31	1.25	0.67	1.04	1.26	0.62	1.92	2.06	8.1	6.91
Strontium (Sr)	0.155	0.151	0.128	0.121	0.161	0.0955	0.0953	0.165	0.212	0.208	0.194	0.193
Thallium (Tl)	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.000004	0.000004	0.00001	0.000007
Vanadium (V)	<0.00020	0.00032	0.00167	0.00097	<0.00020	0.00029	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn)	0.00048	0.00029	0.0005	0.00092	0.001	0.00045	0.00449	0.001	0.188	0.383	2.53	2.57

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	MW05-4A	MW05-4A	MW05-4B	MW05-4B	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A
Sampling Date	**2016-06-05**	**2016-08-28**	**2016-06-05**	**2016-08-28**	**2016-02-02**	**2016-03-15**	**2016-04-25**	**2016-05-17**	**2016-06-05**	**2016-07-19**	**2016-08-28**	**2016-09-20**	**2016-10-12**	**2016-11-29**
Lab Report ID	**B645276**	**B674769**	**B645276**	**B674769**	**B608925**	**B621454**	**B632596**	**B639205**	**B645276**	**B660043**	**B674769**	**B683332**	**B690931**	**B6A8035**
Field Parameters														
Temperature (°C)	2.72	3.7	2.72	2.95	0.38	*	3.35	*	3.36	3.41	2.82	4.88	0.56	1.63
pH	6.9	7.9	6.9	7.66	*	*	*	*	7.28	7.52	5.89	7.48	7.83	7.78
Specific Conductivity (µS/cm^3)	247	327	247	245	524	*	472	*	464	480	477	387	150	480
Conductivity (µS/cm)	142	194	142	142	282	*	278	*	272	282	275	238	281	266
Physical Parameters														
Temperature (°C)	1.2	1	1.2	1	1	1.7	4.7	5	1.2	3.7	1	1.3	2	1
Conductivity (µS/cm)	332	333	248	248	461	461	489	489	470	486	500	308	481	498
Hardness (mg/L)	172	172	115	112	235	254	256	260	265	268	271	155	264	269
Total Suspended Solids (mg/L)	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	232	210	172	138	240	254	310	258	290	278	286	194	258	274
pH	8.25	8.19	7.92	7.79	8.17	8.17	7.88	8.39	8.1	8.18	8.31	7.95	8.33	8.01
Turbidity (NTU)	16	9.47	13.5	7.7	8.86		9.83		5.32	8.74	11.4	4.72	8.6	11.1
DOC (mg/L)														
Major Anions (mg/L)														
Alkalinity-Total	112	115	77.9	87.6	216	220	232	236	225	230	241	116	230	232
Acidity-Total	<0.50	<0.50	2.49	1.59	<0.50		5.21		1.53	3.85	<0.50	<0.50	<0.50	7.56
Bromide	<0.010	<0.010	<0.010	<0.010	<0.010		<0.010		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloride	0.77	<1.0	0.81	<1.0	0.84		0.89	0.63	0.88	0.73	<1.0	1.5	20	0.53
Fluoride	0.97	1	0.4	0.4	1.9		2.1	2.1	2	2	2.2	0.23	2.1	2.2
Sulphate	50.1	52	39.5	38	32		36.9	36.2	34.2	37.3	38	42	33	37.5
Nutrient Parameters (mg/L)														
Ammonial Nitrogen	0.096	0.1	0.045	0.037	0.096		0.0789	0.087	0.094	0.11	0.092	0.09	0.1	0.11
Nitrate Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	0.22	0.3	<0.20
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate	0.0027	0.0021	0.0021	0.0016	0.01				0.0076	0.0098	0.0041	0.004	0.011	0.0021
Dissolved Metals (mg/L)														
Aluminum (Al)	0.00214	0.00245	0.00258	0.175	0.00909	0.0039	0.00534	0.185	0.00538	0.00603	0.00408	0.00119	0.00417	0.00452
Antimony (Sb)	<0.000020	0.000036	0.000103	0.000265	0.00351	0.00345	0.00433	0.00173	0.0039	0.00384	0.00428	0.00018	0.00444	0.00354
Arsenic (As)	0.00377	0.00376	0.00232	0.0066	0.00591	0.00545	0.00532	0.00425	0.0051	0.00542	0.0054	0.00228	0.00522	0.00478
Cadmium (Cd)	0.000014	0.000011	0.00479	0.00779	0.000149	0.000084	0.000118	0.000241	0.000045	0.00006	0.000016	0.000032	0.000027	0.000009
Calcium (Ca)	61.9	62.5	40.8	39.7	62.3	67.3	65.7	68.3	70.4	70.8	74	50.4	70.8	71.7
Chromium (Cr)	<0.00010	<0.00010	<0.00010	0.00032	<0.00010	<0.00010	<0.00010	0.00187	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt (Co)	0.000014	0.00002	0.00351	0.00437	0.000901	0.000565	0.00032	0.000494	0.000275	0.000231	0.000157	0.000934	0.000142	0.00015
Copper (Cu)	0.000091	0.000107	0.000066	0.0037	0.000504	0.000315	0.00502	0.0052	0.000459	0.000433	0.000306	0.000196	0.000261	0.000181
Iron (Fe)	2.08	1.27	1.1	2.34	1.24	1.19	1.14	3.56	1.17	1.33	1.21	0.503	1.19	1.06
Lead (Pb)	0.000105	0.000156	0.000023	0.00161	0.000675	0.000471	0.000777	0.00856	0.0014	0.000666	0.000243	0.000036	0.000369	0.00016
Magnesium (Mg)	4.11	3.84	3.21	3.1	19.3	20.9	22.3	21.8	21.7	22	20.9	7.17	21.1	21.8
Manganese (Mn)	0.301	0.296	3.21	3.19	0.188	0.142	0.0955	0.257	0.103	0.0983	0.0702	0.889	0.0646	0.0729
Mercury (Hg)	<0.00001		<0.00001						<0.00001					
Molybdenum (Mo)	0.00424	0.00419	0.00109	0.00107	0.0068	0.00658	0.00681	0.00828	0.0069	0.00722	0.00712	0.00131	0.00701	0.00692
Nickel (Ni)	0.000076	0.000116	0.00644	0.00688	0.00259	0.00225	0.00212	0.00379	0.00197	0.00164	0.00148	0.00639	0.00135	0.00124
Phosphorus (P)	0.0046	0.0077	0.0049	0.0181	0.0203	0.0186	0.0214	0.158	0.0154	0.0144	0.0134	0.0076	0.0114	0.0143

Sample Location	MW05-4A	MW05-4A	MW05-4B	MW05-4B	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A	MW05-5A
Sampling Date	2016-06-05	2016-08-28	2016-06-05	2016-08-28	2016-02-02	2016-03-15	2016-04-25	2016-05-17	2016-06-05	2016-07-19	2016-08-28	2016-09-20	2016-10-12	2016-11-29
Lab Report ID	B645276	B674769	B645276	B674769	B608925	B621454	B632596	B639205	B645276	B660043	B674769	B683332	B690931	B6A8035
Potassium (K)	1.9	1.91	1.77	1.91	1.67	1.65	1.68	1.59	1.56	1.56	1.44	0.602	1.44	1.37
Selenium (Se)	<0.000040	<0.000040	<0.000040	0.000053	0.000119	0.000087	0.000158	0.000336	0.000103	0.000071	<0.000040	<0.000040	0.000044	<0.000040
Silicon (Si)	3.56	3.34	7.03	7.32	3.82	3.88	3.9	4.57	3.86	4.07	3.84	3.69	4.04	3.82
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	0.0000	0.0000	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	1.11	1.08	0.966	1.05	0.29	0.28	0.317	1.91	0.275	0.284	0.26	0.827	0.266	0.308
Strontium (Sr)	0.195	0.195	0.167	0.171	0.129	0.13	0.124	0.14	0.136	0.145	0.142	0.115	0.133	0.129
Thallium (Tl)	<0.0000020	<0.0000020	0.000028	0.00005	0.000008	0.000006	0.000009	0.00001	0.000009	0.000009	0.000006	0.000003	0.000004	0.000005
Vanadium (V)	<0.00020	<0.00020	<0.00020	0.00043	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn)	0.002	0.00174	0.181	0.236	0.0924	0.0666	0.0838	0.0565	0.0818	0.0712	0.0393	0.0866	0.0462	0.0237

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	MW05-5B	MW05-5B	MW05-5B	MW05-5B	MW05-5B	MW05-5B	MW05-6A	MW05-6A	MW05-6A	MW05-6A	MW05-6B	MW05-6B	MW05-6B	MW05-6B	MW05-7B	MW05-8S
Sampling Date	**2016-05-17**	**2016-06-05**	**2016-07-19**	**2016-08-28**	**2016-09-20**	**2016-10-12**	**2016-02-02**	**2016-06-06**	**2016-08-29**	**2016-11-29**	**2016-02-02**	**2016-06-06**	**2016-08-29**	**2016-11-29**	**2016-08-29**	**2016-02-03**
Lab Report ID	**B639205**	**B645276**	**B660043**	**B674769**	**B683332**	**B690931**	**B608925**	**B645276**	**B674769**	**B6A8035**	**B608925**	**B645276**	**B674769**	**B6A8035**	**B674769**	**B608925**
Field Parameters																
Temperature (°C)	*	4.33	5.7	5.03	6.07	-0.08	0.6	2.69	2.82	1.45	0.09	2.63	2.53	0.65	4.23	*
pH	*	7.31	7.52	6.47	7.57	8.14	*	7.22	7.45	7.52	*	7.21	7.41	7.87	10.36	*
Specific Conductivity (µS/cm^3)*		293	301	29	298	151	175	173	161	167	205	178	164	179		5201
Conductivity (µS/cm)	*	177	187	180	190	78	92	99	92	92	108	102	93	96	3381	*
Physical Parameters																
Temperature (°C)	5	1.2	3.7	1	1.3	2	1	1.2	1	1	1	1.2	1	1	1	1
Conductivity (µS/cm)	303	295	304	309	484	306	150	159	156	181	189	179	179	173	4450	206
Hardness (mg/L)	146	156	151	158	256	153	72.8	72.6	69.8	88.1	89.3	89.2	84.1	78.4	1280	89.8
Total Suspended Solids (mg/L)	416	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	152	204	202	190	280	170	94	122	92	102	92	126	106	96	950	108
pH	8.14	8.16	8.06	8.04	8.1	8.19	7.78	8.02	7.89	7.85	7.99	8.16	8.01	7.68	12.3	7.4
Turbidity (NTU)		7.74	5.34	1.23	10.2	4.11	6.89	10.6	4.95	<0.10	0.16	0.11	<0.10	5.1	0.11	2.73
DOC (mg/L)																
Major Anions (mg/L)																
Alkalinity-Total	113	107	115	114	224	116	60.4	62.2	59.6	86.3	88.3	83	82.8	69.1	1040	68.2
Acidity-Total		1.45	3.01	<0.50	<0.50	<0.50	<0.50	0.85	<0.50	1.5	<0.50	<0.50	0.99	2.65	<0.50	4.71
Bromide		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016	<0.010
Chloride	0.8	0.75	0.83	<1.0	1.5	6.4	0.67	0.81	<1.0	<0.50	0.88	0.7	<1.0	<0.50	<1.0	1.3
Fluoride	0.21	0.2	0.19	0.21	2	0.21	0.13	0.14	0.13	0.036	0.04	0.036	0.033	0.13	<0.010	0.25
Sulphate	47.6	40.8	44.1	52	38	46	12.9	15.3	18	8.08	9.76	8.28	8.7	16.9	<1.0	30.1
Nutrient Parameters (mg/L)																
Ammonial Nitrogen	0.021	0.036	0.021	0.067	0.12	0.058	0.029	0.011	0.07	0.033	0.0089	0.025	0.013	0.042	0.12	0.055
Nitrate Nitrogen	<0.20	<0.20	<0.20	<0.20	0.38	<0.20	<0.20	<0.20	<0.20	0.23	0.31	<0.20	0.31	<0.20	<0.20	<0.20
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate		0.0013	<0.0010	<0.0010	0.0074	0.0013	0.78	0.75	0.65	0.0043	0.013	0.0042	0.0027	0.77	<0.0010	0.08
Dissolved Metals (mg/L)																
Aluminum (Al)	0.173	0.00101	0.00334	0.00147	0.00424	0.0008	0.00276	0.00145	0.00714	0.00175	0.00985	0.00143	0.00183	0.00419	0.0872	0.00379
Antimony (Sb)	0.000362	0.000091	0.000484	0.000494	0.00352	0.000416	0.00121	0.00122	0.00109	0.000027	0.000065	0.000034	0.000028	0.000744	<0.00010	0.00253
Arsenic (As)	0.00272	0.00181	0.00266	0.00202	0.00485	0.00264	0.00582	0.00607	0.00522	0.000048	0.000105	0.00007	0.000063	0.0056	<0.00010	0.000789
Cadmium (Cd)	0.00208	0.000044	0.000033	0.000038	0.000014	0.000021	<0.0000050	0.000021	0.000019	<0.0000050	0.000019	<0.0000050	<0.0000050	0.000026	<0.000025	0.00026
Calcium (Ca)	46.6	50.3	48.7	51.4	68.8	49.6	24	23.9	23.5	30.9	31.3	31.4	29.6	26.2	512	30
Chromium (Cr)	0.00083	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00031	0.00092	0.00097	0.00091	0.00093	<0.00010	0.116	<0.00010
Cobalt (Co)	0.00449	0.000951	0.00145	0.00136	0.000187	0.00122	0.000287	0.000302	0.000263	0.000007	0.000023	0.000008	0.000009	0.000274	0.000055	0.0017
Copper (Cu)	0.00885	0.000255	0.000605	0.000242	0.000317	<0.000050	0.000086	0.000151	0.000415	0.000252	0.000816	0.000226	0.000291	0.000273	0.00159	0.000482
Iron (Fe)	0.601	0.464	0.325	0.198	1.43	0.449	1.29	1.17	0.857	0.0011	0.0306	<0.0010	0.0031	1.49	0.0057	0.961
Lead (Pb)	0.0121	0.000159	0.00007	0.000044	0.000252	0.000023	0.000042	0.000204	0.000182	0.000012	0.000282	<0.0000050	0.000009	0.000654	0.00232	0.000088
Magnesium (Mg)	7.13	7.26	7.24	7.11	20.4	7.06	3.11	3.12	2.69	2.65	2.73	2.64	2.47	3.13	<0.25	3.61

Sample Location	MW05-5B	MW05-5B	MW05-5B	MW05-5B	MW05-5B	MW05-5B	MW05-6A	MW05-6A	MW05-6A	MW05-6A	MW05-6B	MW05-6B	MW05-6B	MW05-6B	MW05-7B	MW05-8S
Sampling Date	2016-05-17	2016-06-05	2016-07-19	2016-08-28	2016-09-20	2016-10-12	2016-02-02	2016-06-06	2016-08-29	2016-11-29	2016-02-02	2016-06-06	2016-08-29	2016-11-29	2016-08-29	2016-02-03
Lab Report ID	B639205	B645276	B660043	B674769	B683332	B690931	B608925	B645276	B674769	B6A8035	B608925	B645276	B674769	B6A8035	B674769	B608925
Manganese (Mn)	0.905	0.938	0.841	0.821	0.0877	0.89	0.134	0.124	0.1	0.000065	0.00205	0.000065	0.000198	0.149	0.00073	0.186
Mercury (Hg)		<0.00001						<0.00001				<0.00001				
Molybdenum (Mo)	0.00138	0.00098	0.00124	0.00141	0.00694	0.00128	0.00152	0.00151	0.00135	0.000221	0.000282	0.000229	0.000216	0.00136	0.0181	0.00206
Nickel (Ni)	0.0291	0.00558	0.0123	0.0135	0.00143	0.0106	0.00117	0.00126	0.00116	0.00007	0.000248	0.00011	0.000132	0.00103	0.00047	0.0417
Phosphorus (P)	0.0798	0.0037	0.0053	0.0029	0.0132	0.0049	0.991	0.808	0.617	0.0084	0.0199	0.005	0.0082	0.82	<0.010	0.139
Potassium (K)	0.679	0.727	0.602	0.604	1.42	0.59	1.16	1.09	1.19	0.7	0.805	0.696	0.688	1.06	1.18	1.1
Selenium (Se)	0.000316	0.000109	0.000058	0.000123	0.000051	0.000048	<0.000040	0.000047	0.000151	0.000629	0.000651	0.000647	0.000681	<0.000040	<0.00020	0.00009
Silicon (Si)	4.09	3.74	4.19	3.77	3.64	3.87	7.2	6.97	5.77	4.07	4.41	4.42	4.1	6.56	<0.25	5.77
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.000025	<0.0000050
Sodium (Na)	1.22	0.811	0.944	0.827	0.275	0.789	1.77	1.8	1.62	1.27	1.32	1.25	1.16	2.01	2.54	1.28
Strontium (Sr)	0.115	0.12	0.125	0.122	0.127	0.117	0.0279	0.0263	0.0283	0.0439	0.0501	0.0464	0.0454	0.0256	0.0448	0.062
Thallium (Tl)	0.000027	0.000003	0.000005	<0.0000020	0.000005	0.000004	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.000010	0.000007
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.0003	<0.00020	<0.00020	<0.00020	<0.0010	0.0003
Zinc (Zn)	0.494	0.0879	0.0967	0.095	0.0577	0.0879	0.00324	0.00887	0.00885	0.00065	0.00364	0.00088	0.00063	0.00601	0.00415	1.22

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	MW06-8M	MW06-8M	MW06-8M	MW06-8S	MW06-8S	MW06-8D	MW06-8D	MW06-8D	MW06-9S	MW06-9S	MW06-9S	MW06-9S	MW06-9M	MW06-9M	MW06-10S	MW06-10S
Sampling Date	2016-02-03	2016-06-29	2016-08-28	2016-06-29	2016-08-28	2016-02-03	2016-06-30	2016-08-28	2016-03-16	2016-06-05	2016-08-28	2016-11-29	2016-06-05	2016-08-28	2016-03-15	2016-08-29
Lab Report ID	B608925	B653907	B674769	B653907	B674769	B608925	B653907	B674769	B621454	B645276	B674769	B6A8035	B645276	B674769	B621454	B674769
Field Parameters																
Temperature (°C)	*	-1.09	4.43	0.62	3.18	*	0.22	2.93	*	2.52	2.74	0.53	4.31	4.31		3.13
pH	*	*	8.39	*	8.04	*	*	6.9	*	7.81	7.18	8.3	7.63	7.17		7.65
Specific Conductivity (µS/cm^3)	*	351	391	226	206	*	498	445	*	245	244	239	374	374		277
Conductivity (µS/cm)	*	176	237	121	120	*	263	257	*	140	140	127	226	226		163
Physical Parameters																
Temperature (°C)	1	2.3	1	2.3	1	1	2.3	1	1.7	1.2	1	1	1.2	1	1.7	1
Conductivity (µS/cm)	376	382	421	203	209	453	455	457	242	246	250	246	378	378	279	285
Hardness (mg/L)	184	215	223	101	94.3	240	255	255	120	135	124		198	199	136	148
Total Suspended Solids (mg/L)	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	212	214	262	118	106	250	240	266	178	160	152	152	232	220	144	180
pH	8.47	8.37	8.3	7.66	7.49	8.22	8.35	8.34	8.05	8.19	8.13	7.98	8.33	8.28	7.97	8.22
Turbidity (NTU)	0.41	0.57	3.48	5.5	5.56	7.08	4.86	7.42		0.87	1.17	0.84	8.24	5.52		2.21
DOC (mg/L)		<0.50		<0.50			<0.50									
Major Anions (mg/L)																
Alkalinity-Total	165	169	185	68.7	66.8	229	227	215	99.3	95.8	110	96.2	163	166	120	118
Acidity-Total	<0.50	<0.50	<0.50	7.62	4.71	<0.50	<0.50	<0.50		<0.50	<0.50	0.55	<0.50	<0.50		<0.50
Bromide	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		<0.010	<0.010	<0.010	<0.010	<0.010		<0.010
Chloride	0.82	1.2	<1.0	1.4	<1.0	0.7	1.1	<1.0		0.6	<1.0	<0.50	0.65	<1.0		<1.0
Fluoride	1.2	1.3	1.3	0.27	0.27	0.89	0.91	0.91		0.84	0.82	0.79	0.95	0.96		0.22
Sulphate	34.4	36.3	38	31	34	25.1	26.7	30		26.6	29	28.5	31.4	34		31
Nutrient Parameters (mg/L)																
Ammonial Nitrogen	0.083	0.087	0.18	0.014	0.39	0.083	0.083	0.29		0.054	0.053	0.043	0.086	0.1		0.042
Nitrate Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	0.24	<0.20	<0.20		<0.20
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20		<0.20
Dissolved Ortho-Phosphate	0.0058	0.0047	0.0075	0.29	0.23	0.0045	0.0012	0.002		0.14	0.14	0.064	0.0097	0.007		0.0099
Dissolved Metals (mg/L)																
Aluminum (Al)	0.00227	0.00082	0.00606	0.00344	0.0033	0.00289	0.00144	0.00154	0.00175	0.00259	0.00195		0.00249	0.00639	0.00238	0.00241
Antimony (Sb)	0.000815	0.000867	0.00221	0.00489	0.00446	0.000263	0.000246	0.00028	0.00003	0.000075	0.00003		0.000605	0.00277	0.000389	0.000458
Arsenic (As)	0.0117	0.0119	0.0149	0.00124	0.00112	0.00462	0.00458	0.00479	0.00651	0.00448	0.0053		0.002	0.00198	0.00447	0.0054
Cadmium (Cd)	<0.0000050	<0.0000050	0.00001	0.000083	0.00016	<0.0000050	<0.0000050	0.000034	<0.0000050	<0.0000050	<0.0000050		<0.0000050	0.000014	0.000005	<0.0000050
Calcium (Ca)	39.6	48.7	52	34.4	31.6	54.7	60.8	61.3	40	45.6	41.8		60.4	60.9	47.6	52.2
Chromium (Cr)	<0.00010	0.00015	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		<0.00010	0.00015	<0.00010	<0.00010
Cobalt (Co)	0.000163	0.000174	0.000233	0.00377	0.00447	0.00005	0.000039	0.000032	0.000067	0.000047	0.000258		0.00003	0.000087	0.000117	0.000104
Copper (Cu)	0.000186	<0.000050	0.000425	<0.000050	0.000311	0.0001	<0.000050	<0.000050	0.000085	<0.000050	0.000055		<0.000050	0.000454	0.00035	<0.000050
Iron (Fe)	0.263	0.35	0.581	2.26	1.74	0.579	0.627	0.65	0.626	0.646	0.509		0.838	0.808	0.249	0.326
Lead (Pb)	0.000265	0.000015	0.00101	0.000014	0.000055	0.000075	<0.0000050	0.000018	0.000032	0.000013	0.000005		0.00004	0.000297	0.000097	0.000021
Magnesium (Mg)	20.6	22.6	22.7	3.71	3.72	25.1	24.9	24.7	4.76	5.12	4.76		11.5	11.4	4.22	4.22
Manganese (Mn)	0.0261	0.0293	0.0412	0.341	0.406	0.00994	0.00896	0.00922	0.111	0.0895	0.118		0.0176	0.0163	0.115	0.118

Sample Location	MW06-8M	MW06-8M	MW06-8M	MW06-8S	MW06-8S	MW06-8D	MW06-8D	MW06-8D	MW06-9S	MW06-9S	MW06-9S	MW06-9S	MW06-9M	MW06-9M	MW06-10S	MW06-10S
Sampling Date	2016-02-03	2016-06-29	2016-08-28	2016-06-29	2016-08-28	2016-02-03	2016-06-30	2016-08-28	2016-03-16	2016-06-05	2016-08-28	2016-11-29	2016-06-05	2016-08-28	2016-03-15	2016-08-29
Lab Report ID	B608925	B653907	B674769	B653907	B674769	B608925	B653907	B674769	B621454	B645276	B674769	B6A8035	B645276	B674769	B621454	B674769
Mercury (Hg)										<0.00001			<0.00001			
Molybdenum (Mo)	0.00535	0.00513	0.00534	0.00249	0.00261	0.00144	0.00133	0.00132	0.00429	0.00381	0.00377		0.00478	0.00476	0.0011	0.00109
Nickel (Ni)	0.00218	0.00231	0.00388	0.0423	0.046	0.000359	0.000288	0.000333	0.000136	0.000124	0.00138		0.00036	0.000616	0.000585	0.00057
Phosphorus (P)	0.0082	0.01	0.0102	0.304	0.217	0.0052	0.0044	0.0026	0.226	0.169	0.163		0.0128	0.0113	0.0122	0.0128
Potassium (K)	2.11	1.89	1.55	0.926	0.922	1.81	1.67	1.62	1.08	1.07	1.04		1.69	1.68	1.26	1.05
Selenium (Se)	<0.000040	<0.000040	<0.000040	<0.000040	0.000046	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040		0.000042	<0.000040	<0.000040	<0.000040
Silicon (Si)	3.81	4.08	4.29	5.91	6.14	4.95	4.78	5.01	4.56	4.43	4.55		3.71	3.6	3.66	3.55
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050		<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	1.75	1.38	0.697	1.01	1.03	0.417	0.363	0.374	1.01	0.849	0.886		0.291	0.317	1.39	1.09
Strontium (Sr)	0.146	0.144	0.158	0.0611	0.0658	0.171	0.167	0.178	0.147	0.143	0.149		0.0818	0.0832	0.182	0.195
Thallium (Tl)	0.000002	0.000003	0.000002	0.000011	0.000004	<0.0000020	0.000002	<0.0000020	<0.0000020	<0.0000020	<0.0000020		<0.0000020	<0.0000020	0.000002	<0.0000020
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn)	0.00536	0.0009	0.0043	1.47	1.79	0.00216	0.00022	0.0048	0.00056	0.00083	0.00771		0.00387	0.00501	0.00481	0.00184

* Indicates mis-functioning probe – measurements were not recorded

Sample Location	MW06-10M	MW06-10D	MW06-10D	MW06-11S	MW06-11S	MW06-11S	MW06-11S	MW06-11S	MW06-11S	MW06-12S	MW06-12S	MW06-12S	MW06-13	MW06-13
Sampling Date	**2016-08-29**	**2016-06-29**	**2016-08-29**	**2016-05-17**	**2016-06-05**	**2016-07-19**	**2016-08-28**	**2016-09-20**	**2016-10-12**	**2016-06-05**	**2016-08-29**	**2016-11-29**	**2016-06-06**	**2016-08-29**
Lab Report ID	**B674769**	**B653907**	**B674769**	**B639205**	**B645276**	**B660043**	**B674769**	**B683332**	**B690931**	**B645276**	**B674769**	**B6A8035**	**B645276**	**B674769**
Field Parameters														
Temperature (°C)	3.78	0.05	4.54	*	2.28	3.77	2.52	3.27	-0.08	2.73	3.4	1.1	4.58	6.9
pH	7.7	*	8.35	*	7.52	7.73	6.68	7.6	8.14	7.51	7.2	7.87	6.6	7.19
Specific Conductivity (µS/cm^3)	478	3794	493	*	383	451	448	431	151	773	62	147	309	347
Conductivity (µS/cm)	284	1982	301	*	222	268	256	252	78	444	364	409	189	228
Physical Parameters														
Temperature (°C)	1	2.3	1	5	1.2	3.7	1	1.3	2	1.2	1	1	1.2	1
Conductivity (µS/cm)	488	484	491	437	418	447	456	455	438	777	783	760	328	365
Hardness (mg/L)	285	272	263	222	222	249	240	245	239	415	419	404	155	170
Total Suspended Solids (mg/L)	8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	6.3	<4.0	<4.0	<4.0	<4.0
Total Dissolved Solids (mg/L)	298	264	274	228	246	286	264	266	242	568	560	526	208	212
pH	8.21	8.32	8.37	8.37	8.38	8.3	8.26	8.15	8.35	8.25	8.12	7.99	8.01	7.85
Turbidity (NTU)	58.8	19.3	19.2		7.29	11	9.16	16.8	10.3	34.1	13.2	21.1	0.13	0.19
DOC (mg/L)		<0.50												
Major Anions (mg/L)														
Alkalinity-Total	195	248	242	193	183	205	203	207	204	135	136	130	134	127
Acidity-Total	<0.50	1.03	<0.50		0.7	1.98	<0.50	<0.50	5.11	1.89	<0.50	2.24	7.73	2.44
Bromide	<0.010	<0.010	<0.010		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	<1.0	0.02	0.022
Chloride	<1.0	0.8	<1.0	0.64	0.82	0.54	<1.0	<1.0	1.6	0.95	<1.0	<0.50	1.5	1.1
Fluoride	0.73	1	1	2.5	2.4	2.4	2.7	2.6	2.6	0.93	0.95	0.97	0.031	0.039
Sulphate	65	23.3	28	39.1	36.6	37.9	36	35	38	241	250	265	35.8	53
Nutrient Parameters (mg/L)														
Ammonial Nitrogen	0.65	0.093	0.12	0.2	0.18	0.22	0.33	0.27	0.23	0.12	0.16	0.16	0.16	0.22
Nitrate Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.31	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nitrite Nitrogen	<0.20	<0.20	<0.20	<0.20	0.23	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Ortho-Phosphate	<0.0010	<0.0010	0.0037		0.021	0.019	0.012	0.0073	0.011	0.02	<0.0010	0.001	0.0019	<0.0010
Dissolved Metals (mg/L)														
Aluminum (Al)	0.0011	0.00074	0.00412	0.00471	0.00438	0.0042	0.00276	0.00792	0.00312	0.00125	0.00273	0.00163	0.0131	0.0576
Antimony (Sb)	<0.000020	0.000078	0.000408	0.000056	0.000333	0.000097	0.000075	0.000088	0.000073	0.000141	0.000671	0.000271	0.000038	0.000032
Arsenic (As)	0.000196	0.00073	0.000792	0.00345	0.00461	0.00384	0.00356	0.00389	0.00378	0.000822	0.00138	0.00139	0.000145	0.00018
Cadmium (Cd)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000019	<0.0000050	0.000047	0.000007	<0.0000050	0.000081	0.000119
Calcium (Ca)	95.3	72.9	70.2	59.9	61.1	68.2	66.9	68.4	66.7	130	133	126	51.4	56.6
Chromium (Cr)	<0.00010	<0.00010	0.00022	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	0.00041
Cobalt (Co)	0.000016	<0.0000050	0.000007	0.0002	0.000337	0.000356	0.000408	0.000367	0.000649	0.000364	0.00048	0.000454	0.000073	0.000081
Copper (Cu)	<0.000050	<0.000050	0.000051	0.000546	<0.000050	<0.000050	0.000113	0.000434	<0.000050	0.000177	0.000154	0.000059	0.0022	0.00233
Iron (Fe)	8.39	1.4	1.49	0.064	0.993	1.14	1.16	1.16	1.25	2.02	1.07	1.68	0.0109	0.0129
Lead (Pb)	0.000012	0.000024	0.000016	0.000172	0.000012	0.000029	0.000033	0.000761	0.000047	0.000022	0.000354	0.000053	0.000016	0.000034
Magnesium (Mg)	11.4	21.8	21.3	17.7	16.9	19.2	17.7	18.1	17.5	22.1	20.8	21.4	6.57	7.06
Manganese (Mn)	0.0725	0.0106	0.00923	0.114	0.0978	0.109	0.105	0.0964	0.132	0.154	0.151	0.164	1.12	1.32

Mercury (Hg)					<0.00001					<0.00001			<0.00001	
Molybdenum (Mo)	0.00254	0.00497	0.00844	0.0133	0.0176	0.0143	0.0138	0.0135	0.0134	0.000762	0.000858	0.00083	0.000147	0.000268
Nickel (Ni)	0.000077	0.000036	0.000355	0.000195	0.00106	0.00082	0.000783	0.00094	0.00286	0.000968	0.00187	0.00109	0.00284	0.00479
Phosphorus (P)	0.0102	0.0059	0.0096	<0.0020	0.0239	0.0291	0.0231	0.0128	0.0177	0.0122	0.0035	0.0209	0.0115	0.0083
Potassium (K)	1.88	1.97	1.76	1.63	1.43	1.54	1.46	1.54	1.43	3.54	3.62	4.09	1.22	1.03
Selenium (Se)	<0.000040	<0.000040	<0.000040	0.00005	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	0.000079	<0.000040	<0.000040	0.000636	0.000381
Silicon (Si)	4.38	4.56	4.34	6.8	5.81	5.98	5.37	4.91	5.7	3.77	3.91	4.35	4.65	4.83
Silver (Ag)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na)	3.14	0.834	0.784	3.66	2.65	1.63	1.37	1.46	1.09	4.54	4.68	5.59	5.92	6.42
Strontium (Sr)	0.171	0.161	0.163	0.119	0.114	0.129	0.124	0.118	0.122	0.522	0.514	0.531	0.12	0.139
Thallium (Tl)	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.000002	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.000002	0.000002	<0.0000020	0.000005
Vanadium (V)	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn)	0.00062	0.00024	0.00034	0.00186	0.00081	0.00079	0.00269	0.00608	0.00851	0.00946	0.00275	0.00116	0.00213	0.00157

* Indicates mis-functioning probe – measurements were not recorded

Appendix C: Water Quality Lab Reports

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Site Location: WOLVERINE MINE
Your C.O.C. #: 08417567

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/01/26
Report #: R2122448
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B603927
Received: 2016/01/18, 10:50

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	4	2016/01/19	2016/01/19	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	4	N/A	2016/01/19	BBY6SOP-00011	SM 22 4500-Cl- G m
Conductance - water	4	N/A	2016/01/19	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	4	N/A	2016/01/19	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	2	N/A	2016/01/22	BBY7SOP-00002	EPA 6020a R1 m
Hardness Total (calculated as CaCO3)	2	N/A	2016/01/25	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	3	N/A	2016/01/25	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	1	N/A	2016/01/26	BBY7SOP-00002	EPA 6020a R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2016/01/25	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2016/01/25	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Digested LL (total)	2	2016/01/22	2016/01/22	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2016/01/22	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2016/01/25	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (total)	2	N/A	2016/01/21	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Preserved)	4	N/A	2016/01/19	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	4	N/A	2016/01/19	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	4	N/A	2016/01/19	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	4	N/A	2016/01/20	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	1	N/A	2016/01/19	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	3	N/A	2016/01/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	4	N/A	2016/01/19	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	3	N/A	2016/01/19	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2016/01/20	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	4	2016/01/20	2016/01/21	BBY6SOP-00033	SM 22 2540 C m
Total Suspended Solids	4	N/A	2016/01/22	BBY6SOP-00034	SM 22 2540 D

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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Site Location: WOLVERINE MINE
Your C.O.C. #: 08417567

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/01/26
Report #: R2122448
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B603927
Received: 2016/01/18, 10:50

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		NZ1044		NZ1045	NZ1046	NZ1047		
Sampling Date		2016/01/15		2016/01/15	2016/01/15	2016/01/15		
COC Number		08417567		08417567	08417567	08417567		
	UNITS	W71	QC Batch	W72	W73	W80	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.190	8169706	0.730	0.059	0.032	0.010	8169706
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	FIELD	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	257	8169414	427	144	71.2	0.50	8169414
Nitrate (N)	mg/L	0.57	8169456	0.38	0.38	0.62	0.20	8169456
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	252	8173970	434	141	68.8	0.50	8168933
Alkalinity (Total as CaCO3)	mg/L	200	8169768	306	126	63.6	0.50	8169768
Alkalinity (PP as CaCO3)	mg/L	<0.50	8169768	<0.50	<0.50	<0.50	0.50	8169768
Bicarbonate (HCO3)	mg/L	244	8169768	373	153	77.5	0.50	8169768
Carbonate (CO3)	mg/L	<0.50	8169768	<0.50	<0.50	<0.50	0.50	8169768
Hydroxide (OH)	mg/L	<0.50	8169768	<0.50	<0.50	<0.50	0.50	8169768
Anions								
Dissolved Sulphate (SO4)	mg/L	69.6	8170531	131	25.0	13.5	0.50	8169724
Dissolved Chloride (Cl)	mg/L	0.57	8169717	<0.50	<0.50	0.67	0.50	8169721
Nutrients								
Total Ammonia (N)	mg/L	0.028	8169700	<0.0050	0.0080	0.011	0.0050	8169700
Nitrate plus Nitrite (N)	mg/L	0.57 (1)	8169853	0.38 (1)	0.38 (1)	0.62 (1)	0.20	8169853
Nitrite (N)	mg/L	<0.20 (1)	8169854	<0.20 (1)	<0.20 (1)	<0.20 (1)	0.20	8169854
Physical Properties								
Conductivity	uS/cm	478	8169771	774	280	148	1.0	8169771
pH	pH	8.01	8169770	7.99	8.12	7.97		8169770
Physical Properties								
Total Suspended Solids	mg/L	<4.0	8171337	15.8	<4.0	4.8	4.0	8171337
Total Dissolved Solids	mg/L	326	8170311	506	174	88	10	8170311

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		NZ1044			NZ1045		
Sampling Date		2016/01/15			2016/01/15		
COC Number		08417567			08417567		
	UNITS	W71	RDL	QC Batch	W72	RDL	QC Batch
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.0194	0.00050	8171977	0.00475	0.00050	8171977
Dissolved Antimony (Sb)	mg/L	0.000261 (1)	0.000020	8171977	0.000551	0.000020	8171977
Dissolved Arsenic (As)	mg/L	0.00125	0.000020	8171977	0.000334	0.000020	8171977
Dissolved Barium (Ba)	mg/L	0.0970	0.000020	8171977	0.0636	0.000020	8171977
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8171977	<0.000010	0.000010	8171977
Dissolved Bismuth (Bi)	mg/L	0.0000110	0.0000050	8171977	<0.0000050	0.0000050	8171977
Dissolved Boron (B)	mg/L	<0.010	0.010	8171977	<0.010	0.010	8171977
Dissolved Cadmium (Cd)	mg/L	0.000353	0.0000050	8171977	0.00410	0.0000050	8171977
Dissolved Chromium (Cr)	mg/L	0.00015	0.00010	8171977	<0.00010	0.00010	8171977
Dissolved Cobalt (Co)	mg/L	0.0000770	0.0000050	8171977	0.0000190	0.0000050	8171977
Dissolved Copper (Cu)	mg/L	0.00381 (1)	0.000050	8175252	0.000871	0.000050	8171977
Dissolved Iron (Fe)	mg/L	0.0560	0.0010	8171977	0.0124	0.0010	8171977
Dissolved Lead (Pb)	mg/L	0.0155 (1)	0.0000050	8171977	0.00163	0.0000050	8171977
Dissolved Lithium (Li)	mg/L	0.00285	0.00050	8171977	0.00303	0.00050	8171977
Dissolved Manganese (Mn)	mg/L	0.125	0.000050	8171977	0.00589	0.000050	8171977
Dissolved Molybdenum (Mo)	mg/L	0.00359	0.000050	8171977	0.00515	0.000050	8171977
Dissolved Nickel (Ni)	mg/L	0.00482 (1)	0.000020	8175252	0.0348	0.000020	8171977
Dissolved Phosphorus (P)	mg/L	0.103 (1)	0.0020	8171977	0.0199	0.0020	8171977
Dissolved Selenium (Se)	mg/L	0.00221	0.000040	8171977	0.00640	0.000040	8171977
Dissolved Silicon (Si)	mg/L	5.03	0.050	8171977	4.36	0.050	8171977
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8171977	<0.0000050	0.0000050	8171977
Dissolved Strontium (Sr)	mg/L	0.309	0.000050	8171977	0.322	0.000050	8171977
Dissolved Thallium (Tl)	mg/L	0.0000020	0.0000020	8171977	0.0000030	0.0000020	8171977
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8171977	<0.00020	0.00020	8171977
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8171977	<0.00050	0.00050	8171977
Dissolved Uranium (U)	mg/L	0.00212	0.0000020	8171977	0.0157	0.0000020	8171977
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8171977	<0.00020	0.00020	8171977
Dissolved Zinc (Zn)	mg/L	0.0632	0.00010	8175252	0.781	0.00010	8171977
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8171977	<0.00010	0.00010	8171977
Dissolved Calcium (Ca)	mg/L	64.4	0.050	8173971	116	0.050	8169454
Dissolved Magnesium (Mg)	mg/L	22.2	0.050	8173971	35.3	0.050	8169454
Dissolved Potassium (K)	mg/L	1.07	0.050	8173971	0.821	0.050	8169454
Dissolved Sodium (Na)	mg/L	2.46	0.050	8173971	1.06	0.050	8169454
Dissolved Sulphur (S)	mg/L	34.8 (1)	3.0	8169454	46.6	3.0	8169454

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		NZ1044			NZ1045		
Sampling Date		2016/01/15			2016/01/15		
COC Number		08417567			08417567		
	UNITS	W71	RDL	QC Batch	W72	RDL	QC Batch
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0570	0.00050	8171525	0.152	0.0030	8172395
Total Antimony (Sb)	mg/L	0.000176	0.000020	8171525	0.000641	0.000050	8172395
Total Arsenic (As)	mg/L	0.00151	0.000020	8171525	0.000698	0.000020	8172395
Total Barium (Ba)	mg/L	0.110	0.000020	8171525	0.0731	0.00010	8172395
Total Beryllium (Be)	mg/L	<0.000010	0.000010	8171525	0.000017	0.000010	8172395
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8171525	<0.000020	0.000020	8172395
Total Boron (B)	mg/L	<0.010	0.010	8171525	<0.050	0.050	8172395
Total Cadmium (Cd)	mg/L	0.000407	0.0000050	8171525	0.00573	0.0000050	8172395
Total Chromium (Cr)	mg/L	0.00015	0.00010	8171525	<0.00050	0.00050	8172395
Total Cobalt (Co)	mg/L	0.000106	0.0000050	8171525	0.000302	0.000010	8172395
Total Copper (Cu)	mg/L	0.000749	0.000050	8171525	0.00322	0.00020	8172395
Total Iron (Fe)	mg/L	0.166	0.0010	8171525	0.497	0.0050	8172395
Total Lead (Pb)	mg/L	0.000987	0.0000050	8171525	0.00264	0.000050	8172395
Total Lithium (Li)	mg/L	0.00239	0.00050	8171525	0.00327	0.00050	8172395
Total Manganese (Mn)	mg/L	0.146	0.000050	8171525	0.0435	0.00010	8172395
Total Molybdenum (Mo)	mg/L	0.00333	0.000050	8171525	0.00533	0.000050	8172395
Total Nickel (Ni)	mg/L	0.00386	0.000020	8171525	0.0408	0.00010	8172395
Total Phosphorus (P)	mg/L	0.0304	0.0020	8171525			
Total Selenium (Se)	mg/L	0.00210	0.000040	8171525	0.00534	0.000040	8172395
Total Silicon (Si)	mg/L	4.97	0.050	8171525	4.56	0.10	8172395
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	8171525	0.0000120	0.0000050	8172395
Total Strontium (Sr)	mg/L	0.325	0.000050	8171525	0.332	0.000050	8172395
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	8171525	0.0000090	0.0000020	8172395
Total Tin (Sn)	mg/L	<0.00020	0.00020	8171525	<0.00020	0.00020	8172395
Total Titanium (Ti)	mg/L	0.00051	0.00050	8171525	<0.0050	0.0050	8172395
Total Uranium (U)	mg/L	0.00189	0.0000020	8171525	0.0148	0.0000050	8172395
Total Vanadium (V)	mg/L	<0.00020	0.00020	8171525	0.00075	0.00050	8172395
Total Zinc (Zn)	mg/L	0.0525	0.00010	8171525	0.851	0.0010	8172395
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	8171525	<0.00010	0.00010	8172395
Total Calcium (Ca)	mg/L	65.3	0.050	8169455	115	0.25	8169455
Total Magnesium (Mg)	mg/L	22.8	0.050	8169455	33.7	0.25	8169455
Total Potassium (K)	mg/L	0.973	0.050	8169455	0.85	0.25	8169455
Total Sodium (Na)	mg/L	2.22	0.050	8169455	1.01	0.25	8169455
Total Sulphur (S)	mg/L	19.9	3.0	8169455	46	15	8169455
RDL = Reportable Detection Limit							

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Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		NZ1046			NZ1047		
Sampling Date		2016/01/15			2016/01/15		
COC Number		08417567			08417567		
	UNITS	W73	RDL	QC Batch	W80	RDL	QC Batch
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00826	0.00050	8171977	0.00321	0.00050	8171977
Dissolved Antimony (Sb)	mg/L	0.000140	0.000020	8171977	0.000034	0.000020	8171977
Dissolved Arsenic (As)	mg/L	0.000217	0.000020	8171977	0.000116	0.000020	8171977
Dissolved Barium (Ba)	mg/L	0.0827	0.000020	8171977	0.0513	0.000020	8171977
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8171977	<0.000010	0.000010	8171977
Dissolved Bismuth (Bi)	mg/L	0.0000050	0.0000050	8171977	<0.0000050	0.0000050	8171977
Dissolved Boron (B)	mg/L	<0.010	0.010	8171977	<0.010	0.010	8171977
Dissolved Cadmium (Cd)	mg/L	0.0000240	0.0000050	8171977	0.0000340	0.0000050	8171977
Dissolved Chromium (Cr)	mg/L	0.00035	0.00010	8171977	0.00012	0.00010	8171977
Dissolved Cobalt (Co)	mg/L	0.0000160	0.0000050	8171977	0.0000170	0.0000050	8171977
Dissolved Copper (Cu)	mg/L	0.00179 (1)	0.000050	8175252	0.000406	0.000050	8171977
Dissolved Iron (Fe)	mg/L	0.0368	0.0010	8171977	0.0104	0.0010	8171977
Dissolved Lead (Pb)	mg/L	0.0113 (1)	0.0000050	8171977	0.000307	0.0000050	8171977
Dissolved Lithium (Li)	mg/L	0.00102	0.00050	8171977	<0.00050	0.00050	8171977
Dissolved Manganese (Mn)	mg/L	0.00215	0.000050	8171977	0.00895	0.000050	8171977
Dissolved Molybdenum (Mo)	mg/L	0.000528	0.000050	8171977	0.000369	0.000050	8171977
Dissolved Nickel (Ni)	mg/L	0.000638	0.000020	8171977	0.000097	0.000020	8171977
Dissolved Phosphorus (P)	mg/L	0.0066	0.0020	8171977	0.0075	0.0020	8171977
Dissolved Selenium (Se)	mg/L	0.00115	0.000040	8171977	0.000890	0.000040	8171977
Dissolved Silicon (Si)	mg/L	4.82	0.050	8171977	3.34	0.050	8171977
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8171977	<0.0000050	0.0000050	8171977
Dissolved Strontium (Sr)	mg/L	0.151	0.000050	8171977	0.0392	0.000050	8171977
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000020	8171977	<0.0000020	0.0000020	8171977
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8171977	<0.00020	0.00020	8171977
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8171977	<0.00050	0.00050	8171977
Dissolved Uranium (U)	mg/L	0.000823	0.0000020	8171977	0.000207	0.0000020	8171977
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8171977	0.00023	0.00020	8171977
Dissolved Zinc (Zn)	mg/L	0.00600 (1)	0.00010	8175252	0.00217	0.00010	8171977
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8171977	<0.00010	0.00010	8171977
Dissolved Calcium (Ca)	mg/L	36.8	0.050	8169454	23.8	0.050	8169454
Dissolved Magnesium (Mg)	mg/L	11.9	0.050	8169454	2.29	0.050	8169454
Dissolved Potassium (K)	mg/L	0.370	0.050	8169454	0.494	0.050	8169454
Dissolved Sodium (Na)	mg/L	1.42	0.050	8169454	1.24	0.050	8169454
Dissolved Sulphur (S)	mg/L	8.2	3.0	8169454	4.2	3.0	8169454

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		NZ1046			NZ1047		
Sampling Date		2016/01/15			2016/01/15		
COC Number		08417567			08417567		
	UNITS	W73	RDL	QC Batch	W80	RDL	QC Batch
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0131	0.00050	8171525	0.0912	0.0030	8172395
Total Antimony (Sb)	mg/L	0.000127	0.000020	8171525	<0.000050	0.000050	8172395
Total Arsenic (As)	mg/L	0.000208	0.000020	8171525	0.000190	0.000020	8172395
Total Barium (Ba)	mg/L	0.0873	0.000020	8171525	0.0591	0.00010	8172395
Total Beryllium (Be)	mg/L	<0.000010	0.000010	8171525	0.000010	0.000010	8172395
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8171525	<0.000020	0.000020	8172395
Total Boron (B)	mg/L	<0.010	0.010	8171525	<0.050	0.050	8172395
Total Cadmium (Cd)	mg/L	0.0000130	0.0000050	8171525	0.000120	0.0000050	8172395
Total Chromium (Cr)	mg/L	0.00033	0.00010	8171525	<0.00050	0.00050	8172395
Total Cobalt (Co)	mg/L	0.0000190	0.0000050	8171525	0.000170	0.000010	8172395
Total Copper (Cu)	mg/L	0.00101	0.000050	8171525	0.00142	0.00020	8172395
Total Iron (Fe)	mg/L	0.0499	0.0010	8171525	0.224	0.0050	8172395
Total Lead (Pb)	mg/L	0.00358	0.0000050	8171525	0.000381	0.000050	8172395
Total Lithium (Li)	mg/L	0.00128	0.00050	8171525	<0.00050	0.00050	8172395
Total Manganese (Mn)	mg/L	0.00575	0.000050	8171525	0.0457	0.00010	8172395
Total Molybdenum (Mo)	mg/L	0.000529	0.000050	8171525	0.000373	0.000050	8172395
Total Nickel (Ni)	mg/L	0.000621	0.000020	8171525	0.00039	0.00010	8172395
Total Phosphorus (P)	mg/L	0.0069	0.0020	8171525			
Total Selenium (Se)	mg/L	0.00110	0.000040	8171525	0.000837	0.000040	8172395
Total Silicon (Si)	mg/L	4.69	0.050	8171525	3.44	0.10	8172395
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	8171525	<0.0000050	0.0000050	8172395
Total Strontium (Sr)	mg/L	0.149	0.000050	8171525	0.0408	0.000050	8172395
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	8171525	<0.0000020	0.0000020	8172395
Total Tin (Sn)	mg/L	<0.00020	0.00020	8171525	<0.00020	0.00020	8172395
Total Titanium (Ti)	mg/L	<0.00050	0.00050	8171525	0.0051	0.0050	8172395
Total Uranium (U)	mg/L	0.000714	0.0000020	8171525	0.000217	0.0000050	8172395
Total Vanadium (V)	mg/L	<0.00020	0.00020	8171525	0.00057	0.00050	8172395
Total Zinc (Zn)	mg/L	0.00209	0.00010	8171525	0.0064	0.0010	8172395
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	8171525	<0.00010	0.00010	8172395
Total Calcium (Ca)	mg/L	38.7	0.050	8169455	24.6	0.25	8169455
Total Magnesium (Mg)	mg/L	11.6	0.050	8169455	2.35	0.25	8169455
Total Potassium (K)	mg/L	0.364	0.050	8169455	0.52	0.25	8169455
Total Sodium (Na)	mg/L	1.35	0.050	8169455	1.25	0.25	8169455
Total Sulphur (S)	mg/L	8.2	3.0	8169455	<15	15	8169455
RDL = Reportable Detection Limit							

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Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.3°C

Sample NZ1044, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample NZ1044, Na, K, Ca, Mg, S by CRC ICPMS (diss.): Test repeated.
Sample NZ1046, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Maxxam Job #: B603927
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QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8169700	Total Ammonia (N)	2016/01/19	NC	80 - 120	108	80 - 120	<0.0050	mg/L	2.3	20
8169706	Fluoride (F)	2016/01/19	114	80 - 120	106	80 - 120	<0.010	mg/L	NC	20
8169717	Dissolved Chloride (Cl)	2016/01/19			98	80 - 120	<0.50	mg/L		
8169721	Dissolved Chloride (Cl)	2016/01/19	104	80 - 120	99	80 - 120	<0.50	mg/L	7.5	20
8169724	Dissolved Sulphate (SO4)	2016/01/19	NC	80 - 120	96	80 - 120	<0.50	mg/L	15	20
8169768	Alkalinity (PP as CaCO3)	2016/01/19					<0.50	mg/L		
8169768	Alkalinity (Total as CaCO3)	2016/01/19			98	80 - 120	<0.50	mg/L		
8169768	Bicarbonate (HCO3)	2016/01/19					<0.50	mg/L		
8169768	Carbonate (CO3)	2016/01/19					<0.50	mg/L		
8169768	Hydroxide (OH)	2016/01/19					<0.50	mg/L		
8169770	pH	2016/01/19			101	97 - 103			0.35	N/A
8169771	Conductivity	2016/01/19			99	80 - 120	<1.0	uS/cm		
8169853	Nitrate plus Nitrite (N)	2016/01/19	NC	80 - 120	100	80 - 120	<0.0020	mg/L	NC	25
8169854	Nitrite (N)	2016/01/19	NC	80 - 120	93	80 - 120	<0.0020	mg/L	NC	25
8170311	Total Dissolved Solids	2016/01/21	102	80 - 120	108	80 - 120	<10	mg/L	2.1	20
8170531	Dissolved Sulphate (SO4)	2016/01/20			98	80 - 120	0.51, RDL=0.50	mg/L		
8171337	Total Suspended Solids	2016/01/22	101	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
8171525	Total Aluminum (Al)	2016/01/21	NC	80 - 120	96	80 - 120	<0.00050	mg/L	6.4	20
8171525	Total Antimony (Sb)	2016/01/21	99	80 - 120	96	80 - 120	<0.000020	mg/L	4.7	20
8171525	Total Arsenic (As)	2016/01/21	97	80 - 120	102	80 - 120	<0.000020	mg/L	4.1	20
8171525	Total Barium (Ba)	2016/01/21	NC	80 - 120	96	80 - 120	<0.000020	mg/L	2.5	20
8171525	Total Beryllium (Be)	2016/01/21	103	80 - 120	98	80 - 120	<0.000010	mg/L	NC	20
8171525	Total Bismuth (Bi)	2016/01/21	92	80 - 120	94	80 - 120	<0.0000050	mg/L	NC	20
8171525	Total Boron (B)	2016/01/21	100	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
8171525	Total Cadmium (Cd)	2016/01/21	92	80 - 120	94	80 - 120	<0.0000050	mg/L	1.2	20
8171525	Total Chromium (Cr)	2016/01/21	96	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
8171525	Total Cobalt (Co)	2016/01/21	92	80 - 120	101	80 - 120	<0.0000050	mg/L	6.8	20
8171525	Total Copper (Cu)	2016/01/21	96	80 - 120	105	80 - 120	<0.000050	mg/L	2.9	20
8171525	Total Iron (Fe)	2016/01/21	NC	80 - 120	98	80 - 120	<0.0010	mg/L	0.37	20
8171525	Total Lead (Pb)	2016/01/21	107	80 - 120	94	80 - 120	<0.0000050	mg/L	11	20
8171525	Total Lithium (Li)	2016/01/21	99	80 - 120	93	80 - 120	0.00053, RDL=0.00050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8171525	Total Manganese (Mn)	2016/01/21	NC	80 - 120	101	80 - 120	<0.000050	mg/L	0.023	20
8171525	Total Molybdenum (Mo)	2016/01/21	NC	80 - 120	92	80 - 120	<0.000050	mg/L	0	20
8171525	Total Nickel (Ni)	2016/01/21	90	80 - 120	102	80 - 120	<0.000020	mg/L	0.47	20
8171525	Total Phosphorus (P)	2016/01/21					<0.0020	mg/L	3.8	20
8171525	Total Selenium (Se)	2016/01/21	95	80 - 120	90	80 - 120	<0.000040	mg/L	1.8	20
8171525	Total Silicon (Si)	2016/01/21					<0.050	mg/L	2.2	20
8171525	Total Silver (Ag)	2016/01/21	98	80 - 120	87	80 - 120	<0.0000050	mg/L	NC	20
8171525	Total Strontium (Sr)	2016/01/21	NC	80 - 120	100	80 - 120	<0.000050	mg/L	3.9	20
8171525	Total Thallium (Tl)	2016/01/21	90	80 - 120	98	80 - 120	<0.0000020	mg/L	NC	20
8171525	Total Tin (Sn)	2016/01/21	100	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20
8171525	Total Titanium (Ti)	2016/01/21	88	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8171525	Total Uranium (U)	2016/01/21	90	80 - 120	92	80 - 120	<0.0000020	mg/L	1.1	20
8171525	Total Vanadium (V)	2016/01/21	99	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20
8171525	Total Zinc (Zn)	2016/01/21	NC	80 - 120	106	80 - 120	<0.00010	mg/L	0.70	20
8171525	Total Zirconium (Zr)	2016/01/21					<0.00010	mg/L	NC	20
8171977	Dissolved Aluminum (Al)	2016/01/25	105	80 - 120	109	80 - 120	<0.00050	mg/L	NC	20
8171977	Dissolved Antimony (Sb)	2016/01/25	107	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8171977	Dissolved Arsenic (As)	2016/01/25	102	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8171977	Dissolved Barium (Ba)	2016/01/25	100	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8171977	Dissolved Beryllium (Be)	2016/01/25	105	80 - 120	101	80 - 120	<0.000010	mg/L	NC	20
8171977	Dissolved Bismuth (Bi)	2016/01/25	102	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8171977	Dissolved Boron (B)	2016/01/25	107	80 - 120	104	80 - 120	<0.010	mg/L	NC	20
8171977	Dissolved Cadmium (Cd)	2016/01/25	102	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8171977	Dissolved Chromium (Cr)	2016/01/25	103	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20
8171977	Dissolved Cobalt (Co)	2016/01/25	106	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20
8171977	Dissolved Copper (Cu)	2016/01/25	105	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8171977	Dissolved Iron (Fe)	2016/01/25	108	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20
8171977	Dissolved Lead (Pb)	2016/01/25	105	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8171977	Dissolved Lithium (Li)	2016/01/25	107	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
8171977	Dissolved Manganese (Mn)	2016/01/25	105	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8171977	Dissolved Molybdenum (Mo)	2016/01/25	103	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8171977	Dissolved Nickel (Ni)	2016/01/25	106	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20

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Maxxam Job #: B603927
Report Date: 2016/01/26

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8171977	Dissolved Phosphorus (P)	2016/01/25					<0.0020	mg/L	NC	20
8171977	Dissolved Selenium (Se)	2016/01/25	105	80 - 120	98	80 - 120	<0.000040	mg/L	NC	20
8171977	Dissolved Silicon (Si)	2016/01/25					<0.050	mg/L	NC	20
8171977	Dissolved Silver (Ag)	2016/01/25	101	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8171977	Dissolved Strontium (Sr)	2016/01/25	97	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8171977	Dissolved Thallium (Tl)	2016/01/25	104	80 - 120	105	80 - 120	<0.0000020	mg/L	NC	20
8171977	Dissolved Tin (Sn)	2016/01/25	104	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8171977	Dissolved Titanium (Ti)	2016/01/25	98	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
8171977	Dissolved Uranium (U)	2016/01/25	113	80 - 120	109	80 - 120	<0.0000020	mg/L	NC	20
8171977	Dissolved Vanadium (V)	2016/01/25	104	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8171977	Dissolved Zinc (Zn)	2016/01/25	114	80 - 120	109	80 - 120	<0.00010	mg/L	NC	20
8171977	Dissolved Zirconium (Zr)	2016/01/25					<0.00010	mg/L	NC	20
8172395	Total Aluminum (Al)	2016/01/22	104	80 - 120	100	80 - 120	<0.0030	mg/L	4.6	20
8172395	Total Antimony (Sb)	2016/01/22	106	80 - 120	106	80 - 120	<0.000050	mg/L	NC	20
8172395	Total Arsenic (As)	2016/01/22	106	80 - 120	98	80 - 120	<0.000020	mg/L	0.58	20
8172395	Total Barium (Ba)	2016/01/22	NC	80 - 120	107	80 - 120	<0.00010	mg/L	0.073	20
8172395	Total Beryllium (Be)	2016/01/22	101	80 - 120	96	80 - 120	<0.000010	mg/L	NC	20
8172395	Total Bismuth (Bi)	2016/01/22	97	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8172395	Total Boron (B)	2016/01/22	NC	80 - 120	98	80 - 120	<0.050	mg/L	2.1	20
8172395	Total Cadmium (Cd)	2016/01/22	100	80 - 120	100	80 - 120	<0.0000050	mg/L	15	20
8172395	Total Chromium (Cr)	2016/01/22	105	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8172395	Total Cobalt (Co)	2016/01/22	102	80 - 120	102	80 - 120	<0.000010	mg/L	4.3	20
8172395	Total Copper (Cu)	2016/01/22	99	80 - 120	105	80 - 120	<0.00020	mg/L	NC	20
8172395	Total Iron (Fe)	2016/01/22	NC	80 - 120	106	80 - 120	<0.0050	mg/L	0.67	20
8172395	Total Lead (Pb)	2016/01/22	104	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8172395	Total Lithium (Li)	2016/01/22	98	80 - 120	114	80 - 120	<0.00050	mg/L	NC	20
8172395	Total Manganese (Mn)	2016/01/22	NC	80 - 120	104	80 - 120	<0.00010	mg/L	0.77	20
8172395	Total Molybdenum (Mo)	2016/01/22	NC	80 - 120	95	80 - 120	<0.000050	mg/L	1.4	20
8172395	Total Nickel (Ni)	2016/01/22	100	80 - 120	101	80 - 120	<0.00010	mg/L	4.1	20
8172395	Total Selenium (Se)	2016/01/22	94	80 - 120	94	80 - 120	<0.000040	mg/L	3.4	20
8172395	Total Silicon (Si)	2016/01/22					<0.10	mg/L	0.87	20
8172395	Total Silver (Ag)	2016/01/22	99	80 - 120	85	80 - 120	<0.0000050	mg/L	NC	20

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Maxxam Job #: B603927
Report Date: 2016/01/26

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8172395	Total Strontium (Sr)	2016/01/22	NC	80 - 120	96	80 - 120	<0.000050	mg/L	2.6	20
8172395	Total Thallium (Tl)	2016/01/22	97	80 - 120	96	80 - 120	<0.0000020	mg/L	NC	20
8172395	Total Tin (Sn)	2016/01/22	110	80 - 120	104	80 - 120	<0.00020	mg/L	NC	20
8172395	Total Titanium (Ti)	2016/01/22	106	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20
8172395	Total Uranium (U)	2016/01/22	108	80 - 120	104	80 - 120	<0.0000050	mg/L	1.5	20
8172395	Total Vanadium (V)	2016/01/22	107	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8172395	Total Zinc (Zn)	2016/01/22	95	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20
8172395	Total Zirconium (Zr)	2016/01/22					<0.00010	mg/L	NC	20
8175252	Dissolved Copper (Cu)	2016/01/26	95	80 - 120	101	80 - 120	<0.000050	mg/L	1.5	20
8175252	Dissolved Nickel (Ni)	2016/01/26	96	80 - 120	100	80 - 120	<0.000020	mg/L	0.041	20
8175252	Dissolved Zinc (Zn)	2016/01/26	NC	80 - 120	105	80 - 120	<0.00010	mg/L	0.076	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

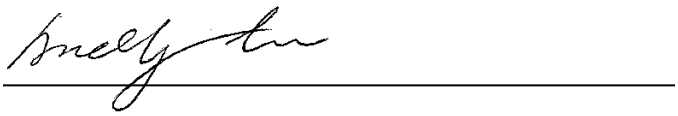
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B603927
Report Date: 2016/01/26

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE
Sampler Initials: PV

VALIDATION SIGNATURE PAGE

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



Andy Lu, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN OF CUSTODY RECORD

08417567

BBY FCD-00077/05

Page 1 of 1

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

Invoice Information	Report Information (if differs from invoice)	Project Information	Turnaround Time (TAT) Required
Company Name: Yukon Zinc Corp	Company Name: Yukon Zinc Corp	Quotation #:	[X] Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name: Mary Mroska	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 W. Georgia Vancouver PC: V6E 2Y3	Address: PC:	Project #:	Rush TAT (Surcharges will be applied)
Phone: 604-684-5474	Phone: 778-772-6267	Site Location: Wolverine mine	[ ] Same Day [ ] 2 Days [ ] 1 Day [ ] 3 Days
Email: Alex.wu@yukonzinc.com	Email: YZC Group	Site #:	Date Required:
		Sampled By: Preston Vowk	Rush Confirmation #:

Regulatory Criteria	Special Instructions
[ ] BC CSR Soil [ ] BC CSR Water	[ ] Return Cooler
[ ] CCME (Specify) [ ] Other (Specify)	[ ] Ship Sample Bottles (Please Specify)
[ ] Drinking Water [ ] BC Water Quality	

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested: VOC/VPH; MTBE; TEH; EPH/LEPH; PAH; BTEX/F1; CCME-BHC; Dissolved Metals (Filtered? Preserved?); Dissolved Mercury (Filtered? Preserved?); Total Metals (Field Preserved?); Total Mercury (Field Preserved?); Chloride; TDS; Sulphate; BOD; COD; pH; Alkalinity; Conductivity; Ammonia; Nitrate; Nitrite; # OF CONTAINERS SUBMITTED; HOLD - DO NOT ANALYZE

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix
1	W71	N21044	2016/01/15		H_2O
2	W72	N21045	"		H_2O
3	W73	N21046	"		H_2O
4	W80	N21047	"		H_2O
5					
6					
7					
8					
9					
10					

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
NA		21.1

COOLING MEDIA PRESENT: Y / N

COMMENTS:

B603927_COC

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
			YN Laurel Berthier	2016/01/18	10:50

MAXXAM JOB #: B603927

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Success Through Science®

Site Location: WOLVERINE MINE
Your C.O.C. #: 08418088

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/02/15
Report #: R2130062
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B608925
Received: 2016/02/05, 10:10

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	9	N/A	2016/02/09	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	9	2016/02/06	2016/02/06	BBY6SOP-00026	SM 22 2320 B m
Biochemical Oxygen Demand	1	2016/02/06	2016/02/06	BBY6SOP-00045	SM 22 5210 B m
Chloride by Automated Colourimetry	9	N/A	2016/02/09	BBY6SOP-00011	SM 22 4500-Cl- G m
Cyanide SAD (strong acid dissociable)	1	N/A	2016/02/09	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	1	N/A	2016/02/09	BBY6SOP-00004	SM 22 4500-CN O
Carbon (DOC) - field filtered/preserved (1)	2	N/A	2016/02/10	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - unfiltered/unpreserved (1)	1	N/A	2016/02/10	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	9	N/A	2016/02/06	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	9	N/A	2016/02/10	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	2	N/A	2016/02/10	BBY7SOP-00002	EPA 6020a R1 m
Hardness Total (calculated as CaCO3)	1	N/A	2016/02/11	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	8	N/A	2016/02/10	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	1	N/A	2016/02/11	BBY7SOP-00002	EPA 6020a R1 m
Bromide as Bromine (Br) by ICPMS	9	N/A	2016/02/11	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	8	N/A	2016/02/10	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2016/02/11	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	8	N/A	2016/02/09	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	1	N/A	2016/02/10	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Digested LL (total)	1	2016/02/10	2016/02/10	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2016/02/10	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2016/02/11	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (total)	2	N/A	2016/02/10	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Preserved)	7	N/A	2016/02/09	BBY6SOP-00009	SM 22 4500-NH3- G m
Ammonia-N (Preserved)	2	N/A	2016/02/11	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	9	N/A	2016/02/06	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	9	N/A	2016/02/06	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	9	N/A	2016/02/06	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	6	N/A	2016/02/10	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	3	N/A	2016/02/11	BBY7 WI-00004	BCMOE Reqs 08/14

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Site Location: WOLVERINE MINE
Your C.O.C. #: 08418088

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/02/15
Report #: R2130062
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B608925
Received: 2016/02/05, 10:10

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
pH Water (2)	9	N/A	2016/02/06	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	8	N/A	2016/02/06	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	1	N/A	2016/02/11	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	9	N/A	2016/02/09	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	2	2016/02/06	2016/02/09	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	3	2016/02/09	2016/02/10	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	4	2016/02/10	2016/02/11	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	2	2016/02/09	2016/02/09	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	6	2016/02/09	2016/02/09	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/02/11	2016/02/11	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	8	N/A	2016/02/09	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	1	N/A	2016/02/11	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	2	N/A	2016/02/09	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids	7	N/A	2016/02/10	BBY6SOP-00034	SM 22 2540 D
Turbidity	8	N/A	2016/02/06	BBY6SOP-00027	SM 22 2130 B m
Turbidity	1	N/A	2016/02/09	BBY6SOP-00027	SM 22 2130 B m

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) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OB7267		OB7268			OB7269		
Sampling Date		2016/02/01 14:00		2016/02/01 15:13			2016/02/03 14:00		
COC Number		08418088		08418088			08418088		
	UNITS	L1	QC Batch	W9	RDL	QC Batch	T1	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.070	8188417	0.100	0.010	8188417	0.220	0.010	8188417
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	71.8	8184517	176	0.50	8184517	1790	0.50	8184517
Nitrate (N)	mg/L	0.24	8184776	0.31	0.20	8184776	0.28	0.20	8184776
Demand Parameters									
Biochemical Oxygen Demand	mg/L				6.0	8185490	<6.0	6.0	8185490
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L				0.0050	8187137	0.233	0.0050	8187137
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00050	8187157	0.0166	0.00050	8187157
Dissolved Hardness (CaCO3)	mg/L	64.6	8184345	165	0.50	8184345	1670	0.50	8184345
Dissolved Organic Carbon (C)	mg/L	2.91	8188676	2.08	0.50	8188676	28.9 (1)	0.50	8185512
Acidity (pH 4.5)	mg/L	<0.50	8187037	<0.50	0.50	8187037	<0.50	0.50	8187037
Alkalinity (Total as CaCO3)	mg/L	63.5	8185471	130	0.50	8185471	12.6	0.50	8185471
Acidity (pH 8.3)	mg/L	<0.50	8187037	<0.50	0.50	8187037	4.72	0.50	8187037
Alkalinity (PP as CaCO3)	mg/L	<0.50	8185471	<0.50	0.50	8185471	<0.50	0.50	8185471
Bicarbonate (HCO3)	mg/L	77.5	8185471	159	0.50	8185471	15.3	0.50	8185471
Carbonate (CO3)	mg/L	<0.50	8185471	<0.50	0.50	8185471	<0.50	0.50	8185471
Hydroxide (OH)	mg/L	<0.50	8185471	<0.50	0.50	8185471	<0.50	0.50	8185471
Anions									
Orthophosphate (P)	mg/L	0.015	8186961	0.0047	0.0010	8186961	0.029	0.0010	8186961
Dissolved Sulphate (SO4)	mg/L	12.1	8187753	47.9	0.50	8187759	1650	5.0	8187759
Dissolved Chloride (Cl)	mg/L	0.70	8187751	0.97	0.50	8187755	540	5.0	8187755
Nutrients									
Total Ammonia (N)	mg/L	0.055	8189909	<0.0050	0.0050	8187457	1.2 (2)	0.050	8187457
Dissolved Phosphorus (P)	mg/L	0.0137	8187176	0.0047	0.0020	8187176	0.159	0.0020	8184602
Nitrate plus Nitrite (N)	mg/L	0.24 (3)	8185525	0.31 (3)	0.20	8185525	0.28 (4)	0.20	8185525
Nitrite (N)	mg/L	<0.20 (3)	8185526	<0.20 (3)	0.20	8185526	<0.20 (4)	0.20	8185526
Total Phosphorus (P)	mg/L	0.0199	8184587	0.0052	0.0020	8184587	0.327	0.0020	8184587
Physical Properties									
Conductivity	uS/cm	151	8185470	344	1.0	8185470	3650	1.0	8185470
pH	pH	7.90	8185469	8.26		8185469	6.65		8185469

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample preserved to extend hold time.
(2) Detection limits raised due to dilution to bring analyte within the calibrated range.
(3) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.
(4) RDL raised due to sample matrix interference.

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OB7267		OB7268			OB7269		
Sampling Date		2016/02/01 14:00		2016/02/01 15:13			2016/02/03 14:00		
COC Number		08418088		08418088			08418088		
	UNITS	L1	QC Batch	W9	RDL	QC Batch	T1	RDL	QC Batch
Physical Properties									
Total Suspended Solids	mg/L	<4.0	8185431	<4.0	4.0	8185431	4.8	4.0	8186850
Total Dissolved Solids	mg/L	76	8185433	164	10	8185433	3430	10	8187899
Turbidity	NTU	0.76 (1)	8185534	<0.10 (1)	0.10	8185534	7.48	0.10	8185534

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OB7270			OB7271			OB7272		
Sampling Date		2016/02/02 10:50			2016/02/02 13:25			2016/02/02 13:45		
COC Number		08418088			08418088			08418088		
	UNITS	MW05-5A	RDL	QC Batch	MW05-6A	RDL	QC Batch	MW05-6B	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	1.90	0.010	8188417	0.130	0.010	8188417	0.040	0.010	8188417
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.20	8184776	<0.20	0.20	8184776	0.31	0.20	8184776
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	235	0.50	8184345	72.8	0.50	8184345	89.3	0.50	8184345
Acidity (pH 4.5)	mg/L	<0.50	0.50	8187037	<0.50	0.50	8187037	<0.50	0.50	8187037
Alkalinity (Total as CaCO3)	mg/L	216	0.50	8185471	60.4	0.50	8185471	88.3	0.50	8185471
Acidity (pH 8.3)	mg/L	<0.50	0.50	8187037	<0.50	0.50	8187037	<0.50	0.50	8187037
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8185471	<0.50	0.50	8185471	<0.50	0.50	8185471
Bicarbonate (HCO3)	mg/L	263	0.50	8185471	73.7	0.50	8185471	108	0.50	8185471
Carbonate (CO3)	mg/L	<0.50	0.50	8185471	<0.50	0.50	8185471	<0.50	0.50	8185471
Hydroxide (OH)	mg/L	<0.50	0.50	8185471	<0.50	0.50	8185471	<0.50	0.50	8185471
Anions										
Orthophosphate (P)	mg/L	0.010 (1)	0.0010	8186961	0.78 (1)	0.010	8186961	0.013 (1)	0.0010	8190345
Dissolved Sulphate (SO4)	mg/L	32.0	0.50	8187759	12.9	0.50	8187753	9.76	0.50	8187759
Dissolved Chloride (Cl)	mg/L	0.84	0.50	8187755	0.67	0.50	8187751	0.88	0.50	8187755
Nutrients										
Total Ammonia (N)	mg/L	0.096	0.0050	8189909	0.029	0.0050	8187457	0.0089	0.0050	8187457
Dissolved Phosphorus (P)	mg/L	0.0183	0.0020	8184602	0.760	0.020	8184602	0.0146 (1)	0.0020	8190351
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.20	8185525	<0.20 (2)	0.20	8185525	0.31 (2)	0.20	8185525
Nitrite (N)	mg/L	<0.20 (2)	0.20	8185526	<0.20 (2)	0.20	8185526	<0.20 (2)	0.20	8185526
Total Phosphorus (P)	mg/L	0.0190	0.0020	8184587	0.906	0.020	8184587	0.0062 (3)	0.0020	8190382
Physical Properties										
Conductivity	uS/cm	461	1.0	8185470	150	1.0	8185470	189	1.0	8185470
pH	pH	8.17		8185469	7.78		8185469	7.99		8185469
Physical Properties										
Total Suspended Solids	mg/L	<4.0	4.0	8186850	<4.0	4.0	8186850	<4.0	4.0	8186850
Total Dissolved Solids	mg/L	240	10	8186890	94	10	8186890	92	10	8186890
Turbidity	NTU	8.86 (1)	0.10	8185534	6.89 (1)	0.10	8185534	0.16 (1)	0.10	8187293

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(3) Total Phosphorus is less than total dissolved and Orthophosphate. Reanalysis yields similar results.

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OB7273	OB7274		OB7275		
Sampling Date		2016/02/03 09:30	2016/02/03 13:01		2016/02/03 12:45		
COC Number		08418088	08418088		08418088		
	UNITS	MW05-8S	MW06-8M	QC Batch	MW06-8D	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	0.250	1.20	8188417	0.890	0.010	8188417
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	<0.20	8184776	<0.20	0.20	8184776
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	89.8	184	8184345	240	0.50	8184345
Acidity (pH 4.5)	mg/L	<0.50	<0.50	8187037	<0.50	0.50	8187037
Alkalinity (Total as CaCO3)	mg/L	68.2	165	8185471	229	0.50	8185471
Acidity (pH 8.3)	mg/L	4.71	<0.50	8187037	<0.50	0.50	8187037
Alkalinity (PP as CaCO3)	mg/L	<0.50	4.45	8185471	<0.50	0.50	8185471
Bicarbonate (HCO3)	mg/L	83.2	191	8185471	279	0.50	8185471
Carbonate (CO3)	mg/L	<0.50	5.34	8185471	<0.50	0.50	8185471
Hydroxide (OH)	mg/L	<0.50	<0.50	8185471	<0.50	0.50	8185471
Anions							
Orthophosphate (P)	mg/L	0.080	0.0058	8186961	0.0045	0.0010	8186961
Dissolved Sulphate (SO4)	mg/L	30.1	34.4	8187759	25.1	0.50	8187753
Dissolved Chloride (Cl)	mg/L	1.3	0.82	8187755	0.70	0.50	8187751
Nutrients							
Total Ammonia (N)	mg/L	0.055	0.083	8187457	0.083	0.0050	8187457
Dissolved Phosphorus (P)	mg/L	0.0968	0.0080	8184602	0.0032	0.0020	8184602
Nitrate plus Nitrite (N)	mg/L	<0.20 (1)	<0.20 (1)	8185525	<0.20 (1)	0.20	8185525
Nitrite (N)	mg/L	<0.20 (1)	<0.20 (1)	8185526	<0.20 (1)	0.20	8185526
Total Phosphorus (P)	mg/L	0.0935	0.0097	8184587	0.0039	0.0020	8184587
Physical Properties							
Conductivity	uS/cm	206	376	8185470	453	1.0	8185470
pH	pH	7.40	8.47	8185469	8.22		8185469
Physical Properties							
Total Suspended Solids	mg/L	<4.0	<4.0	8186850	<4.0	4.0	8186850
Total Dissolved Solids	mg/L	108	212	8187899	250	10	8187899
Turbidity	NTU	2.73	0.41	8185534	7.08	0.10	8185534

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) RDL raised due to sample matrix interference.

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OB7267		OB7268			OB7269		
Sampling Date		2016/02/01 14:00		2016/02/01 15:13			2016/02/03 14:00		
COC Number		08418088		08418088			08418088		
	UNITS	L1	QC Batch	W9	RDL	QC Batch	T1	RDL	QC Batch
ANIONS									
Bromide (Br)	mg/L	<0.010	8189012	<0.010	0.010	8189012	0.12	0.10	8189012
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	mg/L	0.00582 (1)	8187136	0.00337	0.00050	8187136	0.0476	0.00050	8188313
Dissolved Antimony (Sb)	mg/L	0.000044	8187136	0.000135	0.000020	8187136	0.0489	0.000020	8188313
Dissolved Arsenic (As)	mg/L	0.00126	8187136	0.000258	0.000020	8187136	0.00979	0.000020	8188313
Dissolved Barium (Ba)	mg/L	0.0595	8187136	0.132	0.000020	8187136	0.153	0.000020	8188313
Dissolved Beryllium (Be)	mg/L	<0.000010	8187136	<0.000010	0.000010	8187136	<0.000010	0.000010	8188313
Dissolved Bismuth (Bi)	mg/L	0.0000100	8187136	<0.0000050	0.0000050	8187136	<0.0000050	0.0000050	8188313
Dissolved Boron (B)	mg/L	<0.010	8187136	<0.010	0.010	8187136	0.021	0.010	8188313
Dissolved Cadmium (Cd)	mg/L	0.0000190	8187136	0.00116	0.0000050	8187136	0.0105	0.0000050	8188313
Dissolved Chromium (Cr)	mg/L	<0.00010	8187136	<0.00010	0.00010	8187136	0.00028	0.00010	8188313
Dissolved Cobalt (Co)	mg/L	0.0000290	8189185	0.0000070	0.0000050	8187136	0.00179	0.0000050	8188313
Dissolved Copper (Cu)	mg/L	0.000284	8189185	0.000483	0.000050	8187136	0.550	0.000050	8188313
Dissolved Iron (Fe)	mg/L	0.122	8187136	0.0011	0.0010	8187136	0.194	0.0010	8188313
Dissolved Lead (Pb)	mg/L	0.0000180	8187136	<0.0000050	0.0000050	8187136	0.191	0.0000050	8188313
Dissolved Lithium (Li)	mg/L	0.00063	8187136	0.00142	0.00050	8187136	0.0153	0.00050	8188313
Dissolved Manganese (Mn)	mg/L	0.0783	8187136	<0.000050	0.000050	8187136	0.269	0.000050	8188313
Dissolved Molybdenum (Mo)	mg/L	0.00110	8187136	0.000998	0.000050	8187136	0.0855	0.000050	8188313
Dissolved Nickel (Ni)	mg/L	0.000385	8187136	0.00259	0.000020	8187136	0.00653	0.000020	8188313
Dissolved Phosphorus (P)	mg/L	0.0206	8189185	<0.0020	0.0020	8187136	0.120	0.0020	8188313
Dissolved Selenium (Se)	mg/L	0.000427	8187136	0.00416	0.000040	8187136	2.56	0.000040	8188313
Dissolved Silicon (Si)	mg/L	4.10	8187136	3.45	0.050	8187136	1.87	0.050	8188313
Dissolved Silver (Ag)	mg/L	<0.0000050	8187136	<0.0000050	0.0000050	8187136	0.00553	0.0000050	8188313
Dissolved Strontium (Sr)	mg/L	0.0494	8187136	0.149	0.000050	8187136	2.75	0.000050	8188313
Dissolved Thallium (Tl)	mg/L	<0.0000020	8187136	0.0000020	0.0000020	8187136	0.00123	0.0000020	8188313
Dissolved Tin (Sn)	mg/L	<0.00020	8187136	<0.00020	0.00020	8187136	<0.00020	0.00020	8188313
Dissolved Titanium (Ti)	mg/L	<0.00050	8187136	<0.00050	0.00050	8187136	<0.00050	0.00050	8188313
Dissolved Uranium (U)	mg/L	0.000581	8187136	0.00293	0.0000020	8187136	0.000768	0.0000020	8188313
Dissolved Vanadium (V)	mg/L	<0.00020	8187136	<0.00020	0.00020	8187136	<0.00020	0.00020	8188313
Dissolved Zinc (Zn)	mg/L	0.00299	8187136	0.0957	0.00010	8187136	0.899	0.00010	8188313
Dissolved Zirconium (Zr)	mg/L	<0.00010	8187136	<0.00010	0.00010	8187136	<0.00010	0.00010	8188313
Dissolved Calcium (Ca)	mg/L	18.8	8184346	46.3	0.050	8184346	664	0.050	8184346
Dissolved Magnesium (Mg)	mg/L	4.30	8184346	12.1	0.050	8184346	2.10	0.050	8184346
Dissolved Potassium (K)	mg/L	0.959	8184346	1.20	0.050	8184346	55.4	0.050	8184346
Dissolved Sodium (Na)	mg/L	1.20	8184346	1.48	0.050	8184346	202	0.050	8184346

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OB7267		OB7268			OB7269		
Sampling Date		2016/02/01 14:00		2016/02/01 15:13			2016/02/03 14:00		
COC Number		08418088		08418088			08418088		
	UNITS	L1	QC Batch	W9	RDL	QC Batch	T1	RDL	QC Batch
Dissolved Sulphur (S)	mg/L	4.3	8184346	18.0	3.0	8184346	950	3.0	8184346
Total Metals by ICPMS									
Total Aluminum (Al)	mg/L	0.00453	8188366	0.00312	0.00050	8188366	0.105	0.030	8187925
Total Antimony (Sb)	mg/L	0.000046	8188366	0.000135	0.000020	8188366	0.0631	0.00050	8187925
Total Arsenic (As)	mg/L	0.00143	8188366	0.000282	0.000020	8188366	0.0133	0.00020	8187925
Total Barium (Ba)	mg/L	0.0640	8188366	0.140	0.000020	8188366	0.169	0.0010	8187925
Total Beryllium (Be)	mg/L	<0.000010	8188366	<0.000010	0.000010	8188366	<0.00010	0.00010	8187925
Total Bismuth (Bi)	mg/L	<0.0000050	8188366	<0.0000050	0.0000050	8188366	<0.00020	0.00020	8187925
Total Boron (B)	mg/L	<0.010	8188366	<0.010	0.010	8188366	<0.50	0.50	8187925
Total Cadmium (Cd)	mg/L	0.0000220	8188366	0.00126	0.0000050	8188366	0.0122	0.000050	8187925
Total Chromium (Cr)	mg/L	<0.00010	8188366	<0.00010	0.00010	8188366	<0.0050	0.0050	8187925
Total Cobalt (Co)	mg/L	0.0000270	8188366	0.0000070	0.0000050	8188366	0.00216	0.00010	8187925
Total Copper (Cu)	mg/L	0.000274	8188366	0.000418	0.000050	8188366	0.798	0.0020	8187925
Total Iron (Fe)	mg/L	0.219	8188366	0.0086	0.0010	8188366	0.220	0.050	8187925
Total Lead (Pb)	mg/L	0.0000060	8188366	0.0000080	0.0000050	8188366	0.225	0.00050	8187925
Total Lithium (Li)	mg/L	<0.00050	8188366	0.00059	0.00050	8188366	0.0153	0.0050	8187925
Total Manganese (Mn)	mg/L	0.0855	8188366	0.000274	0.000050	8188366	0.306	0.0010	8187925
Total Molybdenum (Mo)	mg/L	0.00110	8188366	0.00109	0.000050	8188366	0.145	0.00050	8187925
Total Nickel (Ni)	mg/L	0.000444	8188366	0.00271	0.000020	8188366	0.0079	0.0010	8187925
Total Phosphorus (P)	mg/L	0.0227	8188366	0.0070	0.0020	8188366			
Total Selenium (Se)	mg/L	0.000411	8188366	0.00408	0.000040	8188366	2.39	0.00040	8187925
Total Silicon (Si)	mg/L	4.21	8188366	3.53	0.050	8188366	1.9	1.0	8187925
Total Silver (Ag)	mg/L	<0.0000050	8188366	<0.0000050	0.0000050	8188366	0.00961	0.000050	8187925
Total Strontium (Sr)	mg/L	0.0551	8188366	0.170	0.000050	8188366	2.89	0.00050	8187925
Total Thallium (Tl)	mg/L	<0.0000020	8188366	<0.0000020	0.0000020	8188366	0.00117	0.000020	8187925
Total Tin (Sn)	mg/L	<0.00020	8188366	<0.00020	0.00020	8188366	<0.0020	0.0020	8187925
Total Titanium (Ti)	mg/L	<0.00050	8188366	<0.00050	0.00050	8188366	<0.050	0.050	8187925
Total Uranium (U)	mg/L	0.000622	8188366	0.00322	0.0000020	8188366	0.00104	0.000050	8187925
Total Vanadium (V)	mg/L	<0.00020	8188366	<0.00020	0.00020	8188366	<0.0050	0.0050	8187925
Total Zinc (Zn)	mg/L	0.00292	8188366	0.0973	0.00010	8188366	1.12	0.010	8187925
Total Zirconium (Zr)	mg/L	<0.00010	8188366	<0.00010	0.00010	8188366	<0.0010	0.0010	8187925
Total Calcium (Ca)	mg/L	21.5	8184658	50.2	0.050	8184658	711	2.5	8184658
Total Magnesium (Mg)	mg/L	4.40	8184658	12.3	0.050	8184658	2.5	2.5	8184658
Total Potassium (K)	mg/L	0.992	8184658	1.27	0.050	8184658	68.4	2.5	8184658
Total Sodium (Na)	mg/L	1.17	8184658	1.43	0.050	8184658	234	2.5	8184658
Total Sulphur (S)	mg/L	4.7	8184658	18.5	3.0	8184658	1050	150	8184658

RDL = Reportable Detection Limit

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OB7270	OB7271	OB7272	OB7273	OB7274		
Sampling Date		2016/02/02 10:50	2016/02/02 13:25	2016/02/02 13:45	2016/02/03 09:30	2016/02/03 13:01		
COC Number		08418088	08418088	08418088	08418088	08418088		
	UNITS	MW05-5A	MW05-6A	MW05-6B	MW05-8S	MW06-8M	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8189012
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00909	0.00276	0.00985	0.00379	0.00227	0.00050	8187136
Dissolved Antimony (Sb)	mg/L	0.00351	0.00121	0.000065	0.00253	0.000815	0.000020	8187136
Dissolved Arsenic (As)	mg/L	0.00591	0.00582	0.000105	0.000789	0.0117	0.000020	8187136
Dissolved Barium (Ba)	mg/L	0.0511	0.0450	0.180	0.0239	0.0623	0.000020	8187136
Dissolved Beryllium (Be)	mg/L	0.000026	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8187136
Dissolved Bismuth (Bi)	mg/L	0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8187136
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8187136
Dissolved Cadmium (Cd)	mg/L	0.000149	<0.0000050	0.0000190	0.000260	<0.0000050	0.0000050	8187136
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00097	<0.00010	<0.00010	0.00010	8187136
Dissolved Cobalt (Co)	mg/L	0.000901	0.000287	0.0000230	0.00170	0.000163	0.0000050	8187136
Dissolved Copper (Cu)	mg/L	0.000504	0.000086	0.000816	0.000482	0.000186	0.000050	8187136
Dissolved Iron (Fe)	mg/L	1.24	1.29	0.0306	0.961	0.263	0.0010	8187136
Dissolved Lead (Pb)	mg/L	0.000675	0.0000420	0.000282	0.0000880	0.000265	0.0000050	8187136
Dissolved Lithium (Li)	mg/L	0.00272	<0.00050	<0.00050	0.00101	0.00518	0.00050	8187136
Dissolved Manganese (Mn)	mg/L	0.188	0.134	0.00205	0.186	0.0261	0.000050	8187136
Dissolved Molybdenum (Mo)	mg/L	0.00680	0.00152	0.000282	0.00206	0.00535	0.000050	8187136
Dissolved Nickel (Ni)	mg/L	0.00259	0.00117	0.000248	0.0417	0.00218	0.000020	8187136
Dissolved Phosphorus (P)	mg/L	0.0203	0.991	0.0199	0.139	0.0082	0.0020	8187136
Dissolved Selenium (Se)	mg/L	0.000119	<0.000040	0.000651	0.000090	<0.000040	0.000040	8187136
Dissolved Silicon (Si)	mg/L	3.82	7.20	4.41	5.77	3.81	0.050	8187136
Dissolved Silver (Ag)	mg/L	0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8187136
Dissolved Strontium (Sr)	mg/L	0.129	0.0279	0.0501	0.0620	0.146	0.000050	8187136
Dissolved Thallium (Tl)	mg/L	0.0000080	<0.0000020	<0.0000020	0.0000070	0.0000020	0.0000020	8187136
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8187136
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8187136
Dissolved Uranium (U)	mg/L	0.0238	0.000332	0.000382	0.0000170	0.0196	0.0000020	8187136
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	0.00030	0.00030	<0.00020	0.00020	8187136
Dissolved Zinc (Zn)	mg/L	0.0924	0.00324	0.00364	1.22	0.00536	0.00010	8187136
Dissolved Zirconium (Zr)	mg/L	0.00059	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8187136
Dissolved Calcium (Ca)	mg/L	62.3	24.0	31.3	30.0	39.6	0.050	8184346
Dissolved Magnesium (Mg)	mg/L	19.3	3.11	2.73	3.61	20.6	0.050	8184346
Dissolved Potassium (K)	mg/L	1.67	1.16	0.805	1.10	2.11	0.050	8184346
Dissolved Sodium (Na)	mg/L	0.290	1.77	1.32	1.28	1.75	0.050	8184346
Dissolved Sulphur (S)	mg/L	12.0	5.9	3.2	11.2	13.2	3.0	8184346

RDL = Reportable Detection Limit

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OB7275		
Sampling Date		2016/02/03 12:45		
COC Number		08418088		
	UNITS	MW06-8D	RDL	QC Batch
ANIONS				
Bromide (Br)	mg/L	<0.010	0.010	8189012
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.00289	0.00050	8187136
Dissolved Antimony (Sb)	mg/L	0.000263	0.000020	8187136
Dissolved Arsenic (As)	mg/L	0.00462	0.000020	8187136
Dissolved Barium (Ba)	mg/L	0.0497	0.000020	8187136
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8187136
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8187136
Dissolved Boron (B)	mg/L	<0.010	0.010	8187136
Dissolved Cadmium (Cd)	mg/L	<0.0000050	0.0000050	8187136
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	8187136
Dissolved Cobalt (Co)	mg/L	0.0000500	0.0000050	8187136
Dissolved Copper (Cu)	mg/L	0.000100	0.000050	8187136
Dissolved Iron (Fe)	mg/L	0.579	0.0010	8187136
Dissolved Lead (Pb)	mg/L	0.0000750	0.0000050	8187136
Dissolved Lithium (Li)	mg/L	0.00300	0.00050	8187136
Dissolved Manganese (Mn)	mg/L	0.00994	0.000050	8187136
Dissolved Molybdenum (Mo)	mg/L	0.00144	0.000050	8187136
Dissolved Nickel (Ni)	mg/L	0.000359	0.000020	8187136
Dissolved Phosphorus (P)	mg/L	0.0052	0.0020	8187136
Dissolved Selenium (Se)	mg/L	<0.000040	0.000040	8187136
Dissolved Silicon (Si)	mg/L	4.95	0.050	8187136
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8187136
Dissolved Strontium (Sr)	mg/L	0.171	0.000050	8187136
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000020	8187136
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8187136
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8187136
Dissolved Uranium (U)	mg/L	0.0117	0.0000020	8187136
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8187136
Dissolved Zinc (Zn)	mg/L	0.00216	0.00010	8187136
Dissolved Zirconium (Zr)	mg/L	0.00059	0.00010	8187136
Dissolved Calcium (Ca)	mg/L	54.7	0.050	8184346
Dissolved Magnesium (Mg)	mg/L	25.1	0.050	8184346
Dissolved Potassium (K)	mg/L	1.81	0.050	8184346
Dissolved Sodium (Na)	mg/L	0.417	0.050	8184346
Dissolved Sulphur (S)	mg/L	9.7	3.0	8184346
RDL = Reportable Detection Limit				

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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.7°C
Package 2	2.0°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample OB7269-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample OB7269-03 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.
Sample OB7267, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Maxxam Job #: B608925
Report Date: 2016/02/15

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8184587	Total Phosphorus (P)	2016/02/09	NC	80 - 120	85	80 - 120	<0.0020	mg/L	2.1	20
8184602	Dissolved Phosphorus (P)	2016/02/09			92	80 - 120	<0.0020	mg/L	NC	20
8185431	Total Suspended Solids	2016/02/09	104	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
8185433	Total Dissolved Solids	2016/02/09	NC	80 - 120	106	80 - 120	<10	mg/L	5.5	20
8185469	pH	2016/02/06			102	97 - 103			2.1	N/A
8185470	Conductivity	2016/02/06			101	80 - 120	<1.0	uS/cm		
8185471	Alkalinity (PP as CaCO3)	2016/02/06					<0.50	mg/L	NC	20
8185471	Alkalinity (Total as CaCO3)	2016/02/06	NC	80 - 120	99	80 - 120	0.56, RDL=0.50	mg/L	0.86	20
8185471	Bicarbonate (HCO3)	2016/02/06					0.68, RDL=0.50	mg/L	0.86	20
8185471	Carbonate (CO3)	2016/02/06					<0.50	mg/L	NC	20
8185471	Hydroxide (OH)	2016/02/06					<0.50	mg/L	NC	20
8185490	Biochemical Oxygen Demand	2016/02/06			104	85 - 115	<6.0	mg/L	NC	20
8185512	Dissolved Organic Carbon (C)	2016/02/10	NC	80 - 120	111	80 - 120	<0.50	mg/L	4.7	20
8185525	Nitrate plus Nitrite (N)	2016/02/06	103	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
8185526	Nitrite (N)	2016/02/06	NC	80 - 120	97	80 - 120	<0.0020	mg/L	NC	25
8185534	Turbidity	2016/02/06			103	80 - 120	<0.10	NTU	6.0	20
8186850	Total Suspended Solids	2016/02/10	104	80 - 120	100	80 - 120	<4.0	mg/L	NC	20
8186890	Total Dissolved Solids	2016/02/10	104	80 - 120	96	80 - 120	<10	mg/L	12	20
8186961	Orthophosphate (P)	2016/02/06	98	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20
8187037	Acidity (pH 4.5)	2016/02/09					<0.50	mg/L	NC	20
8187037	Acidity (pH 8.3)	2016/02/09			97	80 - 120	<0.50	mg/L	20	20
8187136	Dissolved Aluminum (Al)	2016/02/09	101	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8187136	Dissolved Antimony (Sb)	2016/02/09	102	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
8187136	Dissolved Arsenic (As)	2016/02/09	99	80 - 120	96	80 - 120	<0.000020	mg/L	NC	20
8187136	Dissolved Barium (Ba)	2016/02/09	100	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8187136	Dissolved Beryllium (Be)	2016/02/09	109	80 - 120	111	80 - 120	<0.000010	mg/L	NC	20
8187136	Dissolved Bismuth (Bi)	2016/02/09	100	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8187136	Dissolved Boron (B)	2016/02/09	111	80 - 120	120	80 - 120	<0.010	mg/L	NC	20
8187136	Dissolved Cadmium (Cd)	2016/02/09	95	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
8187136	Dissolved Chromium (Cr)	2016/02/09	101	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8187136	Dissolved Cobalt (Co)	2016/02/09	100	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8187136	Dissolved Copper (Cu)	2016/02/09	103	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8187136	Dissolved Iron (Fe)	2016/02/09	95	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20
8187136	Dissolved Lead (Pb)	2016/02/09	101	80 - 120	104	80 - 120	0.0000080, RDL=0.0000050	mg/L	NC	20
8187136	Dissolved Lithium (Li)	2016/02/09	98	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8187136	Dissolved Manganese (Mn)	2016/02/09	110	80 - 120	97	80 - 120	<0.000050	mg/L	5.9	20
8187136	Dissolved Molybdenum (Mo)	2016/02/09	99	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20
8187136	Dissolved Nickel (Ni)	2016/02/09	102	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8187136	Dissolved Phosphorus (P)	2016/02/09					<0.0020	mg/L		
8187136	Dissolved Selenium (Se)	2016/02/09	98	80 - 120	95	80 - 120	<0.000040	mg/L	NC	20
8187136	Dissolved Silicon (Si)	2016/02/09					<0.050	mg/L	NC	20
8187136	Dissolved Silver (Ag)	2016/02/09	82	80 - 120	92	80 - 120	<0.0000050	mg/L	NC	20
8187136	Dissolved Strontium (Sr)	2016/02/09	93	80 - 120	93	80 - 120	<0.000050	mg/L	NC	20
8187136	Dissolved Thallium (Tl)	2016/02/09	98	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8187136	Dissolved Tin (Sn)	2016/02/09	102	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8187136	Dissolved Titanium (Ti)	2016/02/09	99	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
8187136	Dissolved Uranium (U)	2016/02/09	102	80 - 120	102	80 - 120	0.0000020, RDL=0.0000020	mg/L	NC	20
8187136	Dissolved Vanadium (V)	2016/02/09	107	80 - 120	108	80 - 120	<0.00020	mg/L	NC	20
8187136	Dissolved Zinc (Zn)	2016/02/09	NC	80 - 120	96	80 - 120	<0.00010	mg/L	5.1	20
8187136	Dissolved Zirconium (Zr)	2016/02/09					<0.00010	mg/L	NC	20
8187137	Strong Acid Dissoc. Cyanide (CN)	2016/02/09	104	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8187157	Weak Acid Dissoc. Cyanide (CN)	2016/02/09			109	80 - 120	0.00079, RDL=0.00050	mg/L		
8187176	Dissolved Phosphorus (P)	2016/02/09			85	80 - 120	<0.0020	mg/L		
8187293	Turbidity	2016/02/09			100	80 - 120	<0.10	NTU	0.60	20
8187457	Total Ammonia (N)	2016/02/09	82	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20
8187751	Dissolved Chloride (Cl)	2016/02/09	106	80 - 120	104	80 - 120	<0.50	mg/L	2.6	20
8187753	Dissolved Sulphate (SO4)	2016/02/09	NC	80 - 120	97	80 - 120	<0.50	mg/L	0.87	20
8187755	Dissolved Chloride (Cl)	2016/02/09	NC	80 - 120	96	80 - 120	0.55, RDL=0.50	mg/L	0.38	20
8187759	Dissolved Sulphate (SO4)	2016/02/09			87	80 - 120	<0.50	mg/L	2.6	20
8187899	Total Dissolved Solids	2016/02/11	102	80 - 120	94	80 - 120	<10	mg/L	13	20
8187925	Total Aluminum (Al)	2016/02/10	NC	80 - 120	119	80 - 120	<0.0030	mg/L	4.9	20
8187925	Total Antimony (Sb)	2016/02/10	104	80 - 120	108	80 - 120	<0.000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8187925	Total Arsenic (As)	2016/02/10	105	80 - 120	105	80 - 120	<0.000020	mg/L	2.5	20
8187925	Total Barium (Ba)	2016/02/10	NC	80 - 120	110	80 - 120	<0.00010	mg/L	0.14	20
8187925	Total Beryllium (Be)	2016/02/10	108	80 - 120	106	80 - 120	<0.000010	mg/L	NC	20
8187925	Total Bismuth (Bi)	2016/02/10	114	80 - 120	110	80 - 120	<0.000020	mg/L	NC	20
8187925	Total Boron (B)	2016/02/10	110	80 - 120	117	80 - 120	<0.050	mg/L	NC	20
8187925	Total Cadmium (Cd)	2016/02/10	102	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20
8187925	Total Chromium (Cr)	2016/02/10	107	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
8187925	Total Cobalt (Co)	2016/02/10	105	80 - 120	103	80 - 120	<0.000010	mg/L	1.4	20
8187925	Total Copper (Cu)	2016/02/10	104	80 - 120	106	80 - 120	<0.00020	mg/L	3.5	20
8187925	Total Iron (Fe)	2016/02/10	NC	80 - 120	105	80 - 120	<0.0050	mg/L	2.5	20
8187925	Total Lead (Pb)	2016/02/10	114	80 - 120	109	80 - 120	<0.000050	mg/L	NC	20
8187925	Total Lithium (Li)	2016/02/10	109	80 - 120	91	80 - 120	<0.00050	mg/L	NC	20
8187925	Total Manganese (Mn)	2016/02/10	NC	80 - 120	103	80 - 120	<0.00010	mg/L	1.4	20
8187925	Total Molybdenum (Mo)	2016/02/10	NC	80 - 120	98	80 - 120	<0.000050	mg/L	6.8	20
8187925	Total Nickel (Ni)	2016/02/10	102	80 - 120	102	80 - 120	<0.00010	mg/L	2.4	20
8187925	Total Selenium (Se)	2016/02/10	96	80 - 120	103	80 - 120	<0.000040	mg/L	NC	20
8187925	Total Silicon (Si)	2016/02/10					<0.10	mg/L	1.4	20
8187925	Total Silver (Ag)	2016/02/10	101	80 - 120	88	80 - 120	<0.0000050	mg/L	NC	20
8187925	Total Strontium (Sr)	2016/02/10	NC	80 - 120	97	80 - 120	<0.000050	mg/L	0.098	20
8187925	Total Thallium (Tl)	2016/02/10	105	80 - 120	95	80 - 120	<0.0000020	mg/L	NC	20
8187925	Total Tin (Sn)	2016/02/10	106	80 - 120	113	80 - 120	<0.00020	mg/L	NC	20
8187925	Total Titanium (Ti)	2016/02/10	NC	80 - 120	106	80 - 120	<0.0050	mg/L	NC	20
8187925	Total Uranium (U)	2016/02/10	115	80 - 120	110	80 - 120	<0.0000050	mg/L	2.8	20
8187925	Total Vanadium (V)	2016/02/10	104	80 - 120	114	80 - 120	<0.00050	mg/L	NC	20
8187925	Total Zinc (Zn)	2016/02/10	99	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20
8187925	Total Zirconium (Zr)	2016/02/10					<0.00010	mg/L	NC	20
8188313	Dissolved Aluminum (Al)	2016/02/10	95	80 - 120	105	80 - 120	<0.00050	mg/L	NC	20
8188313	Dissolved Antimony (Sb)	2016/02/10	97	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8188313	Dissolved Arsenic (As)	2016/02/10	95	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8188313	Dissolved Barium (Ba)	2016/02/10	92	80 - 120	105	80 - 120	<0.000020	mg/L	NC	20
8188313	Dissolved Beryllium (Be)	2016/02/10	91	80 - 120	100	80 - 120	<0.000010	mg/L	NC	20
8188313	Dissolved Bismuth (Bi)	2016/02/10	85	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8188313	Dissolved Boron (B)	2016/02/10	97	80 - 120	111	80 - 120	<0.010	mg/L	NC	20
8188313	Dissolved Cadmium (Cd)	2016/02/10	93	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8188313	Dissolved Chromium (Cr)	2016/02/10	88	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8188313	Dissolved Cobalt (Co)	2016/02/10	94	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8188313	Dissolved Copper (Cu)	2016/02/10	94	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8188313	Dissolved Iron (Fe)	2016/02/10	90	80 - 120	118	80 - 120	<0.0010	mg/L	NC	20
8188313	Dissolved Lead (Pb)	2016/02/10	87	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8188313	Dissolved Lithium (Li)	2016/02/10	95	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8188313	Dissolved Manganese (Mn)	2016/02/10	93	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8188313	Dissolved Molybdenum (Mo)	2016/02/10	88	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8188313	Dissolved Nickel (Ni)	2016/02/10	93	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8188313	Dissolved Phosphorus (P)	2016/02/10					<0.0020	mg/L		
8188313	Dissolved Selenium (Se)	2016/02/10	93	80 - 120	94	80 - 120	<0.000040	mg/L	NC	20
8188313	Dissolved Silicon (Si)	2016/02/10					<0.050	mg/L	NC	20
8188313	Dissolved Silver (Ag)	2016/02/10	72 (1)	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8188313	Dissolved Strontium (Sr)	2016/02/10	85	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8188313	Dissolved Thallium (Tl)	2016/02/10	89	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
8188313	Dissolved Tin (Sn)	2016/02/10	93	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8188313	Dissolved Titanium (Ti)	2016/02/10	86	80 - 120	119	80 - 120	<0.00050	mg/L	NC	20
8188313	Dissolved Uranium (U)	2016/02/10	97	80 - 120	105	80 - 120	<0.0000020	mg/L	NC	20
8188313	Dissolved Vanadium (V)	2016/02/10	96	80 - 120	105	80 - 120	<0.00020	mg/L	NC	20
8188313	Dissolved Zinc (Zn)	2016/02/10	103	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20
8188313	Dissolved Zirconium (Zr)	2016/02/10					<0.00010	mg/L	NC	20
8188366	Total Aluminum (Al)	2016/02/10	93	80 - 120	105	80 - 120	<0.00050	mg/L	NC	20
8188366	Total Antimony (Sb)	2016/02/10	91	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8188366	Total Arsenic (As)	2016/02/10	93	80 - 120	94	80 - 120	<0.000020	mg/L	NC	20
8188366	Total Barium (Ba)	2016/02/10	91	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8188366	Total Beryllium (Be)	2016/02/10	89	80 - 120	103	80 - 120	<0.000010	mg/L	NC	20
8188366	Total Bismuth (Bi)	2016/02/10	87	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8188366	Total Boron (B)	2016/02/10	96	80 - 120	118	80 - 120	<0.010	mg/L	NC	20
8188366	Total Cadmium (Cd)	2016/02/10	91	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8188366	Total Chromium (Cr)	2016/02/10	95	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20

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Maxxam Job #: B608925
Report Date: 2016/02/15

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8188366	Total Cobalt (Co)	2016/02/10	95	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8188366	Total Copper (Cu)	2016/02/10	97	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20
8188366	Total Iron (Fe)	2016/02/10	99	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20
8188366	Total Lead (Pb)	2016/02/10	90	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20
8188366	Total Lithium (Li)	2016/02/10	88	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
8188366	Total Manganese (Mn)	2016/02/10	94	80 - 120	95	80 - 120	<0.000050	mg/L	NC	20
8188366	Total Molybdenum (Mo)	2016/02/10	88	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20
8188366	Total Nickel (Ni)	2016/02/10	94	80 - 120	96	80 - 120	<0.000020	mg/L	NC	20
8188366	Total Phosphorus (P)	2016/02/10					<0.0020	mg/L		
8188366	Total Selenium (Se)	2016/02/10	87	80 - 120	93	80 - 120	<0.000040	mg/L	NC	20
8188366	Total Silicon (Si)	2016/02/10					<0.050	mg/L	NC	20
8188366	Total Silver (Ag)	2016/02/10	84	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8188366	Total Strontium (Sr)	2016/02/10	92	80 - 120	93	80 - 120	<0.000050	mg/L	NC	20
8188366	Total Thallium (Tl)	2016/02/10	92	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8188366	Total Tin (Sn)	2016/02/10	91	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20
8188366	Total Titanium (Ti)	2016/02/10	103	80 - 120	116	80 - 120	<0.00050	mg/L	NC	20
8188366	Total Uranium (U)	2016/02/10	95	80 - 120	108	80 - 120	<0.0000020	mg/L	NC	20
8188366	Total Vanadium (V)	2016/02/10	102	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20
8188366	Total Zinc (Zn)	2016/02/10	100	80 - 120	94	80 - 120	<0.00010	mg/L	NC	20
8188366	Total Zirconium (Zr)	2016/02/10					<0.00010	mg/L	NC	20
8188417	Fluoride (F)	2016/02/10	99	80 - 120	98	80 - 120	0.013, RDL=0.010	mg/L	0	20
8188676	Dissolved Organic Carbon (C)	2016/02/10	98	80 - 120	100	80 - 120	<0.50	mg/L	3.9	20
8189012	Bromide (Br)	2016/02/11	103	78 - 120	101	80 - 120	<0.010	mg/L	NC	20
8189185	Dissolved Cobalt (Co)	2016/02/11	100	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8189185	Dissolved Copper (Cu)	2016/02/11	100	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8189185	Dissolved Phosphorus (P)	2016/02/11					<0.0020	mg/L	NC	20
8189909	Total Ammonia (N)	2016/02/11	104	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
8190345	Orthophosphate (P)	2016/02/11	99	80 - 120	92	80 - 120	<0.0010	mg/L	11	20
8190351	Dissolved Phosphorus (P)	2016/02/11	96	80 - 120	95	80 - 120	<0.0020	mg/L	NC	20

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Maxxam Job #: B608925
Report Date: 2016/02/15

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8190382	Total Phosphorus (P)	2016/02/11			95	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

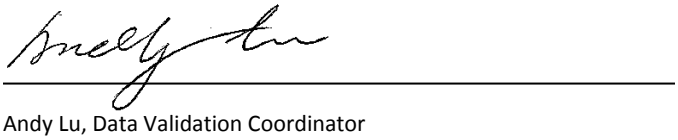
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Maxxam Job #: B608925
Report Date: 2016/02/15

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

VALIDATION SIGNATURE PAGE

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



Andy Lu, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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B608925_COC

CHAIN OF CUSTODY RE

08418087

aby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566 CO

BBY FCD-00077/05

Page 1 of 2

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name: Yukon Zinc Corporation	Quotation #:	☐ Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name: Alex Wu	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 West Georgia Street	Address: 705 - 1030 West Georgia Street	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC: V6E 2Y3	Vancouver PC: V6E 2Y3	Site Location: Wolverine Mine	☐ Same Day ☐ 2 Days
Phone: 604-684-5474	Phone: 604-684-5474	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC GROUP	Sampled By:	Date Required:

Regulatory Criteria

☐ BC CSR Soil ☐ BC CSR Water
☐ CCME (Specify) ☐ Other (Specify)
☐ Drinking Water ☐ BC Water Quality

Special Instructions

☐ Return Cooler
☐ Ship Sample Bottles (Please Specify)

Analysis Requested

Rush Confirmation #:

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	VOC/VPH	TEX	LEPH/HEPH	F2 - F4	Preserved?	Preserved?	Field Preserved?	Field Preserved?	Sulphate	COD	Alkalinity	Ammonia	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	LABORATORY USE ONLY / COMMENTS
	MTBE								BTEX/ F1	Filtered?	Filtered?	Field Preserved?		Fluoride	BOD	Conductivity	Nitrate			CUSTODY SEAL: Y / N (NA) COOLER TEMPERATURES: Present / Intact: NA 1.2 NA 3.1.2
	BTEX/VPH									Dissolved Metals	Dissolved Mercury	Total Metals	Total Mercury	Chloride	TSS	pH	Nitrite			COOLING MEDIA PRESENT: Y / N
1	L1		Feb 1/16	14:02	Water					X		X		X	X	X	X		7	
2	W9		Feb 1/16	15:13	Water					X		X		X	X	X	X		7	
3	W22				Water					X		X		X	X	X	X			
4	W31				Water					X		X		X	X	X	X			
5	W71				Water					X		X		X	X	X	X			
6	W72				Water					X		X		X	X	X	X			
7	W73				Water					X		X		X	X	X	X			
8	W80				Water					X		X		X	X	X	X			
9	W82				Water					X		X		X	X	X	X			
10	T1		Feb 3 16	14:00	Water					X		X		X	X	X	X		D	
11	MW05-1A				Water					X				X	X	X	X			
12	MW05-1B				Water					X				X	X	X	X			
13	MW05-2A				Water					X				X	X	X	X			
14	MW05-2B				Water					X				X	X	X	X			
15	MW05-3A				Water					X				X	X	X	X			
16	MW05-3B				Water					X				X	X	X	X			
17	MW05-4A				Water					X				X	X	X	X			

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
			Laurel LeAthien	2016/02/05	10:10	B608925

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CHAIN OF CUSTODY RECORD

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

COC 08418088

BBY FCD-00077/05

Invoice Information	Report Information (if differs from invoice)	Project Information (when	Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name: Yukon Zinc Corporation	Quotation #:	☐ Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name: Alex Wu	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 West Georgia Street	Address: 705 - 1030 West Georgia Street	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC: V6E 2Y3	Vancouver PC: V6E 2Y3	Site Location: Wolverine Mine	☐ Same Day ☐ 2 Days
Phone: 604-684-5474	Phone: 604-684-5474	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC GROUP	Sampled By:	Date Required:

Regulatory Criteria	Special Instructions	Rush Confirmation #:
☐ BC CSR Soil ☐ BC CSR Water ☐ CCME (Specify) ☐ Other (Specify) ☐ Drinking Water ☐ BC Water Quality	☐ Return Cooler ☐ Ship Sample Bottles (Please Specify)	

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	VOC/VPH	TEH	LEPH/HEPH	F2 - F4	Preserved?	Preserved?								# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COMMENTS
						MTBE			BTEX/ F1	Filtered?	Filtered?	Field Preserved?	Field Preserved?	Sulphate	COD	Alkalinity	Ammonia				
						BTEX/VPH	EPH	PAH	CCME-PHC	Dissolved Metals	Dissolved Mercury	Total Metals	Total Mercury	Chloride	TSS	pH	Nitrite				
18	MW05-4B				Water					X		X		X	X	X	X				
19	MW05-5A		Feb 2/16	10:50	Water					X		X		X	X	X	X			3	
20	MW05-5B				Water					X		X		X	X	X	X				
21	MW05-6A		Feb 2/16	13:25	Water					X		X		X	X	X	X			3	
22	MW05-6B		Feb 2/16	13:45	Water					X		X		X	X	X	X			3	
23	MW05-7B				Water					X		X		X	X	X	X				
24	MW05-8S		Feb	9:30	Water					X		X		X	X	X	X			3	
25	MW06-8M		Feb 3/16	13:01	Water					X		X		X	X	X	X			3	
26	MW06-8D		Feb 3/16	12:45	Water					X		X		X	X	X	X			3	
27	frozen MW06-9S		Feb 3/16	12:25	Water					X		X		X	X	X	X			2	
28	frozen MW06-9M				Water					X		X		X	X	X	X				
29	MW06-10S				Water					X		X		X	X	X	X				
30	MW06-10M				Water					X				X	X	X	X				
31	MW06-10D				Water					X				X	X	X	X				
32	MW06-11S				Water					X				X	X	X	X				
33	MW06-12S				Water					X				X	X	X	X				
34	MW06-13				Water					X				X	X	X	X				

LABORATORY USE ONLY
CUSTODY SEAL: Y
Present: Intact:
COOLER TEMPERATURES
COOLING MEDIA PRESENT: Y

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
			Laura Meltzer	2016/02/05	10:10	B608925

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Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/03/29
Report #: R2149252
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B621454
Received: 2016/03/21, 11:40

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	3	2016/03/23	2016/03/23	BBY6SOP-00026	SM 22 2320 B m
Conductance - water	3	N/A	2016/03/23	BBY6SOP-00026	SM 22 2510 B m
Hardness (calculated as CaCO3)	3	N/A	2016/03/28	BBY7SOP-00002	EPA 6020a R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	3	N/A	2016/03/28	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/03/25	BBY7SOP-00002	EPA 6020A R1 m
Filter and HNO3 Preserve for Metals	2	N/A	2016/03/24	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	1	N/A	2016/03/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	3	N/A	2016/03/23	BBY6SOP-00026	SM 22 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	2	2016/03/22	2016/03/23	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2016/03/23	2016/03/24	BBY6SOP-00033	SM 22 2540 C m
Total Phosphorus	3	N/A	2016/03/24	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	3	N/A	2016/03/24	BBY6SOP-00034	SM 22 2540 D

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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B621454
Report Date: 2016/03/29

YUKON ZINC CORPORATION
Sampler Initials: GH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OI1771	OI1772		OI1773		
Sampling Date		2016/03/15 09:00	2016/03/15 12:58		2016/03/16 10:00		
COC Number		08419387	08419387		08419387		
	UNITS	MW05-5A	MW06-10S	QC Batch	MW06-9S	RDL	QC Batch
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	254	136	8222638	120	0.50	8222638
Alkalinity (Total as CaCO3)	mg/L	220	120	8224215	99.3	0.50	8224215
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	8224215	<0.50	0.50	8224215
Bicarbonate (HCO3)	mg/L	268	146	8224215	121	0.50	8224215
Carbonate (CO3)	mg/L	<0.50	<0.50	8224215	<0.50	0.50	8224215
Hydroxide (OH)	mg/L	<0.50	<0.50	8224215	<0.50	0.50	8224215
Nutrients							
Total Phosphorus (P)	mg/L	0.0215	0.0129	8226031	0.263	0.0020	8226031
Physical Properties							
Conductivity	uS/cm	461	279	8224213	242	1.0	8224213
pH	pH	8.17	7.97	8224205	8.05		8224205
Physical Properties							
Total Suspended Solids	mg/L	<4.0	<4.0	8223408	<4.0	4.0	8223408
Total Dissolved Solids	mg/L	254	144	8222880	178	10	8223928

RDL = Reportable Detection Limit
N/A = Not Applicable

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Maxxam Job #: B621454
Report Date: 2016/03/29

YUKON ZINC CORPORATION
Sampler Initials: GH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OI1771	OI1772	OI1773		
Sampling Date		2016/03/15 09:00	2016/03/15 12:58	2016/03/16 10:00		
COC Number		08419387	08419387	08419387		
	UNITS	MW05-5A	MW06-10S	MW06-9S	RDL	QC Batch
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.00390	0.00238	0.00175	0.00050	8224347
Dissolved Antimony (Sb)	mg/L	0.00345	0.000389	0.000030	0.000020	8224347
Dissolved Arsenic (As)	mg/L	0.00545	0.00447	0.00651	0.000020	8224347
Dissolved Barium (Ba)	mg/L	0.0505	0.0277	0.0593	0.000020	8224347
Dissolved Beryllium (Be)	mg/L	0.000023	<0.000010	<0.000010	0.000010	8224347
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	8224347
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	0.010	8224347
Dissolved Cadmium (Cd)	mg/L	0.0000840	0.0000050	<0.0000050	0.0000050	8224347
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	8224347
Dissolved Cobalt (Co)	mg/L	0.000565	0.000117	0.0000670	0.0000050	8224347
Dissolved Copper (Cu)	mg/L	0.000315	0.000350	0.000085	0.000050	8224347
Dissolved Iron (Fe)	mg/L	1.19	0.249	0.626	0.0010	8224347
Dissolved Lead (Pb)	mg/L	0.000471	0.0000970	0.0000320	0.0000050	8224347
Dissolved Lithium (Li)	mg/L	0.00285	0.00138	0.00099	0.00050	8224347
Dissolved Manganese (Mn)	mg/L	0.142	0.115	0.111	0.000050	8224347
Dissolved Molybdenum (Mo)	mg/L	0.00658	0.00110	0.00429	0.000050	8224347
Dissolved Nickel (Ni)	mg/L	0.00225	0.000585	0.000136	0.000020	8224347
Dissolved Phosphorus (P)	mg/L	0.0186	0.0122	0.226	0.0020	8224347
Dissolved Selenium (Se)	mg/L	0.000087	<0.000040	<0.000040	0.000040	8224347
Dissolved Silicon (Si)	mg/L	3.88	3.66	4.56	0.050	8224347
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	8224347
Dissolved Strontium (Sr)	mg/L	0.130	0.182	0.147	0.000050	8224347
Dissolved Thallium (Tl)	mg/L	0.0000060	0.0000020	<0.0000020	0.0000020	8224347
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8224347
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	8224347
Dissolved Uranium (U)	mg/L	0.0256	0.00793	0.000487	0.0000020	8224347
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8224347
Dissolved Zinc (Zn)	mg/L	0.0666	0.00481	0.00056	0.00010	8224347
Dissolved Zirconium (Zr)	mg/L	0.00054	<0.00010	<0.00010	0.00010	8224347
Dissolved Calcium (Ca)	mg/L	67.3	47.6	40.0	0.050	8222632
Dissolved Magnesium (Mg)	mg/L	20.9	4.22	4.76	0.050	8222632
Dissolved Potassium (K)	mg/L	1.65	1.26	1.08	0.050	8222632
Dissolved Sodium (Na)	mg/L	0.280	1.39	1.01	0.050	8222632
Dissolved Sulphur (S)	mg/L	12.5	9.2	9.3	3.0	8222632
RDL = Reportable Detection Limit						

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Maxxam Job #: B621454
Report Date: 2016/03/29

YUKON ZINC CORPORATION
Sampler Initials: GH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.7°C

Results relate only to the items tested.

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Maxxam Job #: B621454
Report Date: 2016/03/29

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Sampler Initials: GH

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8222880	Total Dissolved Solids	2016/03/23	NC	80 - 120	90	80 - 120	16, RDL=10	mg/L	0	20
8223408	Total Suspended Solids	2016/03/24	102	80 - 120	102	80 - 120	<4.0	mg/L	NC	20
8223928	Total Dissolved Solids	2016/03/24	NC	80 - 120	116	80 - 120	14, RDL=10	mg/L	3.0	20
8224205	pH	2016/03/23			101	97 - 103			0.61	N/A
8224213	Conductivity	2016/03/23			99	80 - 120	<1.0	uS/cm	0.19	20
8224215	Alkalinity (PP as CaCO3)	2016/03/23					<0.50	mg/L	NC	20
8224215	Alkalinity (Total as CaCO3)	2016/03/23	109	80 - 120	101	80 - 120	0.51, RDL=0.50	mg/L	1.9	20
8224215	Bicarbonate (HCO3)	2016/03/23					0.62, RDL=0.50	mg/L	1.9	20
8224215	Carbonate (CO3)	2016/03/23					<0.50	mg/L	NC	20
8224215	Hydroxide (OH)	2016/03/23					<0.50	mg/L	NC	20
8224347	Dissolved Aluminum (Al)	2016/03/25	99	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
8224347	Dissolved Antimony (Sb)	2016/03/25	100	80 - 120	104	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Arsenic (As)	2016/03/25	101	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Barium (Ba)	2016/03/25	100	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Beryllium (Be)	2016/03/25	100	80 - 120	100	80 - 120	<0.000010	mg/L	NC	20
8224347	Dissolved Bismuth (Bi)	2016/03/25	97	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Boron (B)	2016/03/25	108	80 - 120	102	80 - 120	<0.010	mg/L	NC	20
8224347	Dissolved Cadmium (Cd)	2016/03/25	98	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Chromium (Cr)	2016/03/25	100	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8224347	Dissolved Cobalt (Co)	2016/03/25	101	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Copper (Cu)	2016/03/25	101	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Iron (Fe)	2016/03/25	98	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20
8224347	Dissolved Lead (Pb)	2016/03/25	98	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Lithium (Li)	2016/03/25	94	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8224347	Dissolved Manganese (Mn)	2016/03/25	99	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Molybdenum (Mo)	2016/03/25	96	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Nickel (Ni)	2016/03/25	99	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Phosphorus (P)	2016/03/25					<0.0020	mg/L		
8224347	Dissolved Selenium (Se)	2016/03/25	98	80 - 120	97	80 - 120	<0.000040	mg/L	NC	20
8224347	Dissolved Silicon (Si)	2016/03/25					<0.050	mg/L	NC	20
8224347	Dissolved Silver (Ag)	2016/03/25	96	80 - 120	89	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Strontium (Sr)	2016/03/25	98	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20

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Maxxam Job #: B621454
Report Date: 2016/03/29

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Sampler Initials: GH

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8224347	Dissolved Thallium (Tl)	2016/03/25	101	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20
8224347	Dissolved Tin (Sn)	2016/03/25	98	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8224347	Dissolved Titanium (Ti)	2016/03/25	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8224347	Dissolved Uranium (U)	2016/03/25	96	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8224347	Dissolved Vanadium (V)	2016/03/25	101	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8224347	Dissolved Zinc (Zn)	2016/03/25	106	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8224347	Dissolved Zirconium (Zr)	2016/03/25					<0.00010	mg/L	NC	20
8226031	Total Phosphorus (P)	2016/03/24	NC	80 - 120	98	80 - 120	<0.0020	mg/L	0.77	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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Maxxam Job #: B621454
Report Date: 2016/03/29

YUKON ZINC CORPORATION
Sampler Initials: GH

VALIDATION SIGNATURE PAGE

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



Rob Reinert, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY RECORD

COC # 08419387

BBY FCD-00077/05

Page ____ of ____

(TAT) Required

Invoice Information	Report Information (if differs from invoice)	Project Information (where
Company Name: Yukon Zinc Corporation	Company Name: Yukon Zinc Corporation	Quotation #:
Contact Name: Alex Wu	Contact Name: Alex Wu	P.O. #/ AFE#:
Address: 705-1030 West Georgia Street	Address: 705-1030 West Georgia Street	Project #:
Vancouver PC: V6E 2Y3	Vancouver PC: V6E 2Y3	Site Location:
Phone: 604-684-5474	Phone: 604-684-5474	Site #:
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By: Glen Hillsden

☐ Regular TAT 5 days (Most analyses)

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)

☐ Same Day ☐ 2 Days ☐ 1 Day ☐ 3 Days

Date Required:

Rush Confirmation #:

Regulatory Criteria

☐ BC CSR Soil ☐ BC CSR Water

☐ CCME (Specify) ☐ Other (Specify)

☐ Drinking Water ☐ BC Water Quality

Special Instructions

☐ Return Cooler

☐ Ship Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	BTEX/VPH	EPH	PAH	CCME-PHC	Dissolved Metals	Dissolved Mercury	Total Metals	Total Mercury	Chloride	TSS	pH	Nitrite	WAD and SAD Cyanide	Total Phosphate	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COMMENTS
1										X		X		X	X	X	X	X	X			
2	MW05-SA		16/03/15	9:00	WATER					X					X	X			X			
3	MW06-10S		16/03/15	12:58	WATER					Y					Y	Y			X			
4	MW06-9S		16/03/16	10:00	WATER					Y					Y	Y			Y			
5																						
6																						
7																						
8																						
9																						
10																						

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
NA		22.1
		11

COOLING MEDIA PRESENT Y / N

B621454_COC

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
	2016/03/17	8:30				B621454
	2016/03/17	8:32		2016/03/21	11:40	

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Success Through Science®

Site#: T1
Site Location: TAILINGS
Your C.O.C. #: 08419386

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/03/28
Report #: R2148971
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B621455
Received: 2016/03/21, 11:40

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	3	2016/03/23	2016/03/23	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	3	N/A	2016/03/23	BBY6SOP-00011	SM 22 4500-Cl- G m
Cyanide SAD (strong acid dissociable)	3	N/A	2016/03/23	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	3	N/A	2016/03/23	BBY6SOP-00004	SM 22 4500-CN O
Conductance - water	3	N/A	2016/03/23	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	3	N/A	2016/03/23	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	3	N/A	2016/03/28	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	3	N/A	2016/03/28	BBY7SOP-00002	EPA 6020a R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	3	N/A	2016/03/28	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/03/25	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Digested LL (total)	2	2016/03/24	2016/03/24	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2016/03/28	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (total)	1	N/A	2016/03/24	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Preserved)	3	N/A	2016/03/23	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	3	N/A	2016/03/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	3	N/A	2016/03/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	3	N/A	2016/03/24	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	3	N/A	2016/03/24	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	3	N/A	2016/03/23	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	3	N/A	2016/03/23	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	3	2016/03/23	2016/03/24	BBY6SOP-00033	SM 22 2540 C m
Total Phosphorus	3	N/A	2016/03/24	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	3	N/A	2016/03/24	BBY6SOP-00034	SM 22 2540 D

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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

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Site#: T1
Site Location: TAILINGS
Your C.O.C. #: 08419386

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/03/28
Report #: R2148971
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B621455
Received: 2016/03/21, 11:40

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B621455
Report Date: 2016/03/28

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OI1774		OI1775		OI1776		
Sampling Date		2016/03/17 17:45		2016/03/17 17:38		2016/03/17 17:30		
COC Number		08419386		08419386		08419386		
	UNITS	T1-1	RDL	T1-2	QC Batch	T1-3	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.210	0.010	0.240	8224266	0.270	0.010	8224266
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1650	0.50	1850	8222667	2360	0.50	8222667
Nitrate (N)	mg/L	<0.20	0.20	<0.20	8223420	<0.20	0.20	8223420
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.244	0.0050	0.280	8224306	0.374	0.0050	8224306
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.0152	0.00050	0.0302	8224311	0.0481	0.00050	8224311
Dissolved Hardness (CaCO3)	mg/L	1780	0.50	2050	8222638	2170	0.50	8222638
Alkalinity (Total as CaCO3)	mg/L	5.72	0.50	5.84	8224232	11.2	0.50	8224232
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	8224232	<0.50	0.50	8224232
Bicarbonate (HCO3)	mg/L	6.98	0.50	7.12	8224232	13.6	0.50	8224232
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	8224232	<0.50	0.50	8224232
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	8224232	<0.50	0.50	8224232
Anions								
Dissolved Sulphate (SO4)	mg/L	1780 (1)	5.0	1870 (1)	8224507	1870 (1)	5.0	8224507
Dissolved Chloride (Cl)	mg/L	480 (1)	5.0	720 (1)	8224505	1100 (1)	5.0	8224505
Nutrients								
Total Ammonia (N)	mg/L	0.73	0.0050	2.5 (1)	8224476	1.1 (1)	0.050	8224476
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.20	<0.20 (2)	8224619	<0.20 (2)	0.20	8224619
Nitrite (N)	mg/L	<0.20 (2)	0.20	<0.20 (2)	8224620	<0.20 (2)	0.20	8224620
Total Phosphorus (P)	mg/L	0.0254	0.0020	0.0209	8226031	0.0393	0.0020	8226031
Physical Properties								
Conductivity	uS/cm	3620	1.0	4040	8224231	4680	1.0	8224231
pH	pH	6.52		6.37	8224222	6.68		8224222
Physical Properties								
Total Suspended Solids	mg/L	<4.0	4.0	<4.0	8223855	5.3	4.0	8223855
Total Dissolved Solids	mg/L	3420	10	3610	8223928	4200	50	8224563

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B621455
Report Date: 2016/03/28

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OI1774	OI1775			OI1776		
Sampling Date		2016/03/17 17:45	2016/03/17 17:38			2016/03/17 17:30		
COC Number		08419386	08419386			08419386		
	UNITS	T1-1	T1-2	RDL	QC Batch	T1-3	RDL	QC Batch
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.0480	0.0548	0.00050	8224347	0.0476	0.00050	8224347
Dissolved Antimony (Sb)	mg/L	0.0568	0.0633	0.000020	8224347	0.0668	0.000020	8224347
Dissolved Arsenic (As)	mg/L	0.0112	0.0120	0.000020	8224347	0.00766	0.000020	8224347
Dissolved Barium (Ba)	mg/L	0.134	0.145	0.000020	8224347	0.126	0.000020	8224347
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	0.000010	8224347	<0.000010	0.000010	8224347
Dissolved Bismuth (Bi)	mg/L	0.0000130	0.0000220	0.0000050	8224347	0.0000160	0.0000050	8224347
Dissolved Boron (B)	mg/L	0.020	0.022	0.010	8224347	0.021	0.010	8224347
Dissolved Cadmium (Cd)	mg/L	0.0109	0.00798	0.0000050	8224347	0.00407	0.0000050	8224347
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00010	8224347	0.00014	0.00010	8224347
Dissolved Cobalt (Co)	mg/L	0.00195	0.00168	0.0000050	8224347	0.00109	0.0000050	8224347
Dissolved Copper (Cu)	mg/L	0.680	0.936	0.000050	8224347	1.07	0.000050	8224347
Dissolved Iron (Fe)	mg/L	0.258	0.426	0.0010	8224347	0.312	0.0010	8224347
Dissolved Lead (Pb)	mg/L	0.217	0.266	0.0000050	8224347	0.230	0.0000050	8224347
Dissolved Lithium (Li)	mg/L	0.0140	0.0170	0.00050	8224347	0.0179	0.00050	8224347
Dissolved Manganese (Mn)	mg/L	0.295	0.240	0.000050	8224347	0.0722	0.000050	8224347
Dissolved Molybdenum (Mo)	mg/L	0.136	0.177	0.000050	8224347	0.0986	0.000050	8224347
Dissolved Nickel (Ni)	mg/L	0.00700	0.00711	0.000020	8224347	0.00959	0.000020	8224347
Dissolved Phosphorus (P)	mg/L	0.141	0.166	0.0020	8224347	0.186	0.0020	8224347
Dissolved Selenium (Se)	mg/L	3.20	3.50	0.000040	8224347	4.18	0.000040	8224347
Dissolved Silicon (Si)	mg/L	1.91	1.88	0.050	8224347	1.61	0.050	8224347
Dissolved Silver (Ag)	mg/L	0.00383	0.00497	0.0000050	8224347	0.000582	0.0000050	8224347
Dissolved Strontium (Sr)	mg/L	2.96	3.21	0.000050	8224347	3.65	0.000050	8224347
Dissolved Thallium (Tl)	mg/L	0.00129	0.00133	0.0000020	8224347	0.000912	0.0000020	8224347
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	0.00020	8224347	<0.00020	0.00020	8224347
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	0.00050	8224347	<0.00050	0.00050	8224347
Dissolved Uranium (U)	mg/L	0.000666	0.000619	0.0000020	8224347	0.000289	0.0000020	8224347
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	0.00020	8224347	<0.00020	0.00020	8224347
Dissolved Zinc (Zn)	mg/L	0.963	0.822	0.00010	8224347	0.829	0.00010	8224347
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00010	8224347	<0.00010	0.00010	8224347
Dissolved Calcium (Ca)	mg/L	709	818	0.050	8222632	867	0.050	8222632
Dissolved Magnesium (Mg)	mg/L	2.23	2.00	0.050	8222632	1.35	0.050	8222632
Dissolved Potassium (K)	mg/L	58.8	64.2	0.050	8222632	72.0	0.050	8222632
Dissolved Sodium (Na)	mg/L	215	242	0.050	8222632	266	0.050	8222632
Dissolved Sulphur (S)	mg/L	1150	1600	3.0	8222632	1640	3.0	8222632
RDL = Reportable Detection Limit								

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Maxxam Job #: B621455
Report Date: 2016/03/28

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OI1774	OI1775			OI1776		
Sampling Date		2016/03/17 17:45	2016/03/17 17:38			2016/03/17 17:30		
COC Number		08419386	08419386			08419386		
	UNITS	T1-1	T1-2	RDL	QC Batch	T1-3	RDL	QC Batch
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.059	0.057	0.012	8225141	0.0578	0.00050	8224358
Total Antimony (Sb)	mg/L	0.0560	0.0589	0.00020	8225141	0.0620	0.000020	8224358
Total Arsenic (As)	mg/L	0.0107	0.0103	0.000080	8225141	0.00667	0.000020	8224358
Total Barium (Ba)	mg/L	0.144	0.148	0.00040	8225141	0.132	0.000020	8224358
Total Beryllium (Be)	mg/L	<0.000040	<0.000040	0.000040	8225141	<0.000010	0.000010	8224358
Total Bismuth (Bi)	mg/L	<0.000080	<0.000080	0.000080	8225141	0.0000120	0.0000050	8224358
Total Boron (B)	mg/L	<0.20	<0.20	0.20	8225141	0.025	0.010	8224358
Total Cadmium (Cd)	mg/L	0.0111	0.00797	0.000020	8225141	0.00411	0.0000050	8224358
Total Chromium (Cr)	mg/L	<0.0020	<0.0020	0.0020	8225141	0.00022	0.00010	8224358
Total Cobalt (Co)	mg/L	0.00191	0.00151	0.000040	8225141	0.00117	0.0000050	8224358
Total Copper (Cu)	mg/L	0.710	0.914	0.00080	8225141	1.03	0.000050	8224358
Total Iron (Fe)	mg/L	0.286	0.408	0.020	8225141	0.330	0.0010	8224358
Total Lead (Pb)	mg/L	0.206	0.245	0.00020	8225141	0.241	0.0000050	8224358
Total Lithium (Li)	mg/L	0.0191	0.0174	0.0020	8225141	0.0201	0.00050	8224358
Total Manganese (Mn)	mg/L	0.289	0.224	0.00040	8225141	0.0763	0.000050	8224358
Total Molybdenum (Mo)	mg/L	0.141	0.164	0.00020	8225141	0.0990	0.000050	8224358
Total Nickel (Ni)	mg/L	0.00734	0.00693	0.00040	8225141	0.00979	0.000020	8224358
Total Phosphorus (P)	mg/L	0.145	0.119	0.040	8225141	0.165	0.0020	8224358
Total Selenium (Se)	mg/L	2.40	2.90	0.00016	8225141	4.66	0.000040	8224358
Total Silicon (Si)	mg/L	1.83	1.73	0.40	8225141	1.62	0.050	8224358
Total Silver (Ag)	mg/L	0.00685	0.00755	0.000020	8225141	0.000750	0.0000050	8224358
Total Strontium (Sr)	mg/L	2.78	3.10	0.00020	8225141	3.78	0.000050	8224358
Total Thallium (Tl)	mg/L	0.000941	0.00117	0.0000080	8225141	0.00101	0.0000020	8224358
Total Tin (Sn)	mg/L	<0.00080	<0.00080	0.00080	8225141	0.00026	0.00020	8224358
Total Titanium (Ti)	mg/L	<0.020	<0.020	0.020	8225141	<0.00050	0.00050	8224358
Total Uranium (U)	mg/L	0.000808	0.000734	0.000020	8225141	0.000333	0.0000020	8224358
Total Vanadium (V)	mg/L	<0.0020	<0.0020	0.0020	8225141	<0.00020	0.00020	8224358
Total Zinc (Zn)	mg/L	1.02	0.835	0.0040	8225141	0.864	0.00010	8224358
Total Zirconium (Zr)	mg/L	<0.00040	<0.00040	0.00040	8225141	<0.00010	0.00010	8224358
Total Calcium (Ca)	mg/L	658	739	1.0	8222633	943	0.050	8222633
Total Magnesium (Mg)	mg/L	2.2	1.8	1.0	8222633	1.41	0.050	8222633
Total Potassium (K)	mg/L	57.8	62.9	1.0	8222633	76.5	0.050	8222633
Total Sodium (Na)	mg/L	208	228	1.0	8222633	285	0.050	8222633
Total Sulphur (S)	mg/L	896	924	60	8222633	2310	3.0	8222633
RDL = Reportable Detection Limit								

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YUKON ZINC CORPORATION
Site Location: TAILINGS
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.7°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample OI1774-03 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.
Sample OI1775-03 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8223855	Total Suspended Solids	2016/03/24	113	80 - 120	102	80 - 120	<4.0	mg/L	NC	20
8223928	Total Dissolved Solids	2016/03/24	NC	80 - 120	116	80 - 120	14, RDL=10	mg/L	3.0	20
8224222	pH	2016/03/23			101	97 - 103			0.26	N/A
8224231	Conductivity	2016/03/23			100	80 - 120	1.1, RDL=1.0	uS/cm		
8224232	Alkalinity (PP as CaCO3)	2016/03/24					<0.50	mg/L	NC	20
8224232	Alkalinity (Total as CaCO3)	2016/03/24	96	80 - 120	99	80 - 120	<0.50	mg/L	NC	20
8224232	Bicarbonate (HCO3)	2016/03/24					<0.50	mg/L	NC	20
8224232	Carbonate (CO3)	2016/03/24					<0.50	mg/L	NC	20
8224232	Hydroxide (OH)	2016/03/24					<0.50	mg/L	NC	20
8224266	Fluoride (F)	2016/03/23	NC	80 - 120	98	80 - 120	<0.010	mg/L	4.3	20
8224306	Strong Acid Dissoc. Cyanide (CN)	2016/03/23	0 (1)	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
8224311	Weak Acid Dissoc. Cyanide (CN)	2016/03/23			97	80 - 120	<0.00050	mg/L		
8224347	Dissolved Aluminum (Al)	2016/03/25	99	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
8224347	Dissolved Antimony (Sb)	2016/03/25	100	80 - 120	104	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Arsenic (As)	2016/03/25	101	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Barium (Ba)	2016/03/25	100	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Beryllium (Be)	2016/03/25	100	80 - 120	100	80 - 120	<0.000010	mg/L	NC	20
8224347	Dissolved Bismuth (Bi)	2016/03/25	97	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Boron (B)	2016/03/25	108	80 - 120	102	80 - 120	<0.010	mg/L	NC	20
8224347	Dissolved Cadmium (Cd)	2016/03/25	98	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Chromium (Cr)	2016/03/25	100	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8224347	Dissolved Cobalt (Co)	2016/03/25	101	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Copper (Cu)	2016/03/25	101	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Iron (Fe)	2016/03/25	98	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20
8224347	Dissolved Lead (Pb)	2016/03/25	98	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Lithium (Li)	2016/03/25	94	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8224347	Dissolved Manganese (Mn)	2016/03/25	99	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Molybdenum (Mo)	2016/03/25	96	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Nickel (Ni)	2016/03/25	99	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8224347	Dissolved Phosphorus (P)	2016/03/25					<0.0020	mg/L		
8224347	Dissolved Selenium (Se)	2016/03/25	98	80 - 120	97	80 - 120	<0.000040	mg/L	NC	20
8224347	Dissolved Silicon (Si)	2016/03/25					<0.050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8224347	Dissolved Silver (Ag)	2016/03/25	96	80 - 120	89	80 - 120	<0.0000050	mg/L	NC	20
8224347	Dissolved Strontium (Sr)	2016/03/25	98	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8224347	Dissolved Thallium (Tl)	2016/03/25	101	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20
8224347	Dissolved Tin (Sn)	2016/03/25	98	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8224347	Dissolved Titanium (Ti)	2016/03/25	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8224347	Dissolved Uranium (U)	2016/03/25	96	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8224347	Dissolved Vanadium (V)	2016/03/25	101	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8224347	Dissolved Zinc (Zn)	2016/03/25	106	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8224347	Dissolved Zirconium (Zr)	2016/03/25					<0.00010	mg/L	NC	20
8224358	Total Aluminum (Al)	2016/03/24	92	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
8224358	Total Antimony (Sb)	2016/03/24	92	80 - 120	105	80 - 120	<0.000020	mg/L	NC	20
8224358	Total Arsenic (As)	2016/03/24	93	80 - 120	94	80 - 120	<0.000020	mg/L	NC	20
8224358	Total Barium (Ba)	2016/03/24	95	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8224358	Total Beryllium (Be)	2016/03/24	91	80 - 120	100	80 - 120	<0.000010	mg/L	NC	20
8224358	Total Bismuth (Bi)	2016/03/24	92	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8224358	Total Boron (B)	2016/03/24	93	80 - 120	101	80 - 120	<0.010	mg/L	NC	20
8224358	Total Cadmium (Cd)	2016/03/24	93	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8224358	Total Chromium (Cr)	2016/03/24	94	80 - 120	95	80 - 120	<0.00010	mg/L	NC	20
8224358	Total Cobalt (Co)	2016/03/24	95	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8224358	Total Copper (Cu)	2016/03/24	94	80 - 120	95	80 - 120	<0.000050	mg/L	NC	20
8224358	Total Iron (Fe)	2016/03/24	93	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20
8224358	Total Lead (Pb)	2016/03/24	95	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20
8224358	Total Lithium (Li)	2016/03/24	84	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8224358	Total Manganese (Mn)	2016/03/24	94	80 - 120	96	80 - 120	0.000063, RDL=0.000050	mg/L	NC	20
8224358	Total Molybdenum (Mo)	2016/03/24	92	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8224358	Total Nickel (Ni)	2016/03/24	94	80 - 120	95	80 - 120	<0.000020	mg/L	NC	20
8224358	Total Phosphorus (P)	2016/03/24					<0.0020	mg/L		
8224358	Total Selenium (Se)	2016/03/24	87	80 - 120	93	80 - 120	<0.000040	mg/L	NC	20
8224358	Total Silicon (Si)	2016/03/24					<0.050	mg/L	NC	20
8224358	Total Silver (Ag)	2016/03/24	89	80 - 120	90	80 - 120	<0.0000050	mg/L	NC	20
8224358	Total Strontium (Sr)	2016/03/24	95	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8224358	Total Thallium (Tl)	2016/03/24	98	80 - 120	99	80 - 120	<0.0000020	mg/L	NC	20
8224358	Total Tin (Sn)	2016/03/24	93	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8224358	Total Titanium (Ti)	2016/03/24	90	80 - 120	91	80 - 120	<0.00050	mg/L	NC	20
8224358	Total Uranium (U)	2016/03/24	93	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8224358	Total Vanadium (V)	2016/03/24	93	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20
8224358	Total Zinc (Zn)	2016/03/24	97	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20
8224358	Total Zirconium (Zr)	2016/03/24					<0.00010	mg/L	NC	20
8224476	Total Ammonia (N)	2016/03/23	112	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20
8224505	Dissolved Chloride (Cl)	2016/03/23	106	80 - 120	97	80 - 120	<0.50	mg/L	7.4	20
8224507	Dissolved Sulphate (SO4)	2016/03/23			91	80 - 120	<0.50	mg/L	NC	20
8224563	Total Dissolved Solids	2016/03/24	NC	80 - 120	96	80 - 120	<10	mg/L	18	20
8224619	Nitrate plus Nitrite (N)	2016/03/23	NC	80 - 120	106	80 - 120	<0.0020	mg/L	0.21	25
8224620	Nitrite (N)	2016/03/23	98	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
8225141	Total Aluminum (Al)	2016/03/24	NC	80 - 120	107	80 - 120	<0.0030	mg/L		
8225141	Total Antimony (Sb)	2016/03/24	107	80 - 120	103	80 - 120	<0.000050	mg/L		
8225141	Total Arsenic (As)	2016/03/24	104	80 - 120	98	80 - 120	<0.000020	mg/L		
8225141	Total Barium (Ba)	2016/03/24	NC	80 - 120	106	80 - 120	<0.00010	mg/L		
8225141	Total Beryllium (Be)	2016/03/24	104	80 - 120	100	80 - 120	<0.000010	mg/L		
8225141	Total Bismuth (Bi)	2016/03/24	104	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8225141	Total Boron (B)	2016/03/24	110	80 - 120	106	80 - 120	<0.050	mg/L		
8225141	Total Cadmium (Cd)	2016/03/24	98	80 - 120	98	80 - 120	<0.0000050	mg/L		
8225141	Total Chromium (Cr)	2016/03/24	103	80 - 120	102	80 - 120	<0.00050	mg/L		
8225141	Total Cobalt (Co)	2016/03/24	101	80 - 120	102	80 - 120	<0.000010	mg/L		
8225141	Total Copper (Cu)	2016/03/24	97	80 - 120	104	80 - 120	<0.00020	mg/L		
8225141	Total Iron (Fe)	2016/03/24	NC	80 - 120	102	80 - 120	<0.0050	mg/L		
8225141	Total Lead (Pb)	2016/03/24	110	80 - 120	103	80 - 120	<0.000050	mg/L		
8225141	Total Lithium (Li)	2016/03/24	NC	80 - 120	101	80 - 120	<0.00050	mg/L		
8225141	Total Manganese (Mn)	2016/03/24	NC	80 - 120	101	80 - 120	<0.00010	mg/L		
8225141	Total Molybdenum (Mo)	2016/03/24	NC	80 - 120	96	80 - 120	<0.000050	mg/L		
8225141	Total Nickel (Ni)	2016/03/24	98	80 - 120	99	80 - 120	<0.00010	mg/L		
8225141	Total Phosphorus (P)	2016/03/24					<0.010	mg/L		
8225141	Total Selenium (Se)	2016/03/24	93	80 - 120	96	80 - 120	<0.000040	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: TAILINGS
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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8225141	Total Silicon (Si)	2016/03/24					<0.10	mg/L		
8225141	Total Silver (Ag)	2016/03/24	109	80 - 120	95	80 - 120	<0.0000050	mg/L		
8225141	Total Strontium (Sr)	2016/03/24	NC	80 - 120	101	80 - 120	<0.000050	mg/L		
8225141	Total Thallium (Tl)	2016/03/24	98	80 - 120	88	80 - 120	<0.0000020	mg/L		
8225141	Total Tin (Sn)	2016/03/24	106	80 - 120	104	80 - 120	<0.00020	mg/L		
8225141	Total Titanium (Ti)	2016/03/24	105	80 - 120	95	80 - 120	<0.0050	mg/L		
8225141	Total Uranium (U)	2016/03/24	108	80 - 120	101	80 - 120	<0.0000050	mg/L		
8225141	Total Vanadium (V)	2016/03/24	107	80 - 120	102	80 - 120	<0.00050	mg/L		
8225141	Total Zinc (Zn)	2016/03/24	98	80 - 120	103	80 - 120	<0.0010	mg/L		
8225141	Total Zirconium (Zr)	2016/03/24					<0.00010	mg/L		
8226031	Total Phosphorus (P)	2016/03/24	NC	80 - 120	98	80 - 120	<0.0020	mg/L	0.77	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B621455
Report Date: 2016/03/28

YUKON ZINC CORPORATION
Site Location: TAILINGS
Sampler Initials: DD

VALIDATION SIGNATURE PAGE

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



Rob Reinert, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY RECORD

COC #: 08419386

BBY FCD-00077/05

Page ____ of ____

Invoice Information	Report Information (if differs from invoice)	Project Information (where a
Company Name: Yukon Zinc Corporation	Company Name: Yukon Zinc Corporation	Quotation #:
Contact Name: Alex Wu	Contact Name: Alex Wu	P.O. #/ AFE#:
Address: 705-1030 West Georgia Street	Address: 705-1030 West Georgia Street	Project #:
Vancouver PC: V6E 2Y3	Vancouver PC: V6E 2Y3	Site Location: Tailings
Phone: 604-684-5474	Phone: 604-684-5474	Site #: T1
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By: Dustin Doolan

(TAT) Required

- ☐ Regular TAT 5 days (Most analyses)

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)

- ☐ Same Day
- ☐ 2 Days
- ☐ 1 Day
- ☐ 3 Days

Date Required:

Rush Confirmation #:

Regulatory Criteria

- ☐ BC CSR Soil
- ☐ BC CSR Water
- ☐ CCME (Specify)
- ☐ Other (Specify)
- ☐ Drinking Water
- ☐ BC Water Quality

Special Instructions

- ☒ Return Cooler
- ☐ Ship Sample Bottles (Please Specify)

Analysis Requested

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	VOC/VPH	TEH	LEPH/HEPH	F2 - F4	Preserved?	Preserved?	Field Preserved?	Field Preserved?	Sulphate	COD	Alkalinity	Ammonia	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
	MTBE								BTEX/F1	Filtered?	Filtered?	Filtered?		Fluoride	BOD	Conductivity	Nitrate		
	BTEX/VPH								CCME-PHC	Dissolved Metals	Dissolved Mercury	Total Metals	Total Mercury	Chloride	TDS	pH	Nitrite	WAD and SAD Cyanide	Total Phosphate
1			2016/03/17	5:45	Water					X		X		X	X	X	X	X	X
2	T1-1		2016/03/17	5:38	Water					X		X		X	X	X	X	X	X
3	T1-2		2016/03/17	5:30	Water					X		X		X	X	X	X	X	X
4	T1-3																		
5																			
6																			
7																			
8																			
9																			
10																			

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
NA		2.2 |

COOLING MEDIA PRESENT (Y) / N

COMMENTS

B621455_COC

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
			Laurel Heather	2016/03/21	11:40	B621455

Your C.O.C. #: 08420470

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/05/12
Report #: R2180823
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B632583
Received: 2016/04/29, 10:00

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	7	N/A	2016/05/02	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	7	2016/04/30	2016/05/01	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	6	N/A	2016/05/02	BBY6SOP-00011	SM 22 4500-Cl- G m
Chloride by Automated Colourimetry	1	N/A	2016/05/03	BBY6SOP-00011	SM 22 4500-Cl- G m
Cyanide SAD (strong acid dissociable)	5	N/A	2016/05/03	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide SAD (strong acid dissociable)	2	N/A	2016/05/04	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	7	N/A	2016/05/03	BBY6SOP-00004	SM 22 4500-CN O
Carbon (DOC) - unfiltered/unpreserved (1)	7	N/A	2016/05/02	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	7	N/A	2016/05/01	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	7	N/A	2016/05/03	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	7	N/A	2016/05/05	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	7	N/A	2016/05/05	BBY7SOP-00002	EPA 6020a R1 m
Mercury (Dissolved) by CVAF	7	N/A	2016/05/05	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	7	2016/05/05	2016/05/05	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Bromide as Bromine (Br) by ICPMS	7	N/A	2016/05/10	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	7	N/A	2016/05/05	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	7	N/A	2016/05/05	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Digested LL (total)	7	2016/05/04	2016/05/05	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2016/05/05	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Preserved)	7	N/A	2016/05/04	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	7	N/A	2016/04/30	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	7	N/A	2016/04/30	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	7	N/A	2016/05/03	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	7	N/A	2016/05/03	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	7	N/A	2016/05/01	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	7	N/A	2016/04/30	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	6	N/A	2016/05/02	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2016/05/03	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	7	2016/05/02	2016/05/03	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	5	2016/05/03	2016/05/03	BBY6SOP-00013	SM 22 4500-P E m

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: 08420470

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/05/12
Report #: R2180823
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B632583
Received: 2016/04/29, 10:00

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Phosphorus-P (LL Tot, dissolved) - UF/UP	2	2016/05/11	2016/05/11	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	5	N/A	2016/05/03	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	2	N/A	2016/05/11	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	7	2016/05/02	2016/05/03	BBY6SOP-00034	SM 22 2540 D
Turbidity	7	N/A	2016/04/30	BBY6SOP-00027	SM 22 2130 B m

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) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7474		ON7475		ON7476		
Sampling Date		2016/04/25 09:13		2016/04/25 10:02		2016/04/25 10:05		
COC Number		08420470		08420470		08420470		
	UNITS	W22	QC Batch	W71	QC Batch	W72	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.063	8259199	0.590	8259199	0.090	0.010	8259199
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	91.1	8256421	329	8256421	108	0.50	8256421
Nitrate (N)	mg/L	0.35	8256422	<0.20	8256422	0.28	0.20	8256422
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8259080	<0.00050	8259080	<0.00050	0.00050	8259080
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8259098	<0.00050	8259098	<0.00050	0.00050	8259098
Dissolved Hardness (CaCO3)	mg/L	90.5	8256371	322	8256371	104	0.50	8256371
Dissolved Organic Carbon (C)	mg/L	3.98 (1)	8257715	6.22 (1)	8257715	15.4 (1)	0.50	8257715
Acidity (pH 4.5)	mg/L	<0.50	8258146	<0.50	8258146	<0.50	0.50	8258141
Alkalinity (Total as CaCO3)	mg/L	83.3	8256790	244	8256790	85.9	0.50	8256790
Acidity (pH 8.3)	mg/L	<0.50	8258146	<0.50	8258146	<0.50	0.50	8258141
Alkalinity (PP as CaCO3)	mg/L	<0.50	8256790	2.86	8256790	<0.50	0.50	8256790
Bicarbonate (HCO3)	mg/L	102	8256790	291	8256790	105	0.50	8256790
Carbonate (CO3)	mg/L	<0.50	8256790	3.43	8256790	<0.50	0.50	8256790
Hydroxide (OH)	mg/L	<0.50	8256790	<0.50	8256790	<0.50	0.50	8256790
Anions								
Orthophosphate (P)	mg/L	0.0027 (1)	8256867	0.012 (1)	8256867	0.0077 (1)	0.0010	8256867
Dissolved Sulphate (SO4)	mg/L	20.1	8258482	115	8259654	25.6	0.50	8258482
Dissolved Chloride (Cl)	mg/L	<0.50	8258481	2.0	8258481	1.3	0.50	8258481
Nutrients								
Total Ammonia (N)	mg/L	0.061	8260411	0.028	8260411	0.046	0.0050	8260411
Dissolved Phosphorus (P)	mg/L	0.0155	8266701	0.0193 (1)	8259319	0.0677 (1)	0.0020	8259319
Nitrate plus Nitrite (N)	mg/L	0.35 (2)	8256880	<0.20 (2)	8256880	0.28 (2)	0.20	8256880
Nitrite (N)	mg/L	<0.20 (2)	8256881	<0.20 (2)	8256881	<0.20 (2)	0.20	8256881
Total Phosphorus (P)	mg/L	0.0199	8266703	0.0235	8259332	0.0557	0.0020	8259332
Physical Properties								
Conductivity	uS/cm	199	8256791	618	8256791	209	1.0	8256791
pH	pH	8.12	8256792	8.36	8256792	8.05		8256792

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7474		ON7475		ON7476		
Sampling Date		2016/04/25 09:13		2016/04/25 10:02		2016/04/25 10:05		
COC Number		08420470		08420470		08420470		
	UNITS	W22	QC Batch	W71	QC Batch	W72	RDL	QC Batch
Physical Properties								
Total Suspended Solids	mg/L	7.8	8257510	<4.0	8257510	<4.0	4.0	8257510
Total Dissolved Solids	mg/L	102	8257676	362	8257676	124	10	8257676
Turbidity	NTU	2.10 (1)	8256687	0.31 (1)	8256688	3.04 (1)	0.10	8256688

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7477			ON7478			ON7479		
Sampling Date		2016/04/25 10:24			2016/04/25 14:53			2016/04/25 15:05		
COC Number		08420470			08420470			08420470		
	UNITS	W73	RDL	QC Batch	T1	RDL	QC Batch	T2	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.046	0.010	8259199	0.067	0.010	8259199	0.210	0.010	8259199
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	93.5	0.50	8256421	551	0.50	8256421	1810	0.50	8256421
Nitrate (N)	mg/L	0.28	0.20	8256422	<0.20	0.20	8256422	0.22	0.20	8256422
Misc. Inorganics										
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8259080	0.0636	0.00050	8259080	0.223	0.0050	8260360
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8259098	0.00248	0.00050	8259098	0.0153	0.00050	8259098
Dissolved Hardness (CaCO3)	mg/L	95.5	0.50	8256371	421	0.50	8256371	1760	0.50	8256371
Dissolved Organic Carbon (C)	mg/L	4.23 (1)	0.50	8257715	11.4 (1)	0.50	8257715	25.4 (1)	0.50	8257715
Acidity (pH 4.5)	mg/L	<0.50	0.50	8258146	<0.50	0.50	8258146	<0.50	0.50	8258146
Alkalinity (Total as CaCO3)	mg/L	89.6	0.50	8256790	2.98	0.50	8256790	2.12	0.50	8256790
Acidity (pH 8.3)	mg/L	<0.50	0.50	8258146	1.57	0.50	8258146	5.34	0.50	8258146
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8256790	<0.50	0.50	8256790	<0.50	0.50	8256790
Bicarbonate (HCO3)	mg/L	109	0.50	8256790	3.64	0.50	8256790	2.59	0.50	8256790
Carbonate (CO3)	mg/L	<0.50	0.50	8256790	<0.50	0.50	8256790	<0.50	0.50	8256790
Hydroxide (OH)	mg/L	<0.50	0.50	8256790	<0.50	0.50	8256790	<0.50	0.50	8256790
Anions										
Orthophosphate (P)	mg/L	0.0054 (1)	0.0010	8256867	0.010 (1)	0.0010	8256867	0.028 (2)	0.010	8256867
Dissolved Sulphate (SO4)	mg/L	15.0	0.50	8258482	581 (3)	5.0	8258482	1790 (3)	5.0	8258482
Dissolved Chloride (Cl)	mg/L	0.79	0.50	8258481	160	0.50	8259652	530 (3)	5.0	8258481
Nutrients										
Total Ammonia (N)	mg/L	0.031	0.0050	8260411	0.17	0.0050	8260411	1.7 (3)	0.050	8260411
Dissolved Phosphorus (P)	mg/L	0.0177 (1)	0.0020	8259319	0.0486	0.0020	8266701	0.169 (1)	0.0020	8259319
Nitrate plus Nitrite (N)	mg/L	0.28 (2)	0.20	8256880	<0.20 (2)	0.20	8256880	0.22 (2)	0.20	8256880
Nitrite (N)	mg/L	<0.20 (2)	0.20	8256881	<0.20 (2)	0.20	8256881	<0.20 (2)	0.20	8256881
Total Phosphorus (P)	mg/L	0.0174	0.0020	8259332	0.0527	0.0020	8266703	0.153	0.0020	8259332
Physical Properties										
Conductivity	uS/cm	198	1.0	8256791	1370	1.0	8256791	3680	1.0	8256791
pH	pH	8.15		8256792	6.45		8256792	5.93		8256792

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.
(3) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7477			ON7478			ON7479		
Sampling Date		2016/04/25 10:24			2016/04/25 14:53			2016/04/25 15:05		
COC Number		08420470			08420470			08420470		
	UNITS	W73	RDL	QC Batch	T1	RDL	QC Batch	T2	RDL	QC Batch
Physical Properties										
Total Suspended Solids	mg/L	<4.0	4.0	8257510	<4.0	4.0	8257510	<4.0	4.0	8257510
Total Dissolved Solids	mg/L	104	10	8257676	990	10	8257676	3360	10	8257676
Turbidity	NTU	1.23 (1)	0.10	8256688	3.97 (1)	0.10	8256688	10.2 (1)	0.10	8256688

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7480		
Sampling Date		2016/04/25 15:41		
COC Number		08420470		
	UNITS	T3	RDL	QC Batch
Misc. Inorganics				
Fluoride (F)	mg/L	0.260	0.010	8259199
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	2200	0.50	8256421
Nitrate (N)	mg/L	0.42	0.20	8256422
Misc. Inorganics				
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.355	0.0050	8260360
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.0429	0.00050	8259098
Dissolved Hardness (CaCO3)	mg/L	2180	0.50	8256371
Dissolved Organic Carbon (C)	mg/L	33.9 (1)	0.50	8257715
Acidity (pH 4.5)	mg/L	<0.50	0.50	8258146
Alkalinity (Total as CaCO3)	mg/L	8.15	0.50	8256790
Acidity (pH 8.3)	mg/L	4.49	0.50	8258146
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8256790
Bicarbonate (HCO3)	mg/L	9.94	0.50	8256790
Carbonate (CO3)	mg/L	<0.50	0.50	8256790
Hydroxide (OH)	mg/L	<0.50	0.50	8256790
Anions				
Orthophosphate (P)	mg/L	0.050 (2)	0.010	8256867
Dissolved Sulphate (SO4)	mg/L	1920 (3)	5.0	8258482
Dissolved Chloride (Cl)	mg/L	1100 (3)	5.0	8258481
Nutrients				
Total Ammonia (N)	mg/L	3.5 (3)	0.050	8260411
Dissolved Phosphorus (P)	mg/L	0.117 (1)	0.0020	8259319
Nitrate plus Nitrite (N)	mg/L	0.42 (2)	0.20	8256880
Nitrite (N)	mg/L	<0.20 (2)	0.20	8256881
Total Phosphorus (P)	mg/L	0.153	0.0020	8259332
Physical Properties				
Conductivity	uS/cm	4640	1.0	8256791

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.
(3) Detection limits raised due to dilution to bring analyte within the calibrated range.

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7480		
Sampling Date		2016/04/25 15:41		
COC Number		08420470		
	UNITS	**T3**	**RDL**	**QC Batch**
pH	pH	6.61		8256792
Physical Properties				
Total Suspended Solids	mg/L	4.0	4.0	8257510
Total Dissolved Solids	mg/L	4030	50	8257676
Turbidity	NTU	11.7 (1)	0.10	8256688

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

MERCURY BY COLD VAPOR (WATER)

Maxxam ID		ON7474	ON7475	ON7476	ON7477	ON7478		ON7479		
Sampling Date		2016/04/25 09:13	2016/04/25 10:02	2016/04/25 10:05	2016/04/25 10:24	2016/04/25 14:53		2016/04/25 15:05		
COC Number		08420470	08420470	08420470	08420470	08420470		08420470		
	UNITS	W22	W71	W72	W73	T1	RDL	T2	RDL	QC Batch
Elements										
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	<0.020 (1)	0.020	8260916
Total Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	0.022 (1)	0.020	8260922

RDL = Reportable Detection Limit
(1) RDL raised due to sample matrix interference sample dilution required

Maxxam ID		ON7480		
Sampling Date		2016/04/25 15:41		
COC Number		08420470		
	UNITS	T3	RDL	QC Batch
Elements				
Dissolved Mercury (Hg)	ug/L	<0.010	0.010	8260916
Total Mercury (Hg)	ug/L	<0.010	0.010	8260922

RDL = Reportable Detection Limit

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7474	ON7475	ON7476	ON7477		
Sampling Date		2016/04/25 09:13	2016/04/25 10:02	2016/04/25 10:05	2016/04/25 10:24		
COC Number		08420470	08420470	08420470	08420470		
	UNITS	W22	W71	W72	W73	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	8264903
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00639	0.00399	0.0178	0.00719	0.00050	8258806
Dissolved Antimony (Sb)	mg/L	0.000099	0.000443	0.000141	0.000094	0.000020	8258806
Dissolved Arsenic (As)	mg/L	0.000299	0.000231	0.00132	0.000255	0.000020	8258806
Dissolved Barium (Ba)	mg/L	0.0518	0.0485	0.0508	0.0619	0.000020	8258806
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8258806
Dissolved Bismuth (Bi)	mg/L	0.0000070	<0.0000050	0.0000110	<0.0000050	0.0000050	8258806
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	8258806
Dissolved Cadmium (Cd)	mg/L	0.0000170	0.00300	0.000233	0.0000120	0.0000050	8258806
Dissolved Chromium (Cr)	mg/L	0.00012	<0.00010	<0.00010	0.00022	0.00010	8258806
Dissolved Cobalt (Co)	mg/L	0.0000240	0.0000590	0.0000570	0.0000230	0.0000050	8258806
Dissolved Copper (Cu)	mg/L	0.000587	0.000378	0.00110	0.00122	0.000050	8258806
Dissolved Iron (Fe)	mg/L	0.0333	0.0142	0.149	0.125	0.0010	8258806
Dissolved Lead (Pb)	mg/L	0.0000310	<0.0000050	0.0000210	<0.0000050	0.0000050	8258806
Dissolved Lithium (Li)	mg/L	0.00185	0.00215	<0.00050	<0.00050	0.00050	8258806
Dissolved Manganese (Mn)	mg/L	0.00299	0.0150	0.0683	0.00642	0.000050	8258806
Dissolved Molybdenum (Mo)	mg/L	0.000567	0.00356	0.00158	0.000385	0.000050	8258806
Dissolved Nickel (Ni)	mg/L	0.000726	0.0266	0.00413	0.000940	0.000020	8258806
Dissolved Phosphorus (P)	mg/L	0.0084	0.0161	0.0289	0.0175	0.0020	8258806
Dissolved Selenium (Se)	mg/L	0.000268	0.00291	0.000629	0.000368	0.000040	8258806
Dissolved Silicon (Si)	mg/L	3.91	4.12	2.96	4.06	0.050	8258806
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8258806
Dissolved Strontium (Sr)	mg/L	0.101	0.234	0.122	0.0935	0.000050	8258806
Dissolved Thallium (Tl)	mg/L	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000020	8258806
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8258806
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8258806
Dissolved Uranium (U)	mg/L	0.000998	0.00964	0.000769	0.000361	0.0000020	8258806
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8258806
Dissolved Zinc (Zn)	mg/L	0.00106	0.587	0.0333	0.00162	0.00010	8258806
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00011	0.00011	<0.00010	0.00010	8258806
Dissolved Calcium (Ca)	mg/L	23.6	85.7	26.6	24.7	0.050	8255771
Dissolved Magnesium (Mg)	mg/L	7.67	26.2	9.01	8.21	0.050	8255771
Dissolved Potassium (K)	mg/L	0.835	0.730	0.748	0.525	0.050	8255771
RDL = Reportable Detection Limit							

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7474	ON7475	ON7476	ON7477		
Sampling Date		2016/04/25 09:13	2016/04/25 10:02	2016/04/25 10:05	2016/04/25 10:24		
COC Number		08420470	08420470	08420470	08420470		
	UNITS	W22	W71	W72	W73	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	1.46	0.783	0.952	0.988	0.050	8255771
Dissolved Sulphur (S)	mg/L	5.2	33.4	6.9	4.3	3.0	8255771
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0806	0.0393	0.167	0.0266	0.0030	8260078
Total Antimony (Sb)	mg/L	<0.000050	0.000404	0.000166	0.000078	0.000050	8260078
Total Arsenic (As)	mg/L	0.000375	0.000270	0.00236	0.000324	0.000020	8260078
Total Barium (Ba)	mg/L	0.0622	0.0505	0.0676	0.0647	0.00010	8260078
Total Beryllium (Be)	mg/L	0.000014	<0.000010	0.000015	<0.000010	0.000010	8260078
Total Bismuth (Bi)	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	0.000020	8260078
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	<0.050	0.050	8260078
Total Cadmium (Cd)	mg/L	0.0000370	0.00322	0.000501	0.0000150	0.0000050	8260078
Total Chromium (Cr)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8260078
Total Cobalt (Co)	mg/L	0.000213	0.000155	0.000288	0.000051	0.000010	8260078
Total Copper (Cu)	mg/L	0.00117	0.00078	0.00235	0.00174	0.00020	8260078
Total Iron (Fe)	mg/L	0.285	0.0977	0.715	0.256	0.0050	8260078
Total Lead (Pb)	mg/L	0.000207	0.000098	0.000391	<0.000050	0.000050	8260078
Total Lithium (Li)	mg/L	0.00072	0.00225	<0.00050	0.00058	0.00050	8260078
Total Manganese (Mn)	mg/L	0.0392	0.0204	0.165	0.0393	0.00010	8260078
Total Molybdenum (Mo)	mg/L	0.000629	0.00369	0.00168	0.000413	0.000050	8260078
Total Nickel (Ni)	mg/L	0.00158	0.0275	0.00569	0.00112	0.00010	8260078
Total Phosphorus (P)	mg/L	0.036	0.054	0.062	0.025	0.010	8260078
Total Selenium (Se)	mg/L	0.000449	0.00329	0.000952	0.000668	0.000040	8260078
Total Silicon (Si)	mg/L	4.04	4.11	3.29	4.07	0.10	8260078
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8260078
Total Strontium (Sr)	mg/L	0.0978	0.236	0.122	0.0920	0.000050	8260078
Total Thallium (Tl)	mg/L	0.0000030	0.0000040	0.0000040	<0.0000020	0.0000020	8260078
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8260078
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8260078
Total Uranium (U)	mg/L	0.00107	0.00982	0.000829	0.000363	0.0000050	8260078
Total Vanadium (V)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8260078
Total Zinc (Zn)	mg/L	0.0032	0.622	0.0494	0.0015	0.0010	8260078
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00021	<0.00010	0.00010	8260078
Total Calcium (Ca)	mg/L	23.7	89.4	27.8	23.9	0.25	8255899
Total Magnesium (Mg)	mg/L	7.76	25.7	9.43	8.21	0.25	8255899
Total Potassium (K)	mg/L	0.87	0.76	0.83	0.56	0.25	8255899
RDL = Reportable Detection Limit							

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7474	ON7475	ON7476	ON7477		
Sampling Date		2016/04/25 09:13	2016/04/25 10:02	2016/04/25 10:05	2016/04/25 10:24		
COC Number		08420470	08420470	08420470	08420470		
	UNITS	**W22**	**W71**	**W72**	**W73**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	1.47	0.73	0.91	1.01	0.25	8255899
Total Sulphur (S)	mg/L	<15	34	<15	<15	15	8255899
RDL = Reportable Detection Limit							

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7478	ON7479	ON7480		
Sampling Date		2016/04/25 14:53	2016/04/25 15:05	2016/04/25 15:41		
COC Number		08420470	08420470	08420470		
	UNITS	T1	T2	T3	RDL	QC Batch
ANIONS						
Bromide (Br)	mg/L	<0.10	0.13	0.15	0.10	8264903
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.0308	0.0512	0.0527	0.00050	8258806
Dissolved Antimony (Sb)	mg/L	0.0127	0.0543	0.0621	0.000020	8258806
Dissolved Arsenic (As)	mg/L	0.00276	0.0118	0.00702	0.000020	8258806
Dissolved Barium (Ba)	mg/L	0.0350	0.107	0.116	0.000020	8258806
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	8258806
Dissolved Bismuth (Bi)	mg/L	0.0000090	<0.0000050	0.0000110	0.0000050	8258806
Dissolved Boron (B)	mg/L	<0.010	0.017	0.019	0.010	8258806
Dissolved Cadmium (Cd)	mg/L	0.00578	0.0116	0.00426	0.0000050	8258806
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00011	0.00010	8258806
Dissolved Cobalt (Co)	mg/L	0.000598	0.00183	0.00109	0.0000050	8258806
Dissolved Copper (Cu)	mg/L	0.142	0.636	0.889	0.000050	8258806
Dissolved Iron (Fe)	mg/L	0.187	0.319	0.428	0.0010	8258806
Dissolved Lead (Pb)	mg/L	0.0359	0.214	0.229	0.0000050	8258806
Dissolved Lithium (Li)	mg/L	0.00230	0.0138	0.0171	0.00050	8258806
Dissolved Manganese (Mn)	mg/L	0.0827	0.299	0.0890	0.000050	8258806
Dissolved Molybdenum (Mo)	mg/L	0.0166	0.137	0.0643	0.000050	8258806
Dissolved Nickel (Ni)	mg/L	0.00214	0.00664	0.00998	0.000020	8258806
Dissolved Phosphorus (P)	mg/L	0.0386	0.136	0.142	0.0020	8258806
Dissolved Selenium (Se)	mg/L	0.662	2.57	3.89	0.000040	8258806
Dissolved Silicon (Si)	mg/L	0.507	2.02	1.74	0.050	8258806
Dissolved Silver (Ag)	mg/L	0.000990	0.00888	0.000905	0.0000050	8258806
Dissolved Strontium (Sr)	mg/L	0.619	2.86	3.62	0.000050	8258806
Dissolved Thallium (Tl)	mg/L	0.000271	0.00124	0.00108	0.0000020	8258806
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8258806
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	8258806
Dissolved Uranium (U)	mg/L	0.000184	0.000615	0.000278	0.0000020	8258806
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8258806
Dissolved Zinc (Zn)	mg/L	0.469	1.02	0.935	0.00010	8258806
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	8258806
Dissolved Calcium (Ca)	mg/L	167	700	871	0.050	8255771
Dissolved Magnesium (Mg)	mg/L	0.763	2.08	1.31	0.050	8255771
Dissolved Potassium (K)	mg/L	13.5	53.7	71.4	0.050	8255771
RDL = Reportable Detection Limit						

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7478	ON7479	ON7480		
Sampling Date		2016/04/25 14:53	2016/04/25 15:05	2016/04/25 15:41		
COC Number		08420470	08420470	08420470		
	UNITS	T1	T2	T3	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	48.1	203	266	0.050	8255771
Dissolved Sulphur (S)	mg/L	225	911	1450 (1)	3.0	8255771
Total Metals by ICPMS						
Total Aluminum (Al)	mg/L	0.0626	0.0559	0.0577	0.0030	8260078
Total Antimony (Sb)	mg/L	0.0167	0.0585	0.0675	0.000050	8260078
Total Arsenic (As)	mg/L	0.00368	0.0107	0.00845	0.000020	8260078
Total Barium (Ba)	mg/L	0.0452	0.146	0.122	0.00010	8260078
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	8260078
Total Bismuth (Bi)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	8260078
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	0.050	8260078
Total Cadmium (Cd)	mg/L	0.00764	0.0115	0.00444	0.0000050	8260078
Total Chromium (Cr)	mg/L	0.00225	<0.00050	0.00065	0.00050	8260078
Total Cobalt (Co)	mg/L	0.000827	0.00184	0.00115	0.000010	8260078
Total Copper (Cu)	mg/L	0.180	0.693	1.12	0.00020	8260078
Total Iron (Fe)	mg/L	0.306	0.338	0.439	0.0050	8260078
Total Lead (Pb)	mg/L	0.0547	0.230	0.238	0.000050	8260078
Total Lithium (Li)	mg/L	0.00263	0.0119	0.0168	0.00050	8260078
Total Manganese (Mn)	mg/L	0.109	0.309	0.0918	0.00010	8260078
Total Molybdenum (Mo)	mg/L	0.0203	0.144	0.112	0.000050	8260078
Total Nickel (Ni)	mg/L	0.00341	0.00681	0.0104	0.00010	8260078
Total Phosphorus (P)	mg/L	0.098	0.136	0.189	0.010	8260078
Total Selenium (Se)	mg/L	0.832	2.03	4.02	0.000040	8260078
Total Silicon (Si)	mg/L	0.67	2.09	1.82	0.10	8260078
Total Silver (Ag)	mg/L	0.000865	0.00833	0.00516	0.0000050	8260078
Total Strontium (Sr)	mg/L	0.824	2.84	3.74	0.000050	8260078
Total Thallium (Tl)	mg/L	0.000387	0.00141	0.00124	0.0000020	8260078
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8260078
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	8260078
Total Uranium (U)	mg/L	0.000276	0.000939	0.000345	0.0000050	8260078
Total Vanadium (V)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	8260078
Total Zinc (Zn)	mg/L	0.632	1.04	0.945	0.0010	8260078
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	8260078
Total Calcium (Ca)	mg/L	219	721	877	0.25	8255899
Total Magnesium (Mg)	mg/L	0.98	2.14	1.38	0.25	8255899

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7478	ON7479	ON7480		
Sampling Date		2016/04/25 14:53	2016/04/25 15:05	2016/04/25 15:41		
COC Number		08420470	08420470	08420470		
	UNITS	T1	T2	T3	RDL	QC Batch
Total Potassium (K)	mg/L	18.1	55.8	73.2	0.25	8255899
Total Sodium (Na)	mg/L	63.7	215	286	0.25	8255899
Total Sulphur (S)	mg/L	277	935	1020	15	8255899
RDL = Reportable Detection Limit						

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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample ON7478-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample ON7479-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample ON7480-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8256687	Turbidity	2016/04/30			103	80 - 120	<0.10	NTU	3.5	20
8256688	Turbidity	2016/04/30			103	80 - 120	<0.10	NTU	2.5	20
8256790	Alkalinity (PP as CaCO3)	2016/05/01					<0.50	mg/L	2.9	20
8256790	Alkalinity (Total as CaCO3)	2016/05/01	NC	80 - 120	103	80 - 120	<0.50	mg/L	0.68	20
8256790	Bicarbonate (HCO3)	2016/05/01					<0.50	mg/L	0.91	20
8256790	Carbonate (CO3)	2016/05/01					<0.50	mg/L	2.9	20
8256790	Hydroxide (OH)	2016/05/01					<0.50	mg/L	NC	20
8256791	Conductivity	2016/05/01			102	80 - 120	1.0, RDL=1.0	uS/cm	0.71	20
8256792	pH	2016/05/01			101	97 - 103			0.24	N/A
8256867	Orthophosphate (P)	2016/04/30	94	80 - 120	106	80 - 120	<0.0010	mg/L	4.4	20
8256880	Nitrate plus Nitrite (N)	2016/04/30	NC	80 - 120	97	80 - 120	<0.0020	mg/L	0.57	25
8256881	Nitrite (N)	2016/04/30	98	80 - 120	94	80 - 120	<0.0020	mg/L	NC	25
8257510	Total Suspended Solids	2016/05/03	103	80 - 120	104	80 - 120	<4.0	mg/L	NC	20
8257676	Total Dissolved Solids	2016/05/03	NC	80 - 120	96	80 - 120	<10	mg/L	4.0	20
8257715	Dissolved Organic Carbon (C)	2016/05/02	98	80 - 120	108	80 - 120	<0.50	mg/L	NC	20
8258141	Acidity (pH 4.5)	2016/05/02					<0.50	mg/L	NC	20
8258141	Acidity (pH 8.3)	2016/05/02			101	80 - 120	<0.50	mg/L	NC	20
8258146	Acidity (pH 4.5)	2016/05/02					<0.50	mg/L	NC	20
8258146	Acidity (pH 8.3)	2016/05/02			102	80 - 120	<0.50	mg/L	NC	20
8258481	Dissolved Chloride (Cl)	2016/05/02	NC	80 - 120	97	80 - 120	0.55, RDL=0.50	mg/L	1.6	20
8258482	Dissolved Sulphate (SO4)	2016/05/02	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.69	20
8258806	Dissolved Aluminum (Al)	2016/05/05	98	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
8258806	Dissolved Antimony (Sb)	2016/05/05	96	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8258806	Dissolved Arsenic (As)	2016/05/05	98	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8258806	Dissolved Barium (Ba)	2016/05/05	105	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8258806	Dissolved Beryllium (Be)	2016/05/05	88	80 - 120	93	80 - 120	<0.000010	mg/L	NC	20
8258806	Dissolved Bismuth (Bi)	2016/05/05	97	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
8258806	Dissolved Boron (B)	2016/05/05	86	80 - 120	89	80 - 120	<0.010	mg/L	NC	20
8258806	Dissolved Cadmium (Cd)	2016/05/05	102	80 - 120	108	80 - 120	<0.0000050	mg/L	NC	20
8258806	Dissolved Chromium (Cr)	2016/05/05	101	80 - 120	104	80 - 120	<0.00010	mg/L	NC	20
8258806	Dissolved Cobalt (Co)	2016/05/05	102	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8258806	Dissolved Copper (Cu)	2016/05/05	102	80 - 120	106	80 - 120	<0.000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8258806	Dissolved Iron (Fe)	2016/05/05	104	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20
8258806	Dissolved Lead (Pb)	2016/05/05	101	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8258806	Dissolved Lithium (Li)	2016/05/05	96	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
8258806	Dissolved Manganese (Mn)	2016/05/05	101	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8258806	Dissolved Molybdenum (Mo)	2016/05/05	99	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8258806	Dissolved Nickel (Ni)	2016/05/05	101	80 - 120	105	80 - 120	<0.000020	mg/L	NC	20
8258806	Dissolved Phosphorus (P)	2016/05/05					<0.0020	mg/L	NC	20
8258806	Dissolved Selenium (Se)	2016/05/05	100	80 - 120	102	80 - 120	<0.000040	mg/L	NC	20
8258806	Dissolved Silicon (Si)	2016/05/05					<0.050	mg/L	NC	20
8258806	Dissolved Silver (Ag)	2016/05/05	108	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8258806	Dissolved Strontium (Sr)	2016/05/05	99	80 - 120	94	80 - 120	<0.000050	mg/L	NC	20
8258806	Dissolved Thallium (Tl)	2016/05/05	102	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8258806	Dissolved Tin (Sn)	2016/05/05	100	80 - 120	105	80 - 120	<0.00020	mg/L	NC	20
8258806	Dissolved Titanium (Ti)	2016/05/05	92	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
8258806	Dissolved Uranium (U)	2016/05/05	99	80 - 120	100	80 - 120	<0.0000020	mg/L	NC	20
8258806	Dissolved Vanadium (V)	2016/05/05	104	80 - 120	105	80 - 120	<0.00020	mg/L	NC	20
8258806	Dissolved Zinc (Zn)	2016/05/05	112	80 - 120	108	80 - 120	<0.00010	mg/L	NC	20
8258806	Dissolved Zirconium (Zr)	2016/05/05					<0.00010	mg/L	NC	20
8259080	Strong Acid Dissoc. Cyanide (CN)	2016/05/03	98	80 - 120	101	80 - 120	<0.00050	mg/L	0	20
8259098	Weak Acid Dissoc. Cyanide (CN)	2016/05/03	100	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8259199	Fluoride (F)	2016/05/03	101	80 - 120	100	80 - 120	<0.010	mg/L	0	20
8259319	Dissolved Phosphorus (P)	2016/05/03	NC	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8259332	Total Phosphorus (P)	2016/05/03	101	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8259652	Dissolved Chloride (Cl)	2016/05/03			101	80 - 120	<0.50	mg/L		
8259654	Dissolved Sulphate (SO4)	2016/05/03			98	80 - 120	<0.50	mg/L	0.49	20
8260078	Total Aluminum (Al)	2016/05/05	NC	80 - 120	102	80 - 120	<0.0030	mg/L	2.4	20
8260078	Total Antimony (Sb)	2016/05/05	101	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8260078	Total Arsenic (As)	2016/05/05	107	80 - 120	99	80 - 120	<0.000020	mg/L	7.4	20
8260078	Total Barium (Ba)	2016/05/05	NC	80 - 120	104	80 - 120	<0.00010	mg/L	1.9	20
8260078	Total Beryllium (Be)	2016/05/05	96	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
8260078	Total Bismuth (Bi)	2016/05/05	92	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
8260078	Total Boron (B)	2016/05/05	90	80 - 120	95	80 - 120	<0.050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8260078	Total Cadmium (Cd)	2016/05/05	106	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8260078	Total Chromium (Cr)	2016/05/05	100	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8260078	Total Cobalt (Co)	2016/05/05	101	80 - 120	102	80 - 120	<0.000010	mg/L	0	20
8260078	Total Copper (Cu)	2016/05/05	100	80 - 120	104	80 - 120	<0.00020	mg/L	2.8	20
8260078	Total Iron (Fe)	2016/05/05	NC	80 - 120	110	80 - 120	<0.0050	mg/L	0.28	20
8260078	Total Lead (Pb)	2016/05/05	103	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8260078	Total Lithium (Li)	2016/05/05	109	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
8260078	Total Manganese (Mn)	2016/05/05	105	80 - 120	101	80 - 120	<0.00010	mg/L	1.6	20
8260078	Total Molybdenum (Mo)	2016/05/05	104	80 - 120	94	80 - 120	<0.000050	mg/L	NC	20
8260078	Total Nickel (Ni)	2016/05/05	99	80 - 120	102	80 - 120	<0.00010	mg/L	0.86	20
8260078	Total Phosphorus (P)	2016/05/05					<0.010	mg/L	NC	20
8260078	Total Selenium (Se)	2016/05/05	104	80 - 120	102	80 - 120	<0.000040	mg/L	NC	20
8260078	Total Silicon (Si)	2016/05/05					<0.10	mg/L	0.84	20
8260078	Total Silver (Ag)	2016/05/05	91	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
8260078	Total Strontium (Sr)	2016/05/05	NC	80 - 120	98	80 - 120	<0.000050	mg/L	0.59	20
8260078	Total Thallium (Tl)	2016/05/05	85	80 - 120	91	80 - 120	<0.0000020	mg/L	NC	20
8260078	Total Tin (Sn)	2016/05/05	86	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8260078	Total Titanium (Ti)	2016/05/05	103	80 - 120	96	80 - 120	<0.0050	mg/L	NC	20
8260078	Total Uranium (U)	2016/05/05	NC	80 - 120	100	80 - 120	<0.0000050	mg/L	0.53	20
8260078	Total Vanadium (V)	2016/05/05	103	80 - 120	105	80 - 120	<0.00050	mg/L	NC	20
8260078	Total Zinc (Zn)	2016/05/05	101	80 - 120	114	80 - 120	<0.0010	mg/L	NC	20
8260078	Total Zirconium (Zr)	2016/05/05					<0.00010	mg/L	NC	20
8260360	Strong Acid Dissoc. Cyanide (CN)	2016/05/04	95	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8260411	Total Ammonia (N)	2016/05/04	NC	80 - 120	98	80 - 120	<0.0050	mg/L	0.72	20
8260916	Dissolved Mercury (Hg)	2016/05/05	96	80 - 120	108	80 - 120	<0.010	ug/L	NC	20
8260922	Total Mercury (Hg)	2016/05/05	95	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8264903	Bromide (Br)	2016/05/10	NC	78 - 120	104	80 - 120	<0.010	mg/L	1.5	20
8266701	Dissolved Phosphorus (P)	2016/05/11			102	80 - 120	<0.0020	mg/L		

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Maxxam Job #: B632583
Report Date: 2016/05/12

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8266703	Total Phosphorus (P)	2016/05/11			104	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

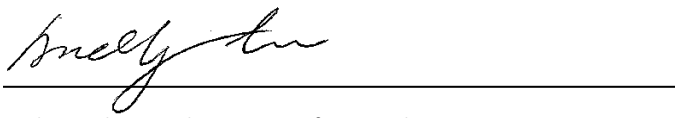
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Maxxam Job #: B632583
Report Date: 2016/05/12

YUKON ZINC CORPORATION

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

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Maxxam Analytics Inc

4606 Canada Way
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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

08420470

LAB USE ONLY
MAXXAM JOB #: B632583

ANALYSIS REQUE

COMPANY NAME: Yukon Zinc Corporation	CLIENT PROJECT NO.:
COMPANY ADDRESS: #701-475 Howe Street, Vancouver, BC, V6C 2B3	TEL.: 604-638-0921 Ex.5022 E-MAIL: YZC Group FAX: 604-682-5404
SAMPLER NAME (PRINT): Kevin Arnold	PROJECT MANAGER: Malcom Swallow/Alex Wu
LABORATORY CONTACT: Graham Rudkin	

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE (dd/mm/yy)	TIME	# CONTAINERS	Package A including:	EC, Alk, Acidity, pH, turbidity, temperature	Total/Diss. Phosphate, SO4, PO4	Ammonia, N02, N03, F, Cl, Br	DOC	Cyanide (Total and WAD)	LL Total Metals (inc. P, Hg)	LL Dissolved Metals (inc. P, Hg)	Hardness	TDS, TSS
1	L1			X							X	X	X	X	X	X	X	X	X	X
2	W9			X							X	X	X	X	X	X	X	X	X	X
3	W22			X				04/25/16	09:13		X	X	X	X	X	X	X	X	X	X
4	W31			X				~~04/25/16~~	~~10:02~~		X	X	X	X	X	X	X	X	X	X
5	W71			X				04/25/16	10:02		X	X	X	X	X	X	X	X	X	X
6	W72			X				04/29/16	10:05		X	X	X	X	X	X	X	X	X	X
7	W73			X				04/25/16	10:24		X	X	X	X	X	X	X	X	X	X
8	W80			X							X	X	X	X	X	X	X	X	X	X
9	W82			X							X	X	X	X	X	X	X	X	X	X
10	T1			X				04/25/16	14:53		X	X	X	X	X	X	X	X	X	X
11	T2		X					" "	15:05		X	X	X	X	X	X	X	X	X	X
13	T3		X					" "	15:41		X	X	X	X	X	X	X	X	X	X
14																				
15																				
16																				
17																				

B632583_COC

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD	5 BUSINESS DAYS	X
RUSH	3 BUSINESS DAYS	
RUSH	2 BUSINESS DAYS	
URGENT	1 BUSINESS DAY	

OTHER BUSINESS DAYS

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER: n/a

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT:

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

CCME
CSR
AB TIER 1
OTHER

JARS USED:

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 4.5 5 CS:NA
DUE DATE LOG IN CHECK:

	DATE: DD/MM/YY	TIME:
RELINQUINSHED BY SAMPLER:	28/04/16	0800
RELINQUINSHED BY:		
RELINQUINSHED BY:		

RECEIVED BY:
RECEIVED BY:
RECEIVED BY LABORATORY: Laurel Berthier 2016/04/29 10:00

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Site Location: WOLVERINE MINE
Your C.O.C. #: 08420471

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/05/17
Report #: R2182629
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B632596
Received: 2016/04/29, 10:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	1	N/A	2016/05/11	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	1	2016/05/11	2016/05/11	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	1	N/A	2016/05/11	BBY6SOP-00011	SM 22 4500-Cl- G m
Conductance - water	1	N/A	2016/05/11	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	1	N/A	2016/05/11	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2016/05/17	BBY7SOP-00002	EPA 6020a R1 m
Bromide as Bromine (Br) by ICPMS	1	N/A	2016/05/17	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2016/05/17	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	1	N/A	2016/05/11	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Unpreserved)	1	N/A	2016/05/11	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	1	N/A	2016/05/11	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	1	N/A	2016/05/11	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	1	N/A	2016/05/17	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	1	N/A	2016/05/11	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	1	N/A	2016/05/11	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	1	N/A	2016/05/11	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	1	N/A	2016/05/11	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	1	2016/05/11	2016/05/12	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	1	2016/05/11	2016/05/11	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	1	2016/05/11	2016/05/12	BBY6SOP-00034	SM 22 2540 D
Turbidity	1	N/A	2016/05/11	BBY6SOP-00027	SM 22 2130 B m

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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

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Site Location: WOLVERINE MINE
Your C.O.C. #: 08420471

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/05/17
Report #: R2182629
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B632596
Received: 2016/04/29, 10:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B632596
Report Date: 2016/05/17

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		ON7538		
Sampling Date		2016/04/25 13:32		
COC Number		08420471		
	UNITS	MW05-5A	RDL	QC Batch
Misc. Inorganics				
Fluoride (F)	mg/L	2.10	0.010	8266850
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.20	8265764
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	256	0.50	8265069
Acidity (pH 4.5)	mg/L	<0.50	0.50	8266209
Alkalinity (Total as CaCO3)	mg/L	232	0.50	8266387
Acidity (pH 8.3)	mg/L	5.21	0.50	8266209
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8266387
Bicarbonate (HCO3)	mg/L	284	0.50	8266387
Carbonate (CO3)	mg/L	<0.50	0.50	8266387
Hydroxide (OH)	mg/L	<0.50	0.50	8266387
Anions				
Orthophosphate (P)	mg/L	0.016	0.0010	8266335
Dissolved Sulphate (SO4)	mg/L	36.9	0.50	8266831
Dissolved Chloride (Cl)	mg/L	0.89	0.50	8266829
Nutrients				
Dissolved Phosphorus (P)	mg/L	0.0154	0.0020	8266699
Total Ammonia (N)	mg/L	0.0789 (1)	0.0050	8266223
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.20	8266870
Nitrite (N)	mg/L	<0.20 (2)	0.20	8266871
Physical Properties				
Conductivity	uS/cm	489	1.0	8266384
pH	pH	7.88		8266382
Physical Properties				
Total Suspended Solids	mg/L	<4.0 (3)	4.0	8266465
Total Dissolved Solids	mg/L	310 (3)	10	8266170
Turbidity	NTU	9.83 (1)	0.10	8266230

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.
(3) Sample analysed past recommended hold time.

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Maxxam Job #: B632596
Report Date: 2016/05/17

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7538		
Sampling Date		2016/04/25 13:32		
COC Number		08420471		
	UNITS	MW05-5A	RDL	QC Batch
ANIONS				
Bromide (Br)	mg/L	<0.010	0.010	8271396
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.00534	0.00050	8265346
Dissolved Antimony (Sb)	mg/L	0.00433	0.000020	8265346
Dissolved Arsenic (As)	mg/L	0.00532	0.000020	8265346
Dissolved Barium (Ba)	mg/L	0.0485	0.000020	8265346
Dissolved Beryllium (Be)	mg/L	0.000023	0.000010	8265346
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8265346
Dissolved Boron (B)	mg/L	<0.010	0.010	8265346
Dissolved Cadmium (Cd)	mg/L	0.000118	0.0000050	8265346
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	8265346
Dissolved Cobalt (Co)	mg/L	0.000320	0.0000050	8265346
Dissolved Copper (Cu)	mg/L	0.00502	0.000050	8265346
Dissolved Iron (Fe)	mg/L	1.14	0.0010	8265346
Dissolved Lead (Pb)	mg/L	0.000777	0.0000050	8265346
Dissolved Lithium (Li)	mg/L	0.00277	0.00050	8265346
Dissolved Manganese (Mn)	mg/L	0.0955	0.000050	8265346
Dissolved Molybdenum (Mo)	mg/L	0.00681	0.000050	8265346
Dissolved Nickel (Ni)	mg/L	0.00212	0.000020	8265346
Dissolved Phosphorus (P)	mg/L	0.0214	0.0020	8265346
Dissolved Selenium (Se)	mg/L	0.000158	0.000040	8265346
Dissolved Silicon (Si)	mg/L	3.90	0.050	8265346
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8265346
Dissolved Strontium (Sr)	mg/L	0.124	0.000050	8265346
Dissolved Thallium (Tl)	mg/L	0.0000090	0.0000020	8265346
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8265346
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8265346
Dissolved Uranium (U)	mg/L	0.0262	0.0000020	8265346
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8265346
Dissolved Zinc (Zn)	mg/L	0.0838	0.00010	8265346
Dissolved Zirconium (Zr)	mg/L	0.00059	0.00010	8265346
Dissolved Calcium (Ca)	mg/L	65.7	0.050	8265147
Dissolved Magnesium (Mg)	mg/L	22.3	0.050	8265147
RDL = Reportable Detection Limit				

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Maxxam Job #: B632596
Report Date: 2016/05/17

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		ON7538		
Sampling Date		2016/04/25 13:32		
COC Number		08420471		
	UNITS	**MW05-5A**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	1.68	0.050	8265147
Dissolved Sodium (Na)	mg/L	0.317	0.050	8265147
Dissolved Sulphur (S)	mg/L	12.8	3.0	8265147
RDL = Reportable Detection Limit				

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Maxxam Job #: B632596
Report Date: 2016/05/17

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B632596
Report Date: 2016/05/17

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8265346	Dissolved Aluminum (Al)	2016/05/10	98	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8265346	Dissolved Antimony (Sb)	2016/05/10	99	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
8265346	Dissolved Arsenic (As)	2016/05/10	102	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8265346	Dissolved Barium (Ba)	2016/05/10	100	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8265346	Dissolved Beryllium (Be)	2016/05/10	98	80 - 120	98	80 - 120	<0.000010	mg/L	NC	20
8265346	Dissolved Bismuth (Bi)	2016/05/10	98	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
8265346	Dissolved Boron (B)	2016/05/10	104	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
8265346	Dissolved Cadmium (Cd)	2016/05/10	115	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8265346	Dissolved Chromium (Cr)	2016/05/10	96	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8265346	Dissolved Cobalt (Co)	2016/05/10	99	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8265346	Dissolved Copper (Cu)	2016/05/10	98	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8265346	Dissolved Iron (Fe)	2016/05/10	105	80 - 120	109	80 - 120	<0.0010	mg/L	NC	20
8265346	Dissolved Lead (Pb)	2016/05/10	99	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8265346	Dissolved Lithium (Li)	2016/05/10	94	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8265346	Dissolved Manganese (Mn)	2016/05/10	99	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8265346	Dissolved Molybdenum (Mo)	2016/05/10	96	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20
8265346	Dissolved Nickel (Ni)	2016/05/10	99	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8265346	Dissolved Phosphorus (P)	2016/05/10					<0.0020	mg/L	NC	20
8265346	Dissolved Selenium (Se)	2016/05/10	100	80 - 120	97	80 - 120	<0.000040	mg/L	NC	20
8265346	Dissolved Silicon (Si)	2016/05/10					<0.050	mg/L	NC	20
8265346	Dissolved Silver (Ag)	2016/05/10	101	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8265346	Dissolved Strontium (Sr)	2016/05/10	97	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8265346	Dissolved Thallium (Tl)	2016/05/10	107	80 - 120	108	80 - 120	<0.0000020	mg/L	NC	20
8265346	Dissolved Tin (Sn)	2016/05/10	102	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8265346	Dissolved Titanium (Ti)	2016/05/10	98	80 - 120	94	80 - 120	<0.00050	mg/L	NC	20
8265346	Dissolved Uranium (U)	2016/05/10	99	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
8265346	Dissolved Vanadium (V)	2016/05/10	96	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8265346	Dissolved Zinc (Zn)	2016/05/10	108	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20
8265346	Dissolved Zirconium (Zr)	2016/05/10					<0.00010	mg/L	NC	20
8266170	Total Dissolved Solids	2016/05/12	103	80 - 120	96	80 - 120	16, RDL=10	mg/L	3.0	20
8266209	Acidity (pH 4.5)	2016/05/11					<0.50	mg/L	NC	20
8266209	Acidity (pH 8.3)	2016/05/11			98	80 - 120	<0.50	mg/L	3.1	20

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Maxxam Job #: B632596
Report Date: 2016/05/17

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8266223	Total Ammonia (N)	2016/05/11	98	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20
8266230	Turbidity	2016/05/11			106	80 - 120	<0.10	NTU	NC	20
8266335	Orthophosphate (P)	2016/05/11	87	80 - 120	97	80 - 120	<0.0010	mg/L	7.0	20
8266382	pH	2016/05/11			102	97 - 103			0.25	N/A
8266384	Conductivity	2016/05/11			100	80 - 120	<1.0	uS/cm	0.23	20
8266387	Alkalinity (PP as CaCO3)	2016/05/11					<0.50	mg/L	NC	20
8266387	Alkalinity (Total as CaCO3)	2016/05/11	NC	80 - 120	97	80 - 120	<0.50	mg/L	0.54	20
8266387	Bicarbonate (HCO3)	2016/05/11					<0.50	mg/L	0.54	20
8266387	Carbonate (CO3)	2016/05/11					<0.50	mg/L	NC	20
8266387	Hydroxide (OH)	2016/05/11					<0.50	mg/L	NC	20
8266465	Total Suspended Solids	2016/05/12	108	80 - 120	100	80 - 120	<4.0	mg/L	NC	20
8266699	Dissolved Phosphorus (P)	2016/05/11	103	80 - 120	101	80 - 120	<0.0020	mg/L	15	20
8266829	Dissolved Chloride (Cl)	2016/05/11			105	80 - 120	0.57, RDL=0.50	mg/L		
8266831	Dissolved Sulphate (SO4)	2016/05/11			100	80 - 120	0.52, RDL=0.50	mg/L		
8266850	Fluoride (F)	2016/05/11	80	80 - 120	98	80 - 120	<0.010	mg/L		
8266870	Nitrate plus Nitrite (N)	2016/05/11			104	80 - 120	<0.0020	mg/L		
8266871	Nitrite (N)	2016/05/11			94	80 - 120	<0.0020	mg/L		
8271396	Bromide (Br)	2016/05/17	96	78 - 120	97	80 - 120	<0.010	mg/L	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

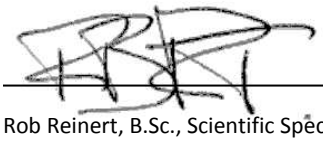
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B632596
Report Date: 2016/05/17

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

VALIDATION SIGNATURE PAGE

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



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY RE(

COC #

08420471

BBY FCD-00077/05

Invoice Information	Report Information (if differs from invoice)	Project Information (where	Turnaround Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name: Yukon Zinc Corporation	Quotation #:	☐ Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name: Alex Wu	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 West Georgia Street	Address: 705 - 1030 West Georgia Street	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC: V6E 2Y3	Vancouver PC: V6E 2Y3	Site Location: Wolverine Mine	☐ Same Day ☐ 2 Days
Phone: 604-684-5474	Phone: 604-684-5474	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC GROUP	Sampled By:	Date Required:

Regulatory Criteria	Special Instructions	Rush Confirmation #:
☐ BC CSR Soil ☐ BC CSR Water	☐ Return Cooler	
☐ CCME (Specify) ☐ Other (Specify)	☐ Ship Sample Bottles (Please Specify)	
☐ Drinking Water ☐ BC Water Quality		

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	VOC/VPH	TEH	LEPH/HEPH	F2 - F4	Preserved?	Preserved?	Field Preserved?	Field Preserved?	Sulphate	COD	Alkalinity	Ammonia	BTEX/VPH	EPH	PAH	CCME-PHC	BTEX/ F1	MTBE	Filtered?	Filtered?	Dissolved Metals	Dissolved Mercury	Total Metals	Total Mercury	Fluoride	BOD	Conductivity	Nitrate	Chloride	TDS	pH	Nitrite	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COMMENTS
18	MW05-4B				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
19	MW05-5A		04/25/16	13:32	Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
20	MW05-5B				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
21	MW05-6A				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
22	MW05-6B				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
23	MW05-7B				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
24	MW05-8S				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
25	MW06-8M				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
26	MW06-8D				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
27	MW06-9S				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
28	MW06-9M				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
29	MW06-10S				Water					X		X		X	X	X	X									X		X		X	X	X	X	X	X	X	X			
30	MW06-10M				Water					X				X	X	X	X									X				X	X	X	X	X	X	X	X			
31	MW06-10D				Water					X				X	X	X	X									X				X	X	X	X	X	X	X	X			
32	MW06-11S				Water					X				X	X	X	X									X				X	X	X	X	X	X	X	X			
33	MW06-12S				Water					X				X	X	X	X									X				X	X	X	X	X	X	X	X			
34	MW06-13				Water					X				X	X	X	X									X				X	X	X	X	X	X	X	X			

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Arnaud	2016/04/28	0800	Laurel Bernier	2016/04/29	10:00

LABORATORY USE ONLY

CUSTODY SEAL: Y / N

COOLER TEMPERATURES: Present / Intact — 4.5 / 4.5

COOLING MEDIA PRESENT: Y / N

4,5,5

B632596_COC

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Success Through Science®

Your Project #: WOLVERINE MINE
Your C.O.C. #: 08421210

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/06/01
Report #: R2190100
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B639205
Received: 2016/05/20, 09:40

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	6	2016/05/21	2016/05/22	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	5	N/A	2016/05/20	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride by Automated Colourimetry	1	N/A	2016/05/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide SAD (strong acid dissociable)	3	N/A	2016/05/27	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	3	N/A	2016/05/27	BBY6SOP-00004	SM 22 4500-CN O m
Conductance - water	6	N/A	2016/05/22	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	6	N/A	2016/05/24	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	3	N/A	2016/05/27	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	6	N/A	2016/05/26	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2016/05/26	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	6	N/A	2016/05/26	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	3	2016/05/26	2016/05/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2016/05/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	6	N/A	2016/05/25	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	6	N/A	2016/05/20	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	6	N/A	2016/05/20	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	6	N/A	2016/05/21	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	6	N/A	2016/05/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	6	N/A	2016/05/22	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	5	N/A	2016/05/20	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2016/05/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	5	2016/05/20	2016/05/24	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2016/05/25	2016/05/26	BBY6SOP-00033	SM 22 2540 C m
Total Phosphorus	3	N/A	2016/05/25	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	3	N/A	2016/06/01	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	6	2016/05/20	2016/05/21	BBY6SOP-00034	SM 22 2540 D

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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: WOLVERINE MINE
Your C.O.C. #: 08421210

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/06/01
Report #: R2190100
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B639205
Received: 2016/05/20, 09:40

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
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Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OR1023			OR1024		OR1025		
Sampling Date		2016/05/17 13:45			2016/05/17 12:35		2016/05/17 12:30		
COC Number		08421210			08421210		08421210		
	UNITS	T1-1	RDL	QC Batch	MW05-5A	QC Batch	MW05-5B	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.190	0.010	8277119	2.10	8277119	0.210	0.010	8277119
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1320	0.50	8275075		8275075		0.50	8275075
Nitrate (N)	mg/L	<0.20	0.20	8275355	<0.20	8275355	<0.20	0.20	8275355
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.176	0.0050	8281267		8281267		0.0050	8281267
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.0114	0.00050	8281274		8281274		0.00050	8281274
Dissolved Hardness (CaCO3)	mg/L	1370	0.50	8275118	260	8275118	146	0.50	8275118
Alkalinity (Total as CaCO3)	mg/L	6.10	0.50	8276380	236	8276380	113	0.50	8276380
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8276380	4.08	8276380	<0.50	0.50	8276380
Bicarbonate (HCO3)	mg/L	7.44	0.50	8276380	278	8276380	138	0.50	8276380
Carbonate (CO3)	mg/L	<0.50	0.50	8276380	4.90	8276380	<0.50	0.50	8276380
Hydroxide (OH)	mg/L	<0.50	0.50	8276380	<0.50	8276380	<0.50	0.50	8276380
Anions									
Dissolved Sulphate (SO4)	mg/L	1450 (1)	5.0	8276193	36.2	8276193	47.6	0.50	8279362
Dissolved Chloride (Cl)	mg/L	420 (1)	5.0	8276191	0.63	8276191	0.80	0.50	8279360
Nutrients									
Total Ammonia (N)	mg/L	0.83	0.0050	8278876	0.087	8278878	0.021	0.0050	8278878
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.20	8276667	<0.20 (2)	8276667	<0.20 (2)	0.20	8276667
Nitrite (N)	mg/L	<0.20 (2)	0.20	8276669	<0.20 (2)	8276669	<0.20 (2)	0.20	8276669
Total Phosphorus (P)	mg/L	0.107	0.0020	8285330	0.0138	8278319	0.135	0.0020	8278319
Physical Properties									
Conductivity	uS/cm	2990	1.0	8276381	489	8276381	303	1.0	8276381
pH	pH	6.68		8276382	8.39	8276382	8.14		8276382
Physical Properties									
Total Suspended Solids	mg/L	<4.0	4.0	8276058	4.8	8276058	416	4.0	8276058
Total Dissolved Solids	mg/L	2510	10	8276098	258	8276098	152	10	8276098

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) RDL raised due to sample matrix interference.

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OR1026			OR1027			OR1028		
Sampling Date		2016/05/17 13:00			2016/05/17 13:45			2016/05/17 13:45		
COC Number		08421210			08421210			08421210		
	UNITS	MW06-11S	RDL	QC Batch	T1-2	RDL	QC Batch	T1-3	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	2.50	0.010	8277119	0.230	0.010	8277119	0.230	0.010	8277119
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L		0.50	8275075	1670	0.50	8275075	2120	0.50	8275075
Nitrate (N)	mg/L	<0.20	0.20	8275355	<0.20	0.20	8275355	<0.20	0.20	8275355
Misc. Inorganics										
Strong Acid Dissoc. Cyanide (CN)	mg/L		0.0050	8281267	0.222	0.0050	8281267	0.288	0.0050	8281267
Weak Acid Dissoc. Cyanide (CN)	mg/L		0.00050	8281274	0.0195	0.00050	8281274	0.0481	0.00050	8281274
Dissolved Hardness (CaCO3)	mg/L	222	0.50	8275118	1680	0.50	8275118	2010	0.50	8275118
Alkalinity (Total as CaCO3)	mg/L	193	0.50	8276380	1.29	0.50	8276380	5.21	0.50	8276380
Alkalinity (PP as CaCO3)	mg/L	3.08	0.50	8276380	<0.50	0.50	8276380	<0.50	0.50	8276380
Bicarbonate (HCO3)	mg/L	228	0.50	8276380	1.57	0.50	8276380	6.36	0.50	8276380
Carbonate (CO3)	mg/L	3.70	0.50	8276380	<0.50	0.50	8276380	<0.50	0.50	8276380
Hydroxide (OH)	mg/L	<0.50	0.50	8276380	<0.50	0.50	8276380	<0.50	0.50	8276380
Anions										
Dissolved Sulphate (SO4)	mg/L	39.1	0.50	8276193	1840 (1)	5.0	8276193	1850 (1)	5.0	8276193
Dissolved Chloride (Cl)	mg/L	0.64	0.50	8276191	590 (1)	5.0	8276191	680 (1)	5.0	8276191
Nutrients										
Total Ammonia (N)	mg/L	0.20	0.0050	8278876	0.82	0.0050	8278876	0.91 (1)	0.050	8278878
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.20	8276667	<0.20 (2)	0.20	8276667	<0.20 (2)	0.20	8276667
Nitrite (N)	mg/L	<0.20 (2)	0.20	8276669	<0.20 (2)	0.20	8276669	<0.20 (2)	0.20	8276669
Total Phosphorus (P)	mg/L	0.0460	0.0020	8278319	0.121	0.0020	8285330	0.190	0.0020	8285330
Physical Properties										
Conductivity	uS/cm	437	1.0	8276381	3720	1.0	8276381	3870	1.0	8276381
pH	pH	8.37		8276382	5.83		8276382	6.46		8276382
Physical Properties										
Total Suspended Solids	mg/L	<4.0	4.0	8276058	<4.0	4.0	8276058	<4.0	4.0	8276058
Total Dissolved Solids	mg/L	228	10	8276098	3280 (3)	10	8278374	3450	50	8276098

RDL = Reportable Detection Limit

N/A = Not Applicable

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

(2) RDL raised due to sample matrix interference.

(3) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OR1023	OR1024	OR1025	OR1026	OR1027		
Sampling Date		2016/05/17 13:45	2016/05/17 12:35	2016/05/17 12:30	2016/05/17 13:00	2016/05/17 13:45		
COC Number		08421210	08421210	08421210	08421210	08421210		
	UNITS	T1-1	MW05-5A	MW05-5B	MW06-11S	T1-2	RDL	QC Batch
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.0493	0.185	0.173	0.00471	0.0542	0.00050	8278378
Dissolved Antimony (Sb)	mg/L	0.0432	0.00173	0.000362	0.000056	0.0566	0.000020	8278378
Dissolved Arsenic (As)	mg/L	0.00916	0.00425	0.00272	0.00345	0.00989	0.000020	8278378
Dissolved Barium (Ba)	mg/L	0.0732	0.0827	0.0703	0.0429	0.100	0.000020	8278378
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000024	0.000034	<0.000010	<0.000010	0.000010	8278378
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000360	<0.0000050	<0.0000050	<0.0000050	0.0000050	8278378
Dissolved Boron (B)	mg/L	0.011	<0.010	<0.010	<0.010	0.014	0.010	8278378
Dissolved Cadmium (Cd)	mg/L	0.0125	0.000241	0.00208	<0.0000050	0.0113	0.0000050	8278378
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00187	0.00083	<0.00010	0.00014	0.00010	8278378
Dissolved Cobalt (Co)	mg/L	0.00170	0.000494	0.00449	0.000200	0.00178	0.0000050	8278378
Dissolved Copper (Cu)	mg/L	0.454	0.00520	0.00885	0.000546	0.550	0.000050	8278378
Dissolved Iron (Fe)	mg/L	0.451	3.56	0.601	0.0640	0.426	0.0010	8278378
Dissolved Lead (Pb)	mg/L	0.161	0.00856	0.0121	0.000172	0.231	0.0000050	8278378
Dissolved Lithium (Li)	mg/L	0.0117	0.00532	0.00169	0.00274	0.0151	0.00050	8278378
Dissolved Manganese (Mn)	mg/L	0.282	0.257	0.905	0.114	0.313	0.000050	8278378
Dissolved Molybdenum (Mo)	mg/L	0.0712	0.00828	0.00138	0.0133	0.0896	0.000050	8278378
Dissolved Nickel (Ni)	mg/L	0.00678	0.00379	0.0291	0.000195	0.00684	0.000020	8278378
Dissolved Phosphorus (P)	mg/L	0.123	0.158	0.0798	<0.0020	0.130	0.0020	8278378
Dissolved Selenium (Se)	mg/L	1.75	0.000336	0.000316	0.000050	2.17	0.000040	8278378
Dissolved Silicon (Si)	mg/L	1.69	4.57	4.09	6.80	2.08	0.050	8278378
Dissolved Silver (Ag)	mg/L	0.00514	<0.0000050	<0.0000050	<0.0000050	0.00320	0.0000050	8278378
Dissolved Strontium (Sr)	mg/L	2.32	0.140	0.115	0.119	2.95	0.000050	8278378
Dissolved Thallium (Tl)	mg/L	0.00109	0.0000100	0.0000270	<0.0000020	0.00129	0.0000020	8278378
Dissolved Tin (Sn)	mg/L	<0.00020	0.00022	<0.00020	<0.00020	<0.00020	0.00020	8278378
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00505	0.00086	<0.00050	<0.00050	0.00050	8278378
Dissolved Uranium (U)	mg/L	0.000463	0.0174	0.00450	0.00510	0.000613	0.0000020	8278378
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8278378
Dissolved Zinc (Zn)	mg/L	1.16	0.0565	0.494	0.00186	1.05	0.00010	8278378
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00071	0.00017	0.00012	<0.00010	0.00010	8278378
Dissolved Calcium (Ca)	mg/L	547	68.3	46.6	59.9	671	0.050	8275119
Dissolved Magnesium (Mg)	mg/L	2.06	21.8	7.13	17.7	2.14	0.050	8275119
Dissolved Potassium (K)	mg/L	42.4	1.59	0.679	1.63	56.8	0.050	8275119
Dissolved Sodium (Na)	mg/L	152	1.91	1.22	3.66	203	0.050	8275119

RDL = Reportable Detection Limit

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OR1023	OR1024	OR1025	OR1026	OR1027		
Sampling Date		2016/05/17 13:45	2016/05/17 12:35	2016/05/17 12:30	2016/05/17 13:00	2016/05/17 13:45		
COC Number		08421210	08421210	08421210	08421210	08421210		
	UNITS	T1-1	MW05-5A	MW05-5B	MW06-11S	T1-2	RDL	QC Batch
Dissolved Sulphur (S)	mg/L	750	10.2	12.9	12.1	948	3.0	8275119
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0666				0.0616	0.0030	8279986
Total Antimony (Sb)	mg/L	0.0465				0.0556	0.000050	8279986
Total Arsenic (As)	mg/L	0.00939				0.00980	0.000020	8279986
Total Barium (Ba)	mg/L	0.0804				0.120	0.00010	8279986
Total Beryllium (Be)	mg/L	<0.000010				<0.000010	0.000010	8279986
Total Bismuth (Bi)	mg/L	<0.000020				0.000024	0.000020	8279986
Total Boron (B)	mg/L	<0.050				<0.050	0.050	8279986
Total Cadmium (Cd)	mg/L	0.0125				0.0107	0.0000050	8279986
Total Chromium (Cr)	mg/L	<0.00050				<0.00050	0.00050	8279986
Total Cobalt (Co)	mg/L	0.00178				0.00180	0.000010	8279986
Total Copper (Cu)	mg/L	0.520				0.597	0.00020	8279986
Total Iron (Fe)	mg/L	0.462				0.436	0.0050	8279986
Total Lead (Pb)	mg/L	0.181				0.248	0.000050	8279986
Total Lithium (Li)	mg/L	0.0110				0.0135	0.00050	8279986
Total Manganese (Mn)	mg/L	0.293				0.314	0.00010	8279986
Total Molybdenum (Mo)	mg/L	0.0927				0.0953	0.000050	8279986
Total Nickel (Ni)	mg/L	0.00725				0.00696	0.00010	8279986
Total Selenium (Se)	mg/L	1.75				2.02	0.000040	8279986
Total Silicon (Si)	mg/L	1.71				1.97	0.10	8279986
Total Silver (Ag)	mg/L	0.00746				0.00629	0.0000050	8279986
Total Strontium (Sr)	mg/L	2.25				2.86	0.000050	8279986
Total Thallium (Tl)	mg/L	0.00107				0.00143	0.0000020	8279986
Total Tin (Sn)	mg/L	<0.00020				<0.00020	0.00020	8279986
Total Titanium (Ti)	mg/L	<0.0050				<0.0050	0.0050	8279986
Total Uranium (U)	mg/L	0.000626				0.000915	0.0000050	8279986
Total Vanadium (V)	mg/L	<0.00050				<0.00050	0.00050	8279986
Total Zinc (Zn)	mg/L	1.22				1.07	0.0010	8279986
Total Zirconium (Zr)	mg/L	<0.00010				<0.00010	0.00010	8279986
Total Calcium (Ca)	mg/L	523				664	0.25	8275076
Total Magnesium (Mg)	mg/L	2.26				2.25	0.25	8275076
Total Potassium (K)	mg/L	44.6				57.5	0.25	8275076
Total Sodium (Na)	mg/L	163				208	0.25	8275076

RDL = Reportable Detection Limit

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OR1023	OR1024	OR1025	OR1026	OR1027		
Sampling Date		2016/05/17 13:45	2016/05/17 12:35	2016/05/17 12:30	2016/05/17 13:00	2016/05/17 13:45		
COC Number		08421210	08421210	08421210	08421210	08421210		
	UNITS	**T1-1**	**MW05-5A**	**MW05-5B**	**MW06-11S**	**T1-2**	**RDL**	**QC Batch**
Total Sulphur (S)	mg/L	717				902	15	8275076
RDL = Reportable Detection Limit								

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OR1028		
Sampling Date		2016/05/17 13:45		
COC Number		08421210		
	UNITS	T1-3	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0579	0.00050	8278378
Dissolved Antimony (Sb)	mg/L	0.0546	0.000020	8278378
Dissolved Arsenic (As)	mg/L	0.00909	0.000020	8278378
Dissolved Barium (Ba)	mg/L	0.108	0.000020	8278378
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8278378
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8278378
Dissolved Boron (B)	mg/L	0.014	0.010	8278378
Dissolved Cadmium (Cd)	mg/L	0.00597	0.0000050	8278378
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	8278378
Dissolved Cobalt (Co)	mg/L	0.00121	0.0000050	8278378
Dissolved Copper (Cu)	mg/L	0.844	0.000050	8278378
Dissolved Iron (Fe)	mg/L	0.407	0.0010	8278378
Dissolved Lead (Pb)	mg/L	0.235	0.0000050	8278378
Dissolved Lithium (Li)	mg/L	0.0151	0.00050	8278378
Dissolved Manganese (Mn)	mg/L	0.153	0.000050	8278378
Dissolved Molybdenum (Mo)	mg/L	0.128	0.000050	8278378
Dissolved Nickel (Ni)	mg/L	0.00619	0.000020	8278378
Dissolved Phosphorus (P)	mg/L	0.177	0.0020	8278378
Dissolved Selenium (Se)	mg/L	2.85	0.000040	8278378
Dissolved Silicon (Si)	mg/L	1.71	0.050	8278378
Dissolved Silver (Ag)	mg/L	0.000781	0.0000050	8278378
Dissolved Strontium (Sr)	mg/L	3.39	0.000050	8278378
Dissolved Thallium (Tl)	mg/L	0.00112	0.0000020	8278378
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8278378
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8278378
Dissolved Uranium (U)	mg/L	0.000438	0.0000020	8278378
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8278378
Dissolved Zinc (Zn)	mg/L	0.635	0.00010	8278378
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8278378
Dissolved Calcium (Ca)	mg/L	803	0.050	8275119
Dissolved Magnesium (Mg)	mg/L	1.59	0.050	8275119
Dissolved Potassium (K)	mg/L	64.4	0.050	8275119
Dissolved Sodium (Na)	mg/L	234	0.050	8275119
RDL = Reportable Detection Limit				

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OR1028		
Sampling Date		2016/05/17 13:45		
COC Number		08421210		
	UNITS	T1-3	RDL	QC Batch
Dissolved Sulphur (S)	mg/L	1170	3.0	8275119
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.0647	0.0030	8279986
Total Antimony (Sb)	mg/L	0.0568	0.000050	8279986
Total Arsenic (As)	mg/L	0.0101	0.000020	8279986
Total Barium (Ba)	mg/L	0.148	0.00010	8279986
Total Beryllium (Be)	mg/L	0.000012	0.000010	8279986
Total Bismuth (Bi)	mg/L	0.000036	0.000020	8279986
Total Boron (B)	mg/L	<0.050	0.050	8279986
Total Cadmium (Cd)	mg/L	0.00639	0.0000050	8279986
Total Chromium (Cr)	mg/L	<0.00050	0.00050	8279986
Total Cobalt (Co)	mg/L	0.00137	0.000010	8279986
Total Copper (Cu)	mg/L	0.931	0.00020	8279986
Total Iron (Fe)	mg/L	0.423	0.0050	8279986
Total Lead (Pb)	mg/L	0.267	0.000050	8279986
Total Lithium (Li)	mg/L	0.0172	0.00050	8279986
Total Manganese (Mn)	mg/L	0.171	0.00010	8279986
Total Molybdenum (Mo)	mg/L	0.125	0.000050	8279986
Total Nickel (Ni)	mg/L	0.00685	0.00010	8279986
Total Selenium (Se)	mg/L	2.49	0.000040	8279986
Total Silicon (Si)	mg/L	1.88	0.10	8279986
Total Silver (Ag)	mg/L	0.00428	0.0000050	8279986
Total Strontium (Sr)	mg/L	3.73	0.000050	8279986
Total Thallium (Tl)	mg/L	0.00134	0.0000020	8279986
Total Tin (Sn)	mg/L	<0.00020	0.00020	8279986
Total Titanium (Ti)	mg/L	<0.0050	0.0050	8279986
Total Uranium (U)	mg/L	0.000658	0.0000050	8279986
Total Vanadium (V)	mg/L	<0.00050	0.00050	8279986
Total Zinc (Zn)	mg/L	0.707	0.0010	8279986
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	8279986
Total Calcium (Ca)	mg/L	846	0.25	8275076
Total Magnesium (Mg)	mg/L	1.72	0.25	8275076
Total Potassium (K)	mg/L	67.4	0.25	8275076
Total Sodium (Na)	mg/L	259	0.25	8275076
RDL = Reportable Detection Limit				

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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OR1028		
Sampling Date		2016/05/17 13:45		
COC Number		08421210		
	UNITS	**T1-3**	**RDL**	**QC Batch**
Total Sulphur (S)	mg/L	978	15	8275076
RDL = Reportable Detection Limit				

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C

Results relate only to the items tested.

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Maxxam Job #: B639205
Report Date: 2016/06/01

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8276058	Total Suspended Solids	2016/05/21	111	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
8276098	Total Dissolved Solids	2016/05/24	99	80 - 120	92	80 - 120	<10	mg/L	2.4	20
8276191	Dissolved Chloride (Cl)	2016/05/20	111	80 - 120	97	80 - 120	<0.50	mg/L	NC	20
8276193	Dissolved Sulphate (SO4)	2016/05/20	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.79	20
8276380	Alkalinity (PP as CaCO3)	2016/05/21					<0.50	mg/L	NC	20
8276380	Alkalinity (Total as CaCO3)	2016/05/21	NC	80 - 120	100	80 - 120	0.90, RDL=0.50	mg/L	0.24	20
8276380	Bicarbonate (HCO3)	2016/05/21					1.10, RDL=0.50	mg/L	0.24	20
8276380	Carbonate (CO3)	2016/05/21					<0.50	mg/L	NC	20
8276380	Hydroxide (OH)	2016/05/21					<0.50	mg/L	NC	20
8276381	Conductivity	2016/05/21			100	80 - 120	<1.0	uS/cm	0.079	20
8276382	pH	2016/05/21			102	97 - 103			0.12	N/A
8276667	Nitrate plus Nitrite (N)	2016/05/20			108	80 - 120	<0.0020	mg/L		
8276669	Nitrite (N)	2016/05/20			98	80 - 120	<0.0020	mg/L		
8277119	Fluoride (F)	2016/05/24	96	80 - 120	102	80 - 120	0.011, RDL=0.010	mg/L	4.1	20
8278319	Total Phosphorus (P)	2016/05/25	96	80 - 120	105	80 - 120	<0.0020	mg/L		
8278374	Total Dissolved Solids	2016/05/26	101	80 - 120	84	80 - 120	<10	mg/L	NC	20
8278378	Dissolved Aluminum (Al)	2016/05/26	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8278378	Dissolved Antimony (Sb)	2016/05/26	102	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8278378	Dissolved Arsenic (As)	2016/05/26	104	80 - 120	105	80 - 120	<0.000020	mg/L	NC	20
8278378	Dissolved Barium (Ba)	2016/05/26	NC	80 - 120	105	80 - 120	<0.000020	mg/L	3.9	20
8278378	Dissolved Beryllium (Be)	2016/05/26	96	80 - 120	93	80 - 120	<0.000010	mg/L	NC	20
8278378	Dissolved Bismuth (Bi)	2016/05/26	100	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8278378	Dissolved Boron (B)	2016/05/26	98	80 - 120	94	80 - 120	<0.010	mg/L	NC	20
8278378	Dissolved Cadmium (Cd)	2016/05/26	105	80 - 120	105	80 - 120	<0.0000050	mg/L	4.8	20
8278378	Dissolved Chromium (Cr)	2016/05/26	99	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20
8278378	Dissolved Cobalt (Co)	2016/05/26	97	80 - 120	103	80 - 120	<0.0000050	mg/L	6.6	20
8278378	Dissolved Copper (Cu)	2016/05/26	92	80 - 120	105	80 - 120	<0.000050	mg/L	4.9	20
8278378	Dissolved Iron (Fe)	2016/05/26	111	80 - 120	112	80 - 120	<0.0010	mg/L	NC	20
8278378	Dissolved Lead (Pb)	2016/05/26	102	80 - 120	101	80 - 120	<0.0000050	mg/L	3.6	20
8278378	Dissolved Lithium (Li)	2016/05/26	97	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8278378	Dissolved Manganese (Mn)	2016/05/26	98	80 - 120	102	80 - 120	<0.000050	mg/L	3.9	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8278378	Dissolved Molybdenum (Mo)	2016/05/26	NC	80 - 120	98	80 - 120	<0.000050	mg/L	0.73	20
8278378	Dissolved Nickel (Ni)	2016/05/26	96	80 - 120	105	80 - 120	<0.000020	mg/L	5.8	20
8278378	Dissolved Phosphorus (P)	2016/05/26					<0.0020	mg/L	NC	20
8278378	Dissolved Selenium (Se)	2016/05/26	103	80 - 120	103	80 - 120	<0.000040	mg/L	1.2	20
8278378	Dissolved Silicon (Si)	2016/05/26					<0.050	mg/L	2.2	20
8278378	Dissolved Silver (Ag)	2016/05/26	119	80 - 120	106	80 - 120	0.0000070, RDL=0.0000050	mg/L	NC	20
8278378	Dissolved Strontium (Sr)	2016/05/26	NC	80 - 120	109	80 - 120	<0.000050	mg/L	9.2	20
8278378	Dissolved Thallium (Tl)	2016/05/26	90	80 - 120	105	80 - 120	<0.0000020	mg/L	NC	20
8278378	Dissolved Tin (Sn)	2016/05/26	104	80 - 120	104	80 - 120	<0.00020	mg/L	NC	20
8278378	Dissolved Titanium (Ti)	2016/05/26	101	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20
8278378	Dissolved Uranium (U)	2016/05/26	104	80 - 120	99	80 - 120	<0.0000020	mg/L	2.6	20
8278378	Dissolved Vanadium (V)	2016/05/26	102	80 - 120	103	80 - 120	0.00029, RDL=0.00020	mg/L	NC	20
8278378	Dissolved Zinc (Zn)	2016/05/26	NC	80 - 120	106	80 - 120	<0.00010	mg/L	4.9	20
8278378	Dissolved Zirconium (Zr)	2016/05/26					<0.00010	mg/L	NC	20
8278876	Total Ammonia (N)	2016/05/25	106	80 - 120	96	80 - 120	<0.0050	mg/L	NC	20
8278878	Total Ammonia (N)	2016/05/25	101	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20
8279360	Dissolved Chloride (Cl)	2016/05/25			104	80 - 120	<0.50	mg/L	NC	20
8279362	Dissolved Sulphate (SO4)	2016/05/25	111	80 - 120	99	80 - 120	<0.50	mg/L	NC	20
8279986	Total Aluminum (Al)	2016/05/27	NC	80 - 120	105	80 - 120	<0.0030	mg/L		
8279986	Total Antimony (Sb)	2016/05/27	102	80 - 120	102	80 - 120	<0.000050	mg/L		
8279986	Total Arsenic (As)	2016/05/27	104	80 - 120	102	80 - 120	<0.000020	mg/L		
8279986	Total Barium (Ba)	2016/05/27	NC	80 - 120	102	80 - 120	<0.00010	mg/L		
8279986	Total Beryllium (Be)	2016/05/27	102	80 - 120	101	80 - 120	<0.000010	mg/L		
8279986	Total Bismuth (Bi)	2016/05/27	99	80 - 120	102	80 - 120	<0.000020	mg/L		
8279986	Total Boron (B)	2016/05/27	97	80 - 120	98	80 - 120	<0.050	mg/L		
8279986	Total Cadmium (Cd)	2016/05/27	101	80 - 120	101	80 - 120	<0.0000050	mg/L		
8279986	Total Chromium (Cr)	2016/05/27	101	80 - 120	100	80 - 120	<0.00050	mg/L		
8279986	Total Cobalt (Co)	2016/05/27	100	80 - 120	101	80 - 120	<0.000010	mg/L		
8279986	Total Copper (Cu)	2016/05/27	98	80 - 120	113	80 - 120	<0.00020	mg/L		
8279986	Total Iron (Fe)	2016/05/27	NC	80 - 120	105	80 - 120	<0.0050	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8279986	Total Lead (Pb)	2016/05/27	105	80 - 120	103	80 - 120	<0.000050	mg/L		
8279986	Total Lithium (Li)	2016/05/27	98	80 - 120	100	80 - 120	<0.00050	mg/L		
8279986	Total Manganese (Mn)	2016/05/27	NC	80 - 120	102	80 - 120	<0.00010	mg/L		
8279986	Total Molybdenum (Mo)	2016/05/27	100	80 - 120	98	80 - 120	<0.000050	mg/L	1.2	20
8279986	Total Nickel (Ni)	2016/05/27	99	80 - 120	102	80 - 120	<0.00010	mg/L		
8279986	Total Selenium (Se)	2016/05/27	101	80 - 120	104	80 - 120	<0.000040	mg/L		
8279986	Total Silicon (Si)	2016/05/27					<0.10	mg/L		
8279986	Total Silver (Ag)	2016/05/27	111	80 - 120	107	80 - 120	<0.0000050	mg/L		
8279986	Total Strontium (Sr)	2016/05/27	NC	80 - 120	103	80 - 120	<0.000050	mg/L		
8279986	Total Thallium (Tl)	2016/05/27	88	80 - 120	86	80 - 120	0.0000020, RDL=0.0000020	mg/L		
8279986	Total Tin (Sn)	2016/05/27	91	80 - 120	104	80 - 120	<0.00020	mg/L		
8279986	Total Titanium (Ti)	2016/05/27	101	80 - 120	96	80 - 120	<0.0050	mg/L		
8279986	Total Uranium (U)	2016/05/27	103	80 - 120	98	80 - 120	<0.0000050	mg/L		
8279986	Total Vanadium (V)	2016/05/27	103	80 - 120	108	80 - 120	<0.00050	mg/L		
8279986	Total Zinc (Zn)	2016/05/27	NC	80 - 120	111	80 - 120	<0.0010	mg/L		
8279986	Total Zirconium (Zr)	2016/05/27					<0.00010	mg/L		
8281267	Strong Acid Dissoc. Cyanide (CN)	2016/05/27	101	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8281274	Weak Acid Dissoc. Cyanide (CN)	2016/05/27	112	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
8285330	Total Phosphorus (P)	2016/06/01			92	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

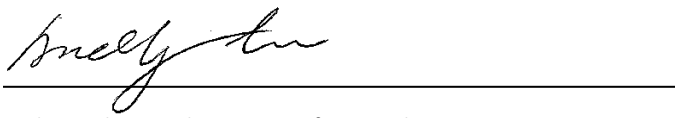
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Maxxam Job #: B639205
Report Date: 2016/06/01

YUKON ZINC CORPORATION
Client Project #: WOLVERINE MINE

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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

CHAIN OF CUSTODY

08421210

BBY FCD-00077/05

Page 1 of 1

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

KR

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name: Yukon Zinc Corporation	Quotation #:	☐ Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name: Alex Wu	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 West Georgia Street	Address: 705 - 1030 West Georgia Street	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC: V6E 2Y3	Vancouver PC: V6E 2Y3	Site Location: Wolverine Mine	☐ Same Day ☐ 2 Days
Phone: 604-684-5474	Phone: 604-684-5474	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC GROUP	Sampled By:	Date Required:

Regulatory Criteria

☐ BC CSR Soil ☐ BC CSR Water
☐ CCME (Specify) ☐ Other (Specify)
☐ Drinking Water ☐ BC Water Quality

Special Instructions

☐ Return Cooler
☐ Ship Sample Bottles (Please Specify)

Analysis Requested

Rush Confirmation #:

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	VOC/VPH	TEH	LEPH/HEPH	F2 - F4	Preserved?	Preserved?									# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
						MTBE			BTEX/ F1	Filtered?	Filtered?	Field Preserved?	Field Preserved?	Sulphate	COD	Alkalinity	Ammonia				
						BTEX/VPH	EPH	PAH	CCME-PHC	Dissolved Metals	Dissolved Mercury	Total Metals	Total Mercury	Fluoride	BOD	Conductivity	Nitrate				
														Chloride	TDS	pH	Nitrite				
1	T1 - 1				WATER					X		X		X	X	X	X				
2	MW05-5A				WATER					X				X	X	X	X				
3	MW05-5B				WATER					X				X	X	X	X				
4	MW06-11S				WATER					X				X	X	X	X				
5	T1-2				WATER					X				X	X	X	X				
6	T1-3				WATER					X				X	X	X	X				
7																					
8																					
9																					
10																					

LABORATORY USE ONLY

CUSTODY SEAL Y / N: Present: NA Intact: NA

COOLER TEMPERATURES: 5.5 S

COOLING MEDIA PRESENT: Y / N

COMMENTS:

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
			BILLO PUNI	2016/05/10	09:40	

B639205_COC

Site Location: WOLVERINE MINE
Your C.O.C. #: 08423526, 08423527

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/07/07
Report #: R2211894
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B645276
Received: 2016/06/08, 13:15

Sample Matrix: Water
Samples Received: 19

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	19	N/A	2016/06/28	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	18	2016/06/28	2016/06/29	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Water	1	2016/06/28	2016/06/30	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	19	N/A	2016/06/29	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide SAD (strong acid dissociable)	1	N/A	2016/06/29	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	1	N/A	2016/06/29	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	2	N/A	2016/06/29	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	19	N/A	2016/06/29	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	19	N/A	2016/06/29	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	2	N/A	2016/07/04	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	19	N/A	2016/07/04	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	19	N/A	2016/07/05	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	2	2016/07/04	2016/07/04	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Bromide as Bromine (Br) by ICPMS	19	N/A	2016/07/04	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	19	N/A	2016/07/04	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	19	N/A	2016/07/04	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2016/07/04	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	2	N/A	2016/07/01	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	19	N/A	2016/06/28	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	19	N/A	2016/06/28	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	19	N/A	2016/06/28	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	19	N/A	2016/06/29	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	17	N/A	2016/06/28	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	2	N/A	2016/06/29	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	19	N/A	2016/06/29	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	18	N/A	2016/06/28	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	1	N/A	2016/07/06	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	18	N/A	2016/06/29	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2016/06/30	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	19	2016/06/28	2016/06/29	BBY6SOP-00033	SM 22 2540 C m

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Site Location: WOLVERINE MINE
Your C.O.C. #: 08423526, 08423527

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/07/07
Report #: R2211894
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B645276
Received: 2016/06/08, 13:15

Sample Matrix: Water
Samples Received: 19

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Phosphorus-P (LL Tot, dissolved) - FF/FP	2	2016/06/29	2016/06/29	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	17	2016/06/29	2016/06/29	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	19	2016/06/28	2016/06/29	BBY6SOP-00034	SM 22 2540 D
Turbidity	19	N/A	2016/06/28	BBY6SOP-00027	SM 22 2130 B m

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) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B645276
Report Date: 2016/07/07

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1329		OU1330		OU1331	OU1332	OU1333		
Sampling Date		2016/06/06 13:38		2016/06/05 09:57		2016/06/06 09:19	2016/06/06 08:50	2016/06/06 11:23		
COC Number		08423526		08423526		08423526	08423526	08423526		
	UNITS	W31	QC Batch	W82	QC Batch	MW05-1A	MW05-1B	MW05-2A	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.025	8314700	0.200	8314700	0.480	0.150	0.240	0.010	8314700
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	FIELD	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	49.2	8313172	104	8313172				0.50	8313172
Nitrate (N)	mg/L	<0.20	8313576	<0.20	8313576	<0.20	<0.20	<0.20	0.20	8313576
Misc. Inorganics										
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8314577		8314577				0.00050	8314577
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00069	8314600		8314600				0.00050	8314600
Dissolved Hardness (CaCO3)	mg/L	47.9	8312901	105	8312901	128	102	199	0.50	8312901
Dissolved Organic Carbon (C)	mg/L	2.39	8314627	3.49	8314627				0.50	8314627
Acidity (pH 4.5)	mg/L	<0.50	8313819	<0.50	8313819	<0.50	<0.50	<0.50	0.50	8313819
Alkalinity (Total as CaCO3)	mg/L	48.5	8313636	65.5	8313809	102	97.8	169	0.50	8313809
Acidity (pH 8.3)	mg/L	<0.50	8313819	<0.50	8313819	<0.50	<0.50	<0.50	0.50	8313819
Alkalinity (PP as CaCO3)	mg/L	<0.50	8313636	<0.50	8313809	<0.50	2.54	2.11	0.50	8313809
Bicarbonate (HCO3)	mg/L	59.2	8313636	79.8	8313809	124	113	201	0.50	8313809
Carbonate (CO3)	mg/L	<0.50	8313636	<0.50	8313809	<0.50	3.05	2.53	0.50	8313809
Hydroxide (OH)	mg/L	<0.50	8313636	<0.50	8313809	<0.50	<0.50	<0.50	0.50	8313809
Anions										
Orthophosphate (P)	mg/L	<0.0010 (1)	8313885	0.0093 (2)	8321069	0.25 (1)	0.27 (1)	0.0083 (1)	0.0010	8313885
Dissolved Sulphate (SO4)	mg/L	6.40	8315295	36.5	8315295	22.3	5.88	28.5	0.50	8315295
Dissolved Chloride (Cl)	mg/L	0.74	8315293	1.2	8315293	0.80	<0.50	0.71	0.50	8315293
Nutrients										
Dissolved Phosphorus (P)	mg/L	<0.0020 (3)	8314993	0.0082	8314993	0.249 (1)	0.286 (1)	0.0084 (1)	0.0020	8315002
Total Ammonia (N)	mg/L	0.017	8313959	0.015	8313959	0.16	0.75	0.11	0.0050	8313368
Nitrate plus Nitrite (N)	mg/L	<0.20 (4)	8314093	<0.20 (5)	8314093	<0.20 (4)	<0.20 (4)	<0.20 (4)	0.20	8314093
Nitrite (N)	mg/L	<0.20 (4)	8314094	<0.20 (5)	8314094	<0.20 (4)	<0.20 (4)	<0.20 (4)	0.20	8314094

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past recommended hold time.

(2) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(3) Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results.

(4) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

(5) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B645276
Report Date: 2016/07/07

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1329		OU1330		OU1331	OU1332	OU1333		
Sampling Date		2016/06/06 13:38		2016/06/05 09:57		2016/06/06 09:19	2016/06/06 08:50	2016/06/06 11:23		
COC Number		08423526		08423526		08423526	08423526	08423526		
	UNITS	**W31**	**QC Batch**	**W82**	**QC Batch**	**MW05-1A**	**MW05-1B**	**MW05-2A**	**RDL**	**QC Batch**
Physical Properties										
Conductivity	uS/cm	101	8313514	213	8313808	251	200	372	1.0	8313808
pH	pH	7.92	8313510	8.08	8313807	8.27	8.45	8.35		8313807
Physical Properties										
Total Suspended Solids	mg/L	<4.0 (1)	8313668	<4.0 (1)	8313668	7.0 (1)	<4.0 (1)	<4.0 (1)	4.0	8313668
Total Dissolved Solids	mg/L	74 (1)	8313904	132 (1)	8313904	148 (1)	134 (1)	226 (1)	10	8313904
Turbidity	NTU	<0.10 (1)	8313434	1.05 (1)	8313434	12.5 (1)	0.42 (1)	8.13 (1)	0.10	8313434

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

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Maxxam Job #: B645276
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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1334		OU1335		OU1336		OU1337		
Sampling Date		2016/06/06 11:36		2016/06/05 13:28		2016/06/05 13:53		2016/06/05 15:53		
COC Number		08423526		08423526		08423526		08423526		
	UNITS	MW05-2B	QC Batch	MW05-3A	QC Batch	MW05-3B	QC Batch	MW05-4A	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.061	8314700	0.800	8314700	0.140	8314700	0.970	0.010	8314700
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8313576	<0.20	8313576	<0.20	8313576	<0.20	0.20	8313576
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	158	8312901	235	8312901	182	8312901	172	0.50	8312901
Acidity (pH 4.5)	mg/L	<0.50	8313819	<0.50	8313819	<0.50	8313819	<0.50	0.50	8313816
Alkalinity (Total as CaCO3)	mg/L	153	8313809	178	8313809	99.6	8313809	112	0.50	8313809
Acidity (pH 8.3)	mg/L	4.56	8313819	1.99	8313819	9.50	8313819	<0.50	0.50	8313816
Alkalinity (PP as CaCO3)	mg/L	<0.50	8313809	1.02	8313809	<0.50	8313809	<0.50	0.50	8313809
Bicarbonate (HCO3)	mg/L	186	8313809	215	8313809	121	8313809	136	0.50	8313809
Carbonate (CO3)	mg/L	<0.50	8313809	1.22	8313809	<0.50	8313809	<0.50	0.50	8313809
Hydroxide (OH)	mg/L	<0.50	8313809	<0.50	8313809	<0.50	8313809	<0.50	0.50	8313809
Anions										
Orthophosphate (P)	mg/L	0.0020 (1)	8313885	0.019 (2)	8313885	0.0010 (2)	8313885	0.0027 (2)	0.0010	8313885
Dissolved Sulphate (SO4)	mg/L	4.57	8315295	45.6	8315295	102	8315292	50.1	0.50	8315292
Dissolved Chloride (Cl)	mg/L	0.97	8315293	1.4	8315293	3.3	8315287	0.77	0.50	8315287
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.376 (1)	8315002	0.0166 (2)	8315002	<0.0020 (2)	8315002	0.0029 (2)	0.0020	8315002
Total Ammonia (N)	mg/L	0.027	8313368	0.11	8313959	0.016	8313959	0.096	0.0050	8313959
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8314093	<0.20 (4)	8314093	0.46 (4)	8314093	<0.20 (4)	0.20	8314093
Nitrite (N)	mg/L	<0.20 (3)	8314094	<0.20 (4)	8314094	0.34 (4)	8314094	<0.20 (4)	0.20	8314094
Physical Properties										
Conductivity	uS/cm	301	8313808	432	8313808	407	8313808	332	1.0	8313808
pH	pH	8.11	8313807	8.32	8313807	7.88	8313807	8.25		8313807
Physical Properties										
Total Suspended Solids	mg/L	44.3 (1)	8313668	8.3 (1)	8313668	<4.0 (1)	8313668	<4.0 (1)	4.0	8313668

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past recommended hold time.

(2) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(3) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

(4) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1334		OU1335		OU1336		OU1337		
Sampling Date		2016/06/06 11:36		2016/06/05 13:28		2016/06/05 13:53		2016/06/05 15:53		
COC Number		08423526		08423526		08423526		08423526		
	UNITS	**MW05-2B**	**QC Batch**	**MW05-3A**	**QC Batch**	**MW05-3B**	**QC Batch**	**MW05-4A**	**RDL**	**QC Batch**
Total Dissolved Solids	mg/L	196 (1)	8313904	272 (1)	8313904	278 (1)	8313904	232 (1)	10	8313904
Turbidity	NTU	241 (1)	8313434	63.9 (1)	8313434	0.21 (1)	8313434	16.0 (1)	0.10	8313434

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1338		OU1339		OU1340		
Sampling Date		2016/06/05 15:30		2016/06/05 11:20		2016/06/05 11:46		
COC Number		08423527		08423527		08423527		
	UNITS	MW05-4B	QC Batch	MW05-5A	QC Batch	MW05-5B	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.400	8314700	2.00	8314700	0.200	0.010	8314700
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8313576	<0.20	8313576	<0.20	0.20	8313576
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	115	8312901	265	8312901	156	0.50	8312901
Acidity (pH 4.5)	mg/L	<0.50	8313819	<0.50	8313816	<0.50	0.50	8313816
Alkalinity (Total as CaCO3)	mg/L	77.9	8313809	225	8313636	107	0.50	8313809
Acidity (pH 8.3)	mg/L	2.49	8313819	1.53	8313816	1.45	0.50	8313816
Alkalinity (PP as CaCO3)	mg/L	<0.50	8313809	<0.50	8313636	<0.50	0.50	8313809
Bicarbonate (HCO3)	mg/L	95.0	8313809	274	8313636	131	0.50	8313809
Carbonate (CO3)	mg/L	<0.50	8313809	<0.50	8313636	<0.50	0.50	8313809
Hydroxide (OH)	mg/L	<0.50	8313809	<0.50	8313636	<0.50	0.50	8313809
Anions								
Orthophosphate (P)	mg/L	0.0021 (1)	8313885	0.0076 (1)	8313885	0.0013 (1)	0.0010	8313885
Dissolved Sulphate (SO4)	mg/L	39.5	8315292	34.2	8315292	40.8	0.50	8315292
Dissolved Chloride (Cl)	mg/L	0.81	8315287	0.88	8315287	0.75	0.50	8315287
Nutrients								
Dissolved Phosphorus (P)	mg/L	<0.0020 (1)	8315002	0.0101 (1)	8315002	<0.0020 (1)	0.0020	8315002
Total Ammonia (N)	mg/L	0.045	8313959	0.094	8313959	0.036	0.0050	8313959
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8314093	<0.20 (2)	8314093	<0.20 (2)	0.20	8314093
Nitrite (N)	mg/L	<0.20 (2)	8314094	<0.20 (2)	8314094	<0.20 (2)	0.20	8314094
Physical Properties								
Conductivity	uS/cm	248	8313808	470	8313514	295	1.0	8313808
pH	pH	7.92	8313807	8.10	8313510	8.16		8313807
Physical Properties								
Total Suspended Solids	mg/L	<4.0 (3)	8313668	<4.0 (3)	8313668	<4.0 (3)	4.0	8313668
Total Dissolved Solids	mg/L	172 (3)	8313904	290 (3)	8313904	204 (3)	10	8313904

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(3) Sample analysed past recommended hold time.

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Maxxam Job #: B645276
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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1338		OU1339		OU1340		
Sampling Date		2016/06/05 15:30		2016/06/05 11:20		2016/06/05 11:46		
COC Number		08423527		08423527		08423527		
	UNITS	**MW05-4B**	**QC Batch**	**MW05-5A**	**QC Batch**	**MW05-5B**	**RDL**	**QC Batch**
Turbidity	NTU	13.5 (1)	8313434	5.32 (1)	8313434	7.74 (1)	0.10	8313434

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

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Maxxam Job #: B645276
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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1341		OU1342		OU1343	OU1344		
Sampling Date		2016/06/06 10:39		2016/06/06 10:54		2016/06/05 15:00	2016/06/05 14:40		
COC Number		08423527		08423527		08423527	08423527		
	UNITS	MW05-6A	RDL	MW05-6B	QC Batch	MW06-9S	MW06-9M	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.140	0.010	0.036	8314700	0.840	0.950	0.010	8314700
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	N/A	FIELD	ONSITE	FIELD	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.20	<0.20	8313576	<0.20	<0.20	0.20	8313576
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	72.6	0.50	89.2	8312901	135	198	0.50	8312901
Acidity (pH 4.5)	mg/L	<0.50	0.50	<0.50	8313819	<0.50	<0.50	0.50	8313819
Alkalinity (Total as CaCO3)	mg/L	62.2	0.50	83.0	8313809	95.8	163	0.50	8313809
Acidity (pH 8.3)	mg/L	0.85	0.50	<0.50	8313819	<0.50	<0.50	0.50	8313819
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	8313809	<0.50	1.75	0.50	8313809
Bicarbonate (HCO3)	mg/L	75.9	0.50	101	8313809	117	195	0.50	8313809
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	8313809	<0.50	2.10	0.50	8313809
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	8313809	<0.50	<0.50	0.50	8313809
Anions									
Orthophosphate (P)	mg/L	0.75 (1)	0.010	0.0042 (2)	8313885	0.14 (3)	0.0097 (3)	0.0010	8313885
Dissolved Sulphate (SO4)	mg/L	15.3	0.50	8.28	8315295	26.6	31.4	0.50	8315292
Dissolved Chloride (Cl)	mg/L	0.81	0.50	0.70	8315293	0.60	0.65	0.50	8315287
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.734 (1)	0.020	0.0025 (2)	8315002	0.161 (3)	0.0127 (3)	0.0020	8315002
Total Ammonia (N)	mg/L	0.011	0.0050	0.025	8313959	0.054	0.086	0.0050	8313959
Nitrate plus Nitrite (N)	mg/L	<0.20 (4)	0.20	<0.20 (4)	8314093	<0.20 (5)	<0.20 (5)	0.20	8314093
Nitrite (N)	mg/L	<0.20 (4)	0.20	<0.20 (4)	8314094	<0.20 (5)	<0.20 (5)	0.20	8314094
Physical Properties									
Conductivity	uS/cm	159	1.0	179	8313808	246	378	1.0	8313808
pH	pH	8.02		8.16	8313807	8.19	8.33		8313807

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.Sample analysed past recommended hold time.

(2) Sample analysed past recommended hold time.

(3) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(4) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

(5) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1341		OU1342		OU1343	OU1344		
Sampling Date		2016/06/06 10:39		2016/06/06 10:54		2016/06/05 15:00	2016/06/05 14:40		
COC Number		08423527		08423527		08423527	08423527		
	UNITS	MW05-6A	RDL	MW05-6B	QC Batch	MW06-9S	MW06-9M	RDL	QC Batch
Physical Properties									
Total Suspended Solids	mg/L	<4.0 (1)	4.0	<4.0 (1)	8313668	<4.0 (1)	<4.0 (1)	4.0	8313668
Total Dissolved Solids	mg/L	122 (1)	10	126 (1)	8313904	160 (1)	232 (1)	10	8313904
Turbidity	NTU	10.6 (1)	0.10	0.11 (1)	8313434	0.87 (1)	8.24 (1)	0.10	8313434

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1345			OU1346			OU1347		
Sampling Date		2016/06/05 12:12			2016/06/05 16:28			2016/06/06 13:17		
COC Number		08423527			08423527			08423527		
	UNITS	MW06-11S	RDL	QC Batch	MW06-12S	RDL	QC Batch	MW06-13	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	2.40	0.010	8314700	0.930	0.010	8314700	0.031	0.010	8314700
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.20	8313576	<0.20	0.20	8313576	<0.20	0.20	8313576
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	222	0.50	8312901	415	0.50	8312901	155	0.50	8312901
Acidity (pH 4.5)	mg/L	<0.50	0.50	8313819	<0.50	0.50	8313819	<0.50	0.50	8313819
Alkalinity (Total as CaCO3)	mg/L	183	0.50	8313809	135	0.50	8313809	134	0.50	8313809
Acidity (pH 8.3)	mg/L	0.70	0.50	8313819	1.89	0.50	8313819	7.73	0.50	8313819
Alkalinity (PP as CaCO3)	mg/L	2.81	0.50	8313809	<0.50	0.50	8313809	<0.50	0.50	8313809
Bicarbonate (HCO3)	mg/L	216	0.50	8313809	165	0.50	8313809	164	0.50	8313809
Carbonate (CO3)	mg/L	3.37	0.50	8313809	<0.50	0.50	8313809	<0.50	0.50	8313809
Hydroxide (OH)	mg/L	<0.50	0.50	8313809	<0.50	0.50	8313809	<0.50	0.50	8313809
Anions										
Orthophosphate (P)	mg/L	0.021 (1)	0.0010	8313885	0.020 (1)	0.0010	8313885	0.0019 (2)	0.0010	8313885
Dissolved Sulphate (SO4)	mg/L	36.6	0.50	8315292	241 (3)	5.0	8315295	35.8	0.50	8316744
Dissolved Chloride (Cl)	mg/L	0.82	0.50	8315287	0.95	0.50	8315293	1.5	0.50	8315293
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0237 (1)	0.0020	8315002	0.0197 (1)	0.0020	8315002	0.0090 (2)	0.0020	8315002
Total Ammonia (N)	mg/L	0.18	0.0050	8313368	0.12	0.0050	8313959	0.16	0.0050	8313959
Nitrate plus Nitrite (N)	mg/L	<0.20 (4)	0.20	8314093	<0.20 (4)	0.20	8314093	<0.20 (5)	0.20	8314093
Nitrite (N)	mg/L	0.23 (4)	0.20	8314094	<0.20 (4)	0.20	8314094	<0.20 (5)	0.20	8314094
Physical Properties										
Conductivity	uS/cm	418	1.0	8313808	777	1.0	8313808	328	1.0	8313808
pH	pH	8.38		8313807	8.25		8313807	8.01		8313807

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) Sample analysed past recommended hold time.

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

(4) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(5) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU1345			OU1346			OU1347		
Sampling Date		2016/06/05 12:12			2016/06/05 16:28			2016/06/06 13:17		
COC Number		08423527			08423527			08423527		
	UNITS	MW06-11S	RDL	QC Batch	MW06-12S	RDL	QC Batch	MW06-13	RDL	QC Batch
Physical Properties										
Total Suspended Solids	mg/L	<4.0 (1)	4.0	8313668	6.3 (1)	4.0	8313668	<4.0 (1)	4.0	8313668
Total Dissolved Solids	mg/L	246 (1)	10	8313904	568 (1)	10	8313904	208 (1)	10	8313904
Turbidity	NTU	7.29 (1)	0.10	8313434	34.1 (1)	0.10	8313434	0.13 (1)	0.10	8313434

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

MERCURY BY COLD VAPOR (WATER)

Maxxam ID		OU1329	OU1330	OU1331	OU1332	OU1333	OU1334	OU1335		
Sampling Date		2016/06/06 13:38	2016/06/05 09:57	2016/06/06 09:19	2016/06/06 08:50	2016/06/06 11:23	2016/06/06 11:36	2016/06/05 13:28		
COC Number		08423526	08423526	08423526	08423526	08423526	08423526	08423526		
	UNITS	W31	W82	MW05-1A	MW05-1B	MW05-2A	MW05-2B	MW05-3A	RDL	QC Batch
Elements										
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8319098
Total Mercury (Hg)	ug/L	<0.010	<0.010						0.010	8318054
RDL = Reportable Detection Limit										

Maxxam ID		OU1336	OU1337	OU1338	OU1339	OU1340	OU1341	OU1342		
Sampling Date		2016/06/05 13:53	2016/06/05 15:53	2016/06/05 15:30	2016/06/05 11:20	2016/06/05 11:46	2016/06/06 10:39	2016/06/06 10:54		
COC Number		08423526	08423526	08423527	08423527	08423527	08423527	08423527		
	UNITS	MW05-3B	MW05-4A	MW05-4B	MW05-5A	MW05-5B	MW05-6A	MW05-6B	RDL	QC Batch
Elements										
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8319098
RDL = Reportable Detection Limit										

Maxxam ID		OU1343	OU1344	OU1345	OU1346	OU1347		
Sampling Date		2016/06/05 15:00	2016/06/05 14:40	2016/06/05 12:12	2016/06/05 16:28	2016/06/06 13:17		
COC Number		08423527	08423527	08423527	08423527	08423527		
	UNITS	MW06-9S	MW06-9M	MW06-11S	MW06-12S	MW06-13	RDL	QC Batch
Elements								
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8319098
RDL = Reportable Detection Limit								

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1329	OU1330	OU1331	OU1332	OU1333		
Sampling Date		2016/06/06 13:38	2016/06/05 09:57	2016/06/06 09:19	2016/06/06 08:50	2016/06/06 11:23		
COC Number		08423526	08423526	08423526	08423526	08423526		
	UNITS	W31	W82	MW05-1A	MW05-1B	MW05-2A	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8318174
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.0148	0.0105	0.00061	0.0151	0.00173	0.00050	8314630
Dissolved Antimony (Sb)	mg/L	<0.000020	0.000315	<0.000020	0.000061	0.000090	0.000020	8314630
Dissolved Arsenic (As)	mg/L	0.000167	0.000254	0.00928	0.00518	0.00195	0.000020	8314630
Dissolved Barium (Ba)	mg/L	0.00986	0.112	0.0338	0.200	0.0484	0.000020	8314630
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000011	0.000010	8314630
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8314630
Dissolved Cadmium (Cd)	mg/L	<0.0000050	0.00183	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Chromium (Cr)	mg/L	0.00012	<0.00010	<0.00010	0.00014	<0.00010	0.00010	8314630
Dissolved Cobalt (Co)	mg/L	0.0000230	0.000151	<0.0000050	0.0000180	0.0000110	0.0000050	8314630
Dissolved Copper (Cu)	mg/L	0.00151	0.00209	<0.000050	0.000163	<0.000050	0.000050	8314630
Dissolved Iron (Fe)	mg/L	0.0023	0.131	2.49	0.0645	0.815	0.0010	8314630
Dissolved Lead (Pb)	mg/L	0.0000060	0.000287	0.0000180	0.0000910	0.0000550	0.0000050	8314630
Dissolved Lithium (Li)	mg/L	<0.00050	0.00090	<0.00050	0.00090	0.00174	0.00050	8314630
Dissolved Manganese (Mn)	mg/L	0.000063	0.0785	0.241	0.0866	0.243	0.000050	8314630
Dissolved Molybdenum (Mo)	mg/L	0.000308	0.000536	0.00636	0.00233	0.00385	0.000050	8314630
Dissolved Nickel (Ni)	mg/L	0.000109	0.0126	<0.000020	0.000985	0.000046	0.000020	8314630
Dissolved Phosphorus (P)	mg/L	0.0022	0.0143	0.246	0.275	0.0109	0.0020	8314630
Dissolved Selenium (Se)	mg/L	0.000222	0.00243	<0.000040	0.000067	<0.000040	0.000040	8314630
Dissolved Silicon (Si)	mg/L	2.50	3.69	3.84	4.65	4.08	0.050	8314630
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.0000050	0.0000050	8314630
Dissolved Strontium (Sr)	mg/L	0.0131	0.0971	0.155	0.128	0.161	0.000050	8314630
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000040	<0.0000020	<0.0000020	<0.0000020	0.0000020	8314630
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8314630
Dissolved Uranium (U)	mg/L	0.0000090	0.000319 (1)	0.0000070	0.0000560	0.00632	0.0000020	8314630
Dissolved Vanadium (V)	mg/L	0.00044	<0.00020	<0.00020	0.00167	<0.00020	0.00020	8314630
Dissolved Zinc (Zn)	mg/L	0.00046	0.196	0.00048	0.00050	0.00100	0.00010	8314630
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	0.00016	0.00016	0.00010	8314630
Dissolved Calcium (Ca)	mg/L	17.5	33.7	42.7	36.2	52.0	0.050	8312902

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1329	OU1330	OU1331	OU1332	OU1333		
Sampling Date		2016/06/06 13:38	2016/06/05 09:57	2016/06/06 09:19	2016/06/06 08:50	2016/06/06 11:23		
COC Number		08423526	08423526	08423526	08423526	08423526		
	UNITS	W31	W82	MW05-1A	MW05-1B	MW05-2A	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	1.02	5.11	5.15	2.85	16.8	0.050	8312902
Dissolved Potassium (K)	mg/L	0.356	0.697	1.16	1.38	1.56	0.050	8312902
Dissolved Sodium (Na)	mg/L	0.900	1.32	1.59	1.31	0.670	0.050	8312902
Dissolved Sulphur (S)	mg/L	<3.0	11.9	8.3	<3.0	10.3	3.0	8312902
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0166	0.0183				0.00050	8314810
Total Antimony (Sb)	mg/L	<0.000020	0.000280				0.000020	8314810
Total Arsenic (As)	mg/L	0.000147	0.000276				0.000020	8314810
Total Barium (Ba)	mg/L	0.0100	0.107				0.000020	8314810
Total Beryllium (Be)	mg/L	<0.000010	<0.000010				0.000010	8314810
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050				0.0000050	8314810
Total Boron (B)	mg/L	<0.010	<0.010				0.010	8314810
Total Cadmium (Cd)	mg/L	<0.0000050	0.00249				0.0000050	8314810
Total Chromium (Cr)	mg/L	0.00046	<0.00010				0.00010	8314810
Total Cobalt (Co)	mg/L	0.0000260	0.000182				0.0000050	8314810
Total Copper (Cu)	mg/L	0.00146	0.00206				0.000050	8314810
Total Iron (Fe)	mg/L	0.0050	0.259				0.0010	8314810
Total Lead (Pb)	mg/L	<0.0000050	0.000270				0.0000050	8314810
Total Lithium (Li)	mg/L	<0.00050	0.00083				0.00050	8314810
Total Manganese (Mn)	mg/L	0.000097	0.0866				0.000050	8314810
Total Molybdenum (Mo)	mg/L	0.000303	0.000485				0.000050	8314810
Total Nickel (Ni)	mg/L	0.000124	0.0125				0.000020	8314810
Total Phosphorus (P)	mg/L	<0.0020	0.0233				0.0020	8314810
Total Selenium (Se)	mg/L	0.000197	0.00240				0.000040	8314810
Total Silicon (Si)	mg/L	2.39	3.80				0.050	8314810
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050				0.0000050	8314810
Total Strontium (Sr)	mg/L	0.0120	0.0881				0.000050	8314810
Total Thallium (Tl)	mg/L	<0.0000020	0.0000040				0.0000020	8314810
Total Tin (Sn)	mg/L	<0.00020	<0.00020				0.00020	8314810
Total Titanium (Ti)	mg/L	<0.00050	<0.00050				0.00050	8314810
Total Uranium (U)	mg/L	0.0000100	0.000194				0.0000020	8314810
Total Vanadium (V)	mg/L	0.00036	<0.00020				0.00020	8314810
Total Zinc (Zn)	mg/L	0.00035	0.207				0.00010	8314810
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010				0.00010	8314810

RDL = Reportable Detection Limit

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1329	OU1330	OU1331	OU1332	OU1333		
Sampling Date		2016/06/06 13:38	2016/06/05 09:57	2016/06/06 09:19	2016/06/06 08:50	2016/06/06 11:23		
COC Number		08423526	08423526	08423526	08423526	08423526		
	UNITS	W31	W82	MW05-1A	MW05-1B	MW05-2A	RDL	QC Batch
Total Calcium (Ca)	mg/L	18.0	33.4				0.050	8313173
Total Magnesium (Mg)	mg/L	1.03	5.04				0.050	8313173
Total Potassium (K)	mg/L	0.352	0.686				0.050	8313173
Total Sodium (Na)	mg/L	0.896	1.24				0.050	8313173
Total Sulphur (S)	mg/L	<3.0	12.7				3.0	8313173
RDL = Reportable Detection Limit								

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1334	OU1335	OU1336	OU1337	OU1338		
Sampling Date		2016/06/06 11:36	2016/06/05 13:28	2016/06/05 13:53	2016/06/05 15:53	2016/06/05 15:30		
COC Number		08423526	08423526	08423526	08423526	08423527		
	UNITS	**MW05-2B**	**MW05-3A**	**MW05-3B**	**MW05-4A**	**MW05-4B**	**RDL**	**QC Batch**
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	0.024	<0.010	<0.010	0.010	8318174
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00371	0.00131	0.00109	0.00214	0.00258	0.00050	8314630
Dissolved Antimony (Sb)	mg/L	0.000021	0.000182	0.000130	<0.000020	0.000103	0.000020	8314630
Dissolved Arsenic (As)	mg/L	0.0508	0.00156	0.000079	0.00377	0.00232	0.000020	8314630
Dissolved Barium (Ba)	mg/L	0.186	0.0505	0.0616	0.0502	0.0591	0.000020	8314630
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8314630
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8314630
Dissolved Cadmium (Cd)	mg/L	0.0000050	0.000124	0.0282	0.0000140	0.00479	0.0000050	8314630
Dissolved Chromium (Cr)	mg/L	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8314630
Dissolved Cobalt (Co)	mg/L	0.000211	0.000144	0.0000240	0.0000140	0.00351	0.0000050	8314630
Dissolved Copper (Cu)	mg/L	0.000145	<0.000050	0.00315	0.000091	0.000066	0.000050	8314630
Dissolved Iron (Fe)	mg/L	21.8	5.42	0.0448	2.08	1.10	0.0010	8314630
Dissolved Lead (Pb)	mg/L	0.000147	0.0000900	0.000127	0.000105	0.0000230	0.0000050	8314630
Dissolved Lithium (Li)	mg/L	<0.00050	0.00121	0.00158	0.00080	0.00087	0.00050	8314630
Dissolved Manganese (Mn)	mg/L	1.23	0.247	0.00639	0.301	3.21	0.000050	8314630
Dissolved Molybdenum (Mo)	mg/L	0.00221	0.00285	0.000449	0.00424	0.00109	0.000050	8314630
Dissolved Nickel (Ni)	mg/L	0.000163	0.00144	0.00638	0.000076	0.00644	0.000020	8314630
Dissolved Phosphorus (P)	mg/L	0.342	0.0193	0.0030	0.0046	0.0049	0.0020	8314630
Dissolved Selenium (Se)	mg/L	0.000050	<0.000040	0.00423	<0.000040	<0.000040	0.000040	8314630
Dissolved Silicon (Si)	mg/L	5.68	4.20	4.97	3.56	7.03	0.050	8314630
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Strontium (Sr)	mg/L	0.0953	0.212	0.194	0.195	0.167	0.000050	8314630
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000040	0.0000100	<0.0000020	0.0000280	0.0000020	8314630
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Titanium (Ti)	mg/L	0.00058	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8314630
Dissolved Uranium (U)	mg/L	0.000107	0.0174	0.00213	0.000890	0.000322	0.0000020	8314630
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Zinc (Zn)	mg/L	0.00449	0.188	2.53	0.00200	0.181	0.00010	8314630
Dissolved Zirconium (Zr)	mg/L	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8314630
Dissolved Calcium (Ca)	mg/L	52.6	78.6	61.5	61.9	40.8	0.050	8312902
Dissolved Magnesium (Mg)	mg/L	6.55	9.44	7.00	4.11	3.21	0.050	8312902

RDL = Reportable Detection Limit

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1334	OU1335	OU1336	OU1337	OU1338		
Sampling Date		2016/06/06 11:36	2016/06/05 13:28	2016/06/05 13:53	2016/06/05 15:53	2016/06/05 15:30		
COC Number		08423526	08423526	08423526	08423526	08423527		
	UNITS	**MW05-2B**	**MW05-3A**	**MW05-3B**	**MW05-4A**	**MW05-4B**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.264	1.62	1.30	1.90	1.77	0.050	8312902
Dissolved Sodium (Na)	mg/L	1.26	1.92	8.10	1.11	0.966	0.050	8312902
Dissolved Sulphur (S)	mg/L	<3.0	14.2	31.9	17.3	13.6	3.0	8312902
RDL = Reportable Detection Limit								

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Maxxam Job #: B645276
Report Date: 2016/07/07

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1339	OU1340	OU1341	OU1342	OU1343		
Sampling Date		2016/06/05 11:20	2016/06/05 11:46	2016/06/06 10:39	2016/06/06 10:54	2016/06/05 15:00		
COC Number		08423527	08423527	08423527	08423527	08423527		
	UNITS	MW05-5A	MW05-5B	MW05-6A	MW05-6B	MW06-9S	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8318174
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00538	0.00101	0.00145	0.00143	0.00259	0.00050	8314630
Dissolved Antimony (Sb)	mg/L	0.00390	0.000091	0.00122	0.000034	0.000075	0.000020	8314630
Dissolved Arsenic (As)	mg/L	0.00510	0.00181	0.00607	0.000070	0.00448	0.000020	8314630
Dissolved Barium (Ba)	mg/L	0.0501	0.0374	0.0415	0.163	0.0608	0.000020	8314630
Dissolved Beryllium (Be)	mg/L	0.000027	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8314630
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8314630
Dissolved Cadmium (Cd)	mg/L	0.0000450	0.0000440	0.0000210	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	<0.00010	0.00091	<0.00010	0.00010	8314630
Dissolved Cobalt (Co)	mg/L	0.000275	0.000951	0.000302	0.0000080	0.0000470	0.0000050	8314630
Dissolved Copper (Cu)	mg/L	0.000459	0.000255	0.000151	0.000226	<0.000050	0.000050	8314630
Dissolved Iron (Fe)	mg/L	1.17	0.464	1.17	<0.0010	0.646	0.0010	8314630
Dissolved Lead (Pb)	mg/L	0.00140	0.000159	0.000204	<0.0000050	0.0000130	0.0000050	8314630
Dissolved Lithium (Li)	mg/L	0.00292	0.00115	<0.00050	<0.00050	0.00093	0.00050	8314630
Dissolved Manganese (Mn)	mg/L	0.103	0.938	0.124	0.000065	0.0895	0.000050	8314630
Dissolved Molybdenum (Mo)	mg/L	0.00690	0.000980	0.00151	0.000229	0.00381	0.000050	8314630
Dissolved Nickel (Ni)	mg/L	0.00197	0.00558	0.00126	0.000110	0.000124	0.000020	8314630
Dissolved Phosphorus (P)	mg/L	0.0154	0.0037	0.808	0.0050	0.169	0.0020	8314630
Dissolved Selenium (Se)	mg/L	0.000103	0.000109	0.000047	0.000647	<0.000040	0.000040	8314630
Dissolved Silicon (Si)	mg/L	3.86	3.74	6.97	4.42	4.43	0.050	8314630
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Strontium (Sr)	mg/L	0.136	0.120	0.0263	0.0464	0.143	0.000050	8314630
Dissolved Thallium (Tl)	mg/L	0.0000090	0.0000030	<0.0000020	<0.0000020	<0.0000020	0.0000020	8314630
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8314630
Dissolved Uranium (U)	mg/L	0.0269	0.00234	0.000109	0.000292	0.000509	0.0000020	8314630
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Zinc (Zn)	mg/L	0.0818	0.0879	0.00887	0.00088	0.00083	0.00010	8314630
Dissolved Zirconium (Zr)	mg/L	0.00057	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8314630
Dissolved Calcium (Ca)	mg/L	70.4	50.3	23.9	31.4	45.6	0.050	8312902
Dissolved Magnesium (Mg)	mg/L	21.7	7.26	3.12	2.64	5.12	0.050	8312902

RDL = Reportable Detection Limit

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1339	OU1340	OU1341	OU1342	OU1343		
Sampling Date		2016/06/05 11:20	2016/06/05 11:46	2016/06/06 10:39	2016/06/06 10:54	2016/06/05 15:00		
COC Number		08423527	08423527	08423527	08423527	08423527		
	UNITS	MW05-5A	MW05-5B	MW05-6A	MW05-6B	MW06-9S	RDL	QC Batch
Dissolved Potassium (K)	mg/L	1.56	0.727	1.09	0.696	1.07	0.050	8312902
Dissolved Sodium (Na)	mg/L	0.275	0.811	1.80	1.25	0.849	0.050	8312902
Dissolved Sulphur (S)	mg/L	11.5	13.6	5.6	<3.0	9.5	3.0	8312902
RDL = Reportable Detection Limit								

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Maxxam Job #: B645276
Report Date: 2016/07/07

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1344	OU1345	OU1346	OU1347		
Sampling Date		2016/06/05 14:40	2016/06/05 12:12	2016/06/05 16:28	2016/06/06 13:17		
COC Number		08423527	08423527	08423527	08423527		
	UNITS	MW06-9M	MW06-11S	MW06-12S	MW06-13	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	0.020	0.010	8318174
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00249	0.00438	0.00125	0.0131	0.00050	8314630
Dissolved Antimony (Sb)	mg/L	0.000605	0.000333	0.000141	0.000038	0.000020	8314630
Dissolved Arsenic (As)	mg/L	0.00200	0.00461	0.000822	0.000145	0.000020	8314630
Dissolved Barium (Ba)	mg/L	0.0555	0.0449	0.0211	0.301	0.000020	8314630
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8314630
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	8314630
Dissolved Cadmium (Cd)	mg/L	<0.0000050	<0.0000050	0.0000470	0.0000810	0.0000050	8314630
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8314630
Dissolved Cobalt (Co)	mg/L	0.0000300	0.000337	0.000364	0.0000730	0.0000050	8314630
Dissolved Copper (Cu)	mg/L	<0.000050	<0.000050	0.000177	0.00220	0.000050	8314630
Dissolved Iron (Fe)	mg/L	0.838	0.993	2.02	0.0109	0.0010	8314630
Dissolved Lead (Pb)	mg/L	0.0000400	0.0000120	0.0000220	0.0000160	0.0000050	8314630
Dissolved Lithium (Li)	mg/L	0.00222	0.00221	0.00426	0.00051	0.00050	8314630
Dissolved Manganese (Mn)	mg/L	0.0176	0.0978	0.154	1.12	0.000050	8314630
Dissolved Molybdenum (Mo)	mg/L	0.00478	0.0176	0.000762	0.000147	0.000050	8314630
Dissolved Nickel (Ni)	mg/L	0.000360	0.00106	0.000968	0.00284	0.000020	8314630
Dissolved Phosphorus (P)	mg/L	0.0128	0.0239	0.0122	0.0115	0.0020	8314630
Dissolved Selenium (Se)	mg/L	0.000042	<0.000040	0.000079	0.000636	0.000040	8314630
Dissolved Silicon (Si)	mg/L	3.71	5.81	3.77	4.65	0.050	8314630
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8314630
Dissolved Strontium (Sr)	mg/L	0.0818	0.114	0.522	0.120	0.000050	8314630
Dissolved Thallium (Tl)	mg/L	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000020	8314630
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8314630
Dissolved Uranium (U)	mg/L	0.00359	0.00588	0.0214	0.000359	0.0000020	8314630
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8314630
Dissolved Zinc (Zn)	mg/L	0.00387	0.00081	0.00946	0.00213	0.00010	8314630
Dissolved Zirconium (Zr)	mg/L	0.00014	<0.00010	<0.00010	<0.00010	0.00010	8314630
Dissolved Calcium (Ca)	mg/L	60.4	61.1	130	51.4	0.050	8312902
Dissolved Magnesium (Mg)	mg/L	11.5	16.9	22.1	6.57	0.050	8312902
RDL = Reportable Detection Limit							

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YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU1344	OU1345	OU1346	OU1347		
Sampling Date		2016/06/05 14:40	2016/06/05 12:12	2016/06/05 16:28	2016/06/06 13:17		
COC Number		08423527	08423527	08423527	08423527		
	UNITS	MW06-9M	MW06-11S	MW06-12S	MW06-13	RDL	QC Batch
Dissolved Potassium (K)	mg/L	1.69	1.43	3.54	1.22	0.050	8312902
Dissolved Sodium (Na)	mg/L	0.291	2.65	4.54	5.92	0.050	8312902
Dissolved Sulphur (S)	mg/L	11.3	12.6	89.9	11.7	3.0	8312902
RDL = Reportable Detection Limit							

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YUKON ZINC CORPORATION
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.3°C
Package 2	2.3°C

Sample analysed past recommended hold time for acidity, alkalinity, and cyanide analysis.

Results relate only to the items tested.

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Maxxam Job #: B645276
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QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8313368	Total Ammonia (N)	2016/06/28	105	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20
8313434	Turbidity	2016/06/28			103	80 - 120	<0.10	NTU	11	20
8313510	pH	2016/06/29			102	97 - 103			0.49	N/A
8313514	Conductivity	2016/06/29			98	80 - 120	<1.0	uS/cm	0.22	20
8313636	Alkalinity (PP as CaCO3)	2016/06/30					<0.50	mg/L	NC	20
8313636	Alkalinity (Total as CaCO3)	2016/06/30	NC	80 - 120	101	80 - 120	0.94, RDL=0.50	mg/L	0.19	20
8313636	Bicarbonate (HCO3)	2016/06/30					1.15, RDL=0.50	mg/L	0.19	20
8313636	Carbonate (CO3)	2016/06/30					<0.50	mg/L	NC	20
8313636	Hydroxide (OH)	2016/06/30					<0.50	mg/L	NC	20
8313668	Total Suspended Solids	2016/06/29	100	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
8313807	pH	2016/06/29			102	97 - 103			0.64	N/A
8313808	Conductivity	2016/06/29			100	80 - 120	<1.0	uS/cm	0.14	20
8313809	Alkalinity (PP as CaCO3)	2016/06/29					<0.50	mg/L	NC	20
8313809	Alkalinity (Total as CaCO3)	2016/06/29	NC	80 - 120	100	80 - 120	0.72, RDL=0.50	mg/L	0.85	20
8313809	Bicarbonate (HCO3)	2016/06/29					0.88, RDL=0.50	mg/L	0.85	20
8313809	Carbonate (CO3)	2016/06/29					<0.50	mg/L	NC	20
8313809	Hydroxide (OH)	2016/06/29					<0.50	mg/L	NC	20
8313816	Acidity (pH 4.5)	2016/06/28					<0.50	mg/L		
8313816	Acidity (pH 8.3)	2016/06/28			103	80 - 120	<0.50	mg/L		
8313819	Acidity (pH 4.5)	2016/06/28					<0.50	mg/L	NC	20
8313819	Acidity (pH 8.3)	2016/06/28			102	80 - 120	<0.50	mg/L	NC	20
8313885	Orthophosphate (P)	2016/06/28	90	80 - 120	106	80 - 120	<0.0010	mg/L	1.1	20
8313904	Total Dissolved Solids	2016/06/29	102	80 - 120	88	80 - 120	<10	mg/L	0.35	20
8313959	Total Ammonia (N)	2016/06/28	101	80 - 120	99	80 - 120	<0.0050	mg/L	1.6	20
8314093	Nitrate plus Nitrite (N)	2016/06/28	102	80 - 120	105	80 - 120	0.0022, RDL=0.0020	mg/L	NC	25
8314094	Nitrite (N)	2016/06/28	NC	80 - 120	97	80 - 120	<0.0020	mg/L	NC	25
8314577	Strong Acid Dissoc. Cyanide (CN)	2016/06/29	100	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8314600	Weak Acid Dissoc. Cyanide (CN)	2016/06/29	100	80 - 120	101	80 - 120	0.00075, RDL=0.00050	mg/L	NC	20
8314627	Dissolved Organic Carbon (C)	2016/06/29	NC	80 - 120	107	80 - 120	<0.50	mg/L	4.1	20
8314630	Dissolved Aluminum (Al)	2016/07/04	103	80 - 120	107	80 - 120	<0.00050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8314630	Dissolved Antimony (Sb)	2016/07/04	98	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8314630	Dissolved Arsenic (As)	2016/07/04	100	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8314630	Dissolved Barium (Ba)	2016/07/04	98	80 - 120	99	80 - 120	<0.000020	mg/L	2.0	20
8314630	Dissolved Beryllium (Be)	2016/07/04	99	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8314630	Dissolved Bismuth (Bi)	2016/07/04	100	80 - 120	108	80 - 120	<0.0000050	mg/L	NC	20
8314630	Dissolved Boron (B)	2016/07/04	104	80 - 120	98	80 - 120	<0.010	mg/L	NC	20
8314630	Dissolved Cadmium (Cd)	2016/07/04	102	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8314630	Dissolved Chromium (Cr)	2016/07/04	97	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8314630	Dissolved Cobalt (Co)	2016/07/04	98	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8314630	Dissolved Copper (Cu)	2016/07/04	97	80 - 120	101	80 - 120	<0.000050	mg/L	1.5	20
8314630	Dissolved Iron (Fe)	2016/07/04	95	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20
8314630	Dissolved Lead (Pb)	2016/07/04	98	80 - 120	102	80 - 120	<0.0000050	mg/L	2.3	20
8314630	Dissolved Lithium (Li)	2016/07/04	97	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
8314630	Dissolved Manganese (Mn)	2016/07/04	97	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8314630	Dissolved Molybdenum (Mo)	2016/07/04	95	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20
8314630	Dissolved Nickel (Ni)	2016/07/04	97	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8314630	Dissolved Phosphorus (P)	2016/07/03					<0.0020	mg/L		
8314630	Dissolved Selenium (Se)	2016/07/04	100	80 - 120	102	80 - 120	<0.000040	mg/L	NC	20
8314630	Dissolved Silicon (Si)	2016/07/04					<0.050	mg/L	NC	20
8314630	Dissolved Silver (Ag)	2016/07/04	103	80 - 120	109	80 - 120	<0.0000050	mg/L	NC	20
8314630	Dissolved Strontium (Sr)	2016/07/04	97	80 - 120	97	80 - 120	<0.000050	mg/L	2.6	20
8314630	Dissolved Thallium (Tl)	2016/07/04	94	80 - 120	104	80 - 120	<0.0000020	mg/L	NC	20
8314630	Dissolved Tin (Sn)	2016/07/04	99	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8314630	Dissolved Titanium (Ti)	2016/07/04	102	80 - 120	89	80 - 120	<0.00050	mg/L	NC	20
8314630	Dissolved Uranium (U)	2016/07/04	97	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
8314630	Dissolved Vanadium (V)	2016/07/04	103	80 - 120	113	80 - 120	<0.00020	mg/L	NC	20
8314630	Dissolved Zinc (Zn)	2016/07/04	101	80 - 120	99	80 - 120	<0.00010	mg/L	4.3	20
8314630	Dissolved Zirconium (Zr)	2016/07/04					<0.00010	mg/L	NC	20
8314700	Fluoride (F)	2016/06/29	97	80 - 120	98	80 - 120	<0.010	mg/L	NC	20
8314810	Total Aluminum (Al)	2016/06/30	112	80 - 120	110	80 - 120	<0.00050	mg/L	NC	20
8314810	Total Antimony (Sb)	2016/06/30	99	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8314810	Total Arsenic (As)	2016/06/30	102	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8314810	Total Barium (Ba)	2016/06/30	98	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8314810	Total Beryllium (Be)	2016/06/30	99	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
8314810	Total Bismuth (Bi)	2016/06/30	100	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8314810	Total Boron (B)	2016/06/30	97	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
8314810	Total Cadmium (Cd)	2016/06/30	99	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8314810	Total Chromium (Cr)	2016/06/30	97	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20
8314810	Total Cobalt (Co)	2016/06/30	98	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8314810	Total Copper (Cu)	2016/06/30	101	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8314810	Total Iron (Fe)	2016/06/30	106	80 - 120	108	80 - 120	<0.0010	mg/L	NC	20
8314810	Total Lead (Pb)	2016/06/30	98	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8314810	Total Lithium (Li)	2016/06/30	97	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
8314810	Total Manganese (Mn)	2016/06/30	98	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20
8314810	Total Molybdenum (Mo)	2016/06/30	94	80 - 120	95	80 - 120	<0.000050	mg/L	NC	20
8314810	Total Nickel (Ni)	2016/06/30	98	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8314810	Total Phosphorus (P)	2016/06/30					<0.0020	mg/L	NC	20
8314810	Total Selenium (Se)	2016/06/30	98	80 - 120	97	80 - 120	<0.000040	mg/L	NC	20
8314810	Total Silicon (Si)	2016/06/30					<0.050	mg/L	NC	20
8314810	Total Silver (Ag)	2016/06/30	101	80 - 120	94	80 - 120	<0.0000050	mg/L	NC	20
8314810	Total Strontium (Sr)	2016/06/30	96	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20
8314810	Total Thallium (Tl)	2016/06/30	109	80 - 120	111	80 - 120	0.0000020, RDL=0.0000020	mg/L	NC	20
8314810	Total Tin (Sn)	2016/06/30	97	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
8314810	Total Titanium (Ti)	2016/06/30	92	80 - 120	86	80 - 120	<0.00050	mg/L	NC	20
8314810	Total Uranium (U)	2016/06/30	97	80 - 120	98	80 - 120	<0.0000020	mg/L	NC	20
8314810	Total Vanadium (V)	2016/06/30	98	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8314810	Total Zinc (Zn)	2016/06/30	105	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
8314810	Total Zirconium (Zr)	2016/06/30					<0.00010	mg/L	NC	20
8314993	Dissolved Phosphorus (P)	2016/06/29	25 (1)	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20
8315002	Dissolved Phosphorus (P)	2016/06/29	94	80 - 120	94	80 - 120	<0.0020	mg/L	5.4	20
8315287	Dissolved Chloride (Cl)	2016/06/29	95	80 - 120	104	80 - 120	<0.50	mg/L	NC	20
8315292	Dissolved Sulphate (SO4)	2016/06/29	NC	80 - 120	96	80 - 120	0.51, RDL=0.50	mg/L	1.6	20
8315293	Dissolved Chloride (Cl)	2016/06/29			99	80 - 120	<0.50	mg/L		

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B645276
Report Date: 2016/07/07

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8315295	Dissolved Sulphate (SO4)	2016/06/29	93	80 - 120	94	80 - 120	0.51, RDL=0.50	mg/L	8.9	20
8316744	Dissolved Sulphate (SO4)	2016/06/30			96	80 - 120	<0.50	mg/L	0.38	20
8318054	Total Mercury (Hg)	2016/07/04	99	80 - 120	94	80 - 120	<0.010	ug/L	NC	20
8318174	Bromide (Br)	2016/07/04	106	78 - 120	99	80 - 120	<0.010	mg/L	NC	20
8319098	Dissolved Mercury (Hg)	2016/07/05	99	80 - 120	109	80 - 120	<0.010	ug/L	NC	20
8321069	Orthophosphate (P)	2016/07/06	NC	80 - 120	90	80 - 120	<0.0010	mg/L	1.8	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

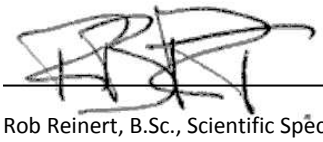
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B645276
Report Date: 2016/07/07

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

VALIDATION SIGNATURE PAGE

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



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam
A Bureau Veritas Group Company

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY R[illegible]

CO

08423526

BBY FCD-00077/05

Invoice Information		Report Information (if differs from invoice)		Project Information (whe		Turnaround Time (TAT) Required
Company Name:	Yukon Zinc Corporation	Company Name:	Yukon Zinc Corporation	Quotation #:		Regular TAT 5 days (Most analyses)
Contact Name:	Alex Wu	Contact Name:	Alex Wu	P.O. #/ AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	705 - 1030 West Georgia Street	Address:	705 - 1030 West Georgia Street	Project #:		Rush TAT (Surcharges will be applied)
	Vancouver PC: V6E 2Y3		Vancouver PC: V6E 2Y3	Site Location:	Wolverine Mine	Same Day / 2 Days / 1 Day / 3 Days
Phone:	604-684-5474	Phone:	604-684-5474	Site #:		Date Required:
Email:	alex.wu@yukonzinc.com	Email:	YZC GROUP	Sampled By:		Rush Confirmation #:

Regulatory Criteria	Special Instructions
BC CSR Soil / BC CSR Water / CCME (Specify) / Other (Specify) / Drinking Water / BC Water Quality	Return Cooler / Ship Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested: VOC/VPH, TEH, LEPH/HEPH, F2 - F4, Preserved?, Preserved?, Field Preserved?, Sulphate, COD, Alkalinity, Ammonia; MTBE, BTEX/F1, Filtered?, Filtered?, Field Preserved?, Fluoride, BOD, Conductivity, Nitrate; BTEX/VPH, EPH, PAH, CCME-PHC, Dissolved Metals, Dissolved Mercury, Total Metals, Total Mercury, Chloride, TDS, TSS, pH, Nitrite; # OF CONTAINERS SUBMITTED; HOLD - DO NOT ANALYZE

LABORATORY USE ONLY: CUSTODY SEAL: Y / N; COOLER TEMPERATURES: Present / Intact; 1A 3.4; 1B 2.3; COOLING MEDIA PRESENT: Y / N; COMMENTS

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	# OF CONTAINERS SUBMITTED
1	~~L1~~				Water	
2	~~W9~~				Water	
3	~~W22~~				Water	
4	W31		16/06/06	13:38	Water	8
5	~~W71~~		~~16/06/09~~	~~9:57~~	Water	
6	~~W72~~				Water	
7	~~W73~~				Water	
8	~~W80~~				Water	
9	W82		16/06/05	9:57	Water	8
10	~~T1~~				Water	
11	MW05-1A		16/06/06	9:19	Water	3
12	MW05-1B		16/06/06	8:58	Water	3
13	MW05-2A		16/06/06	11:22	Water	3
14	MW05-2B		16/06/06	11:36	Water	3
15	MW05-3A		16/06/05	13:28	Water	3
16	MW05-3B		16/06/05	13:57	Water	3
17	MW05-4A		16/06/05	15:53	Water	

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Brown	2016/06/07	08:00			
[signature]		0800	Laurel Berthier	2016/06/08	13:15

B645276_COC

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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY RECORD

08423527

BBY FCD-00077/05

Page 2 of 2

Invoice Information		Report Information (if differs from invoice)		Project Information (wh		d Time (TAT) Required
Company Name:	Yukon Zinc Corporation	Company Name:	Yukon Zinc Corporation	Quotation #:		☐ Regular TAT 5 days (Most analyses)
Contact Name:	Alex Wu	Contact Name:	Alex Wu	P.O. #/ AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	705 - 1030 West Georgia Street	Address:	705 - 1030 West Georgia Street	Project #:		Rush TAT (Surcharges will be applied)
	Vancouver PC: V6E 2Y3		Vancouver PC: V6E 2Y3	Site Location:	Wolverine Mine	☐ Same Day ☐ 2 Days
Phone:	604-684-5474	Phone:	604-684-5474	Site #:		☐ 1 Day ☐ 3 Days
Email:	alex.wu@yukonzinc.com	Email:	YZC GROUP	Sampled By:		Date Required:

Regulatory Criteria	Special Instructions
☐ BC CSR Soil ☐ BC CSR Water	☐ Return Cooler
☐ CCME (Specify) ☐ Other (Specify)	☐ Ship Sample Bottles (Please Specify)
☐ Drinking Water ☐ BC Water Quality	

Rush Confirmation #:

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	VOC/VPH	MTBE	BTEX/VPH	TEH	EPH	LEPH/NEPH	PAH	F2 - F4	BTEX/ F1	CCME-PHC	Preserved?	Filtered?	Dissolved Metals	Preserved?	Filtered?	Dissolved Mercury	Field Preserved?	Total Metals	Field Preserved?	Total Mercury	Sulphate	Fluoride	Chloride	COD	BOD	TDS	TSS	Alkalinity	Conductivity	pH	Ammonia	Nitrate	Nitrite	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COMMENTS
18	MW05-4B		16/06/05	15:30	Water													X					X			X	X	X	X					X		X			3		
19	MW05-5A		16/06/05	11:20	Water													X					X			X	X	X	X					X		X			3		
20	MW05-5B		16/06/05	11:46	Water													X					X			X	X	X	X					X		X			3		
21	MW05-6A		16/06/06	10:39	Water													X					X			X	X	X	X					X		X			3		
22	MW05-6B		16/06/06	10:54	Water													X					X			X	X	X	X					X		X			3		
23	~~MW05-7B~~				Water													X					X			X	X	X	X					X		X					
24	~~MW05-8S~~				Water													X					X			X	X	X	X					X		X					
25	~~MW06-8M~~				Water													X					X			X	X	X	X					X		X					
26	~~MW06-8D~~				Water													X					X			X	X	X	X					X		X					
27	MW06-9S		16/06/05	15:00	Water													X					X			X	X	X	X					X		X			3		
28	MW06-9M		16/06/05	14:40	Water													X					X			X	X	X	X					X		X			3		
29	~~MW06-10S~~				Water													X					X			X	X	X	X					X		X					
30	~~MW06-10M~~				Water													X								X	X	X	X					X		X					
31	~~MW06-10D~~				Water													X								X	X	X	X					X		X					
32	MW06-11S		16/06/05	12:12	Water													X								X	X	X	X					X		X			3		
33	MW06-12S		16/06/05	16:28	Water													X								X	X	X	X					X		X			3		
34	MW06-13		16/06/06	13:17	Water													X								X	X	X	X					X		X			3		

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Unsen.	2016/06/07	0800			
	16/06/07	0800	Laurel Bertrand	2016/06/08	13:15

LABORATORY USE ONLY

CUSTODY SEAL: Present (Y) / Intact (N)

COOLER TEMPERATURES

Present	Intact	
Y		3.3.4
Y		2.2.3

COOLING MEDIA PRESENT: ☐ Y ☐ N

B645276_COC

Your C.O.C. #: 08422985

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/06/30
Report #: R2209007
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B646178
Received: 2016/06/10, 12:15

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	6	N/A	2016/06/13	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	6	2016/06/11	2016/06/11	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	5	N/A	2016/06/13	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride by Automated Colourimetry	1	N/A	2016/06/14	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide SAD (strong acid dissociable)	6	N/A	2016/06/13	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	6	N/A	2016/06/13	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	3	N/A	2016/06/14	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - unfiltered/unpreserved (1)	1	N/A	2016/06/14	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	6	N/A	2016/06/11	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	6	N/A	2016/06/13	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	3	N/A	2016/06/14	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3)	3	N/A	2016/06/15	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	6	N/A	2016/06/15	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	6	N/A	2016/06/15	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	6	2016/06/15	2016/06/16	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Bromide as Bromine (Br) by ICPMS	6	N/A	2016/06/13	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	5	N/A	2016/06/15	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2016/06/17	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	6	N/A	2016/06/15	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	3	2016/06/13	2016/06/13	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2016/06/14	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2016/06/15	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	3	N/A	2016/06/15	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	6	N/A	2016/06/13	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	6	N/A	2016/06/12	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	6	N/A	2016/06/12	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	6	N/A	2016/06/13	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	6	N/A	2016/06/13	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	6	N/A	2016/06/11	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	6	N/A	2016/06/11	BBY6SOP-00013	SM 22 4500-P E m

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: 08422985

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/06/30
Report #: R2209007
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B646178
Received: 2016/06/10, 12:15

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sulphate by Automated Colourimetry	3	N/A	2016/06/13	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	3	N/A	2016/06/14	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	6	2016/06/11	2016/06/13	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	3	2016/06/14	2016/06/14	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	2	2016/06/13	2016/06/13	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/06/20	2016/06/20	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	6	N/A	2016/06/14	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	6	2016/06/13	2016/06/14	BBY6SOP-00034	SM 22 2540 D
Turbidity	6	N/A	2016/06/10	BBY6SOP-00027	SM 22 2130 B m

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) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B646178
Report Date: 2016/06/30

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU6164		OU6165		OU6166		
Sampling Date		2016/06/08 10:50		2016/06/08 11:12		2016/06/07 11:15		
COC Number		08422985		08422985		08422985		
	UNITS	L1	QC Batch	W9	QC Batch	W80	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.080	8297006	0.110	8297006	0.046	0.010	8297006
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	56.4	8294784	178	8294784	67.6	0.50	8294784
Nitrate (N)	mg/L	<0.20	8295171	<0.20	8295171	<0.20	0.20	8295171
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8297337	<0.00050	8297337	<0.00050	0.00050	8297337
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8297341	<0.00050	8297341	<0.00050	0.00050	8297341
Dissolved Hardness (CaCO3)	mg/L	60.5	8294832	182	8294832	70.2	0.50	8294832
Dissolved Organic Carbon (C)	mg/L	3.31	8299770	2.88	8299770	2.80	0.50	8299770
Acidity (pH 4.5)	mg/L	<0.50	8297292	<0.50	8297292	<0.50	0.50	8297292
Alkalinity (Total as CaCO3)	mg/L	48.2	8296280	137	8296280	59.7	0.50	8296280
Acidity (pH 8.3)	mg/L	<0.50	8297292	<0.50	8297292	<0.50	0.50	8297292
Alkalinity (PP as CaCO3)	mg/L	<0.50	8296280	<0.50	8296280	<0.50	0.50	8296280
Bicarbonate (HCO3)	mg/L	58.8	8296280	167	8296280	72.9	0.50	8296280
Carbonate (CO3)	mg/L	<0.50	8296280	<0.50	8296280	<0.50	0.50	8296280
Hydroxide (OH)	mg/L	<0.50	8296280	<0.50	8296280	<0.50	0.50	8296280
Anions								
Orthophosphate (P)	mg/L	0.0056	8296645	0.0033	8296645	0.0016 (1)	0.0010	8296645
Dissolved Sulphate (SO4)	mg/L	11.7	8299644	48.9	8299644	15.1	0.50	8299644
Dissolved Chloride (Cl)	mg/L	0.62	8297747	1.0	8299629	0.82	0.50	8297747
Nutrients								
Dissolved Phosphorus (P)	mg/L	0.0100	8299383	0.0052	8299383	0.0027	0.0020	8299383
Total Ammonia (N)	mg/L	0.016	8297745	0.0065	8297745	0.034	0.0050	8297745
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8297321	<0.20 (2)	8297321	<0.20 (3)	0.20	8297321
Nitrite (N)	mg/L	<0.20 (2)	8297333	<0.20 (2)	8297333	<0.20 (3)	0.20	8297333
Total Phosphorus (P)	mg/L	0.0192	8299392	0.0065	8299392	0.0048	0.0020	8299392
Physical Properties								
Conductivity	uS/cm	125	8296279	339	8296279	147	1.0	8296279

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) RDL raised due to sample matrix interference.

(3) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B646178
Report Date: 2016/06/30

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU6164		OU6165		OU6166		
Sampling Date		2016/06/08 10:50		2016/06/08 11:12		2016/06/07 11:15		
COC Number		08422985		08422985		08422985		
	UNITS	**L1**	**QC Batch**	**W9**	**QC Batch**	**W80**	**RDL**	**QC Batch**
pH	pH	7.80	8296269	8.17	8296269	7.89		8296269
Physical Properties								
Total Suspended Solids	mg/L	<4.0	8296969	<4.0	8296969	<4.0	4.0	8296960
Total Dissolved Solids	mg/L	76	8296085	198	8296085	90	10	8296085
Turbidity	NTU	0.99	8295419	0.26	8295419	0.44	0.10	8295419
RDL = Reportable Detection Limit								

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Maxxam Job #: B646178
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU6167		OU6168		OU6169		
Sampling Date		2016/06/07 14:20		2016/06/07 14:32		2016/06/07 14:42		
COC Number		08422985		08422985		08422985		
	UNITS	T1-1	QC Batch	T1-2	RDL	T1-3	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.180	8297006	0.230	0.010	0.290	0.010	8297006
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1530	8294784	1940	0.50	2470	0.50	8294784
Nitrate (N)	mg/L	<0.20	8295171	<0.20	0.20	<0.20	0.20	8295171
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.131	8297337	0.194	0.0050	0.327	0.0050	8297337
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00567	8297341	0.0160	0.00050	0.0438	0.00050	8297341
Dissolved Hardness (CaCO3)	mg/L	1330	8294832	1880	0.50	2110	0.50	8294832
Dissolved Organic Carbon (C)	mg/L	18.3 (1)	8296408		0.50		0.50	8296408
Acidity (pH 4.5)	mg/L	<0.50	8297292	<0.50	0.50	<0.50	0.50	8297292
Alkalinity (Total as CaCO3)	mg/L	15.8	8296280	<0.50	0.50	4.26	0.50	8296280
Acidity (pH 8.3)	mg/L	1.95	8297292	5.63	0.50	3.89	0.50	8297292
Alkalinity (PP as CaCO3)	mg/L	<0.50	8296280	<0.50	0.50	<0.50	0.50	8296280
Bicarbonate (HCO3)	mg/L	19.3	8296280	<0.50	0.50	5.20	0.50	8296280
Carbonate (CO3)	mg/L	<0.50	8296280	<0.50	0.50	<0.50	0.50	8296280
Hydroxide (OH)	mg/L	<0.50	8296280	<0.50	0.50	<0.50	0.50	8296280
Anions								
Orthophosphate (P)	mg/L	0.013 (2)	8296645	0.13 (2)	0.0010	<0.010 (3)	0.010	8296645
Dissolved Sulphate (SO4)	mg/L	1340 (4)	8297755	1690 (4)	5.0	1880 (4)	5.0	8297752
Dissolved Chloride (Cl)	mg/L	340 (4)	8297754	600 (4)	5.0	1200 (4)	5.0	8297747
Nutrients								
Dissolved Phosphorus (P)	mg/L	0.0986 (5)	8305552	0.164 (6)	0.0020	0.196 (6)	0.0020	8297643
Total Ammonia (N)	mg/L	0.62	8297745	0.61	0.0050	3.3 (4)	0.050	8297745

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample arrived to laboratory past recommended hold time.

(2) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(3) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis. RDL raised due to sample matrix interference.

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

(5) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

(6) Sample preserved to extend hold time.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OU6167		OU6168		OU6169		
Sampling Date		2016/06/07 14:20		2016/06/07 14:32		2016/06/07 14:42		
COC Number		08422985		08422985		08422985		
	UNITS	T1-1	QC Batch	T1-2	RDL	T1-3	RDL	QC Batch
Nitrate plus Nitrite (N)	mg/L	<0.20 (1)	8297321	<0.20 (1)	0.20	<0.20 (1)	0.20	8297321
Nitrite (N)	mg/L	<0.20 (1)	8297333	<0.20 (1)	0.20	<0.20 (1)	0.20	8297333
Total Phosphorus (P)	mg/L	0.114	8299392	0.186	0.0020	0.171	0.0020	8299392
Physical Properties								
Conductivity	uS/cm	2730	8296279	3650	1.0	4570	1.0	8296279
pH	pH	7.29	8296269	5.36		6.26		8296269
Physical Properties								
Total Suspended Solids	mg/L	5.0	8296960	4.0	4.0	<4.0	4.0	8296960
Total Dissolved Solids	mg/L	2470	8296085	3510	10	4050	50	8296085
Turbidity	NTU	6.08	8295419	8.48	0.10	8.36	0.10	8295419

RDL = Reportable Detection Limit

(1) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

MERCURY BY COLD VAPOR (WATER)

Maxxam ID		OU6164	OU6165	OU6166	OU6167	OU6168	OU6169		
Sampling Date		2016/06/08 10:50	2016/06/08 11:12	2016/06/07 11:15	2016/06/07 14:20	2016/06/07 14:32	2016/06/07 14:42		
COC Number		08422985	08422985	08422985	08422985	08422985	08422985		
	UNITS	L1	W9	W80	T1-1	T1-2	T1-3	RDL	QC Batch
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8300239
Total Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8300300
RDL = Reportable Detection Limit									

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU6164		OU6165		OU6166		
Sampling Date		2016/06/08 10:50		2016/06/08 11:12		2016/06/07 11:15		
COC Number		08422985		08422985		08422985		
	UNITS	L1	QC Batch	W9	QC Batch	W80	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	8295921	<0.010	8295921	<0.010	0.010	8295921
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00818	8301080	0.00256	8301080	0.00875	0.00050	8297514
Dissolved Antimony (Sb)	mg/L	<0.000020	8297514	0.000106	8297514	0.000034	0.000020	8297514
Dissolved Arsenic (As)	mg/L	0.00153	8297514	0.000303	8297514	0.000241	0.000020	8297514
Dissolved Barium (Ba)	mg/L	0.0432	8297514	0.144	8297514	0.0554	0.000020	8297514
Dissolved Beryllium (Be)	mg/L	<0.000010	8297514	<0.000010	8297514	<0.000010	0.000010	8297514
Dissolved Bismuth (Bi)	mg/L	0.0000210	8297514	<0.0000050	8297514	0.0000070	0.0000050	8297514
Dissolved Boron (B)	mg/L	<0.010	8297514	<0.010	8297514	<0.010	0.010	8297514
Dissolved Cadmium (Cd)	mg/L	<0.0000050	8297514	0.00138	8297514	0.0000110	0.0000050	8297514
Dissolved Chromium (Cr)	mg/L	<0.00010	8297514	<0.00010	8297514	<0.00010	0.00010	8297514
Dissolved Cobalt (Co)	mg/L	0.0000160	8297514	0.0000110	8297514	0.0000390	0.0000050	8297514
Dissolved Copper (Cu)	mg/L	0.000426	8301080	0.000731	8297514	0.000690	0.000050	8297514
Dissolved Iron (Fe)	mg/L	0.0295	8297514	0.0069	8297514	0.0416	0.0010	8297514
Dissolved Lead (Pb)	mg/L	<0.0000050	8297514	<0.0000050	8297514	0.0000050	0.0000050	8297514
Dissolved Lithium (Li)	mg/L	<0.00050	8297514	0.00058	8297514	<0.00050	0.00050	8297514
Dissolved Manganese (Mn)	mg/L	0.00194	8297514	0.000110	8297514	0.0103	0.000050	8297514
Dissolved Molybdenum (Mo)	mg/L	0.000992	8297514	0.000954	8297514	0.000380	0.000050	8297514
Dissolved Nickel (Ni)	mg/L	0.000340	8297514	0.00320	8297514	0.000270	0.000020	8297514
Dissolved Phosphorus (P)	mg/L	0.0148	8297514	0.0053	8301080	0.0048	0.0020	8301080
Dissolved Selenium (Se)	mg/L	0.000364	8301080	0.00373	8301080	0.000909	0.000040	8297514
Dissolved Silicon (Si)	mg/L	2.67	8297514	3.81	8297514	3.12	0.050	8297514
Dissolved Silver (Ag)	mg/L	<0.0000050	8297514	<0.0000050	8297514	<0.0000050	0.0000050	8297514
Dissolved Strontium (Sr)	mg/L	0.0488	8297514	0.173	8297514	0.0486	0.000050	8297514
Dissolved Thallium (Tl)	mg/L	<0.0000020	8297514	<0.0000020	8297514	<0.0000020	0.0000020	8297514
Dissolved Tin (Sn)	mg/L	<0.00020	8297514	<0.00020	8297514	<0.00020	0.00020	8297514
Dissolved Titanium (Ti)	mg/L	<0.00050	8297514	<0.00050	8297514	<0.00050	0.00050	8297514
Dissolved Uranium (U)	mg/L	0.000650	8297514	0.00288	8297514	0.000264	0.0000020	8297514
Dissolved Vanadium (V)	mg/L	<0.00020	8297514	<0.00020	8297514	<0.00020	0.00020	8297514
Dissolved Zinc (Zn)	mg/L	0.00115	8297514	0.117	8297514	0.00083	0.00010	8297514
Dissolved Zirconium (Zr)	mg/L	<0.00010	8297514	<0.00010	8297514	<0.00010	0.00010	8297514
Dissolved Calcium (Ca)	mg/L	18.4	8295360	52.4	8295360	22.5	0.050	8295360
Dissolved Magnesium (Mg)	mg/L	3.57	8295360	12.4	8295360	3.37	0.050	8295360
Dissolved Potassium (K)	mg/L	0.701	8295360	1.12	8295360	0.522	0.050	8295360
RDL = Reportable Detection Limit								

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU6164		OU6165		OU6166		
Sampling Date		2016/06/08 10:50		2016/06/08 11:12		2016/06/07 11:15		
COC Number		08422985		08422985		08422985		
	UNITS	L1	QC Batch	W9	QC Batch	W80	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	0.949	8295360	1.21	8295360	0.949	0.050	8295360
Dissolved Sulphur (S)	mg/L	3.1	8295360	15.6	8295360	4.1	3.0	8295360
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0131	8297106	0.00413	8297106	0.0304	0.00050	8297106
Total Antimony (Sb)	mg/L	0.000030	8297106	0.000124	8297106	0.000035	0.000020	8297106
Total Arsenic (As)	mg/L	0.00147	8297106	0.000333	8297106	0.000217	0.000020	8297106
Total Barium (Ba)	mg/L	0.0421	8297106	0.135	8297106	0.0539	0.000020	8297106
Total Beryllium (Be)	mg/L	<0.000010	8297106	<0.000010	8297106	<0.000010	0.000010	8297106
Total Bismuth (Bi)	mg/L	<0.0000050	8297106	<0.0000050	8297106	<0.0000050	0.0000050	8297106
Total Boron (B)	mg/L	<0.010	8297106	<0.010	8297106	<0.010	0.010	8297106
Total Cadmium (Cd)	mg/L	0.0000120	8297106	0.00131	8297106	0.0000130	0.0000050	8297106
Total Chromium (Cr)	mg/L	<0.00010	8297106	<0.00010	8297106	0.00013	0.00010	8297106
Total Cobalt (Co)	mg/L	0.0000170	8297106	0.0000120	8297106	0.0000430	0.0000050	8297106
Total Copper (Cu)	mg/L	0.000500	8297106	0.000737	8297106	0.000800	0.000050	8297106
Total Iron (Fe)	mg/L	0.0520	8297106	0.0062	8297106	0.0933	0.0010	8297106
Total Lead (Pb)	mg/L	0.0000140	8297106	0.0000160	8297106	0.0000310	0.0000050	8297106
Total Lithium (Li)	mg/L	<0.00050	8297106	0.00071	8297106	<0.00050	0.00050	8297106
Total Manganese (Mn)	mg/L	0.0138	8297106	0.000527	8297106	0.0125	0.000050	8297106
Total Molybdenum (Mo)	mg/L	0.000966	8297106	0.000982	8297106	0.000380	0.000050	8297106
Total Nickel (Ni)	mg/L	0.000389	8297106	0.00334	8297106	0.000295	0.000020	8297106
Total Phosphorus (P)	mg/L	0.0219	8297106	0.0138	8297106	0.0097	0.0020	8297106
Total Selenium (Se)	mg/L	0.000364	8297106	0.00364	8297106	0.000764	0.000040	8297106
Total Silicon (Si)	mg/L	2.44	8297106	3.53	8297106	2.92	0.050	8297106
Total Silver (Ag)	mg/L	<0.0000050	8297106	<0.0000050	8297106	<0.0000050	0.0000050	8297106
Total Strontium (Sr)	mg/L	0.0482	8297106	0.190	8297106	0.0454	0.000050	8297106
Total Thallium (Tl)	mg/L	<0.0000020	8297106	<0.0000020	8297106	<0.0000020	0.0000020	8297106
Total Tin (Sn)	mg/L	<0.00020	8297106	<0.00020	8297106	<0.00020	0.00020	8297106
Total Titanium (Ti)	mg/L	0.00054	8297106	<0.00050	8297106	0.00088	0.00050	8297106
Total Uranium (U)	mg/L	0.000642	8297106	0.00273	8297106	0.000258	0.0000020	8297106
Total Vanadium (V)	mg/L	<0.00020	8297106	<0.00020	8297106	<0.00020	0.00020	8297106
Total Zinc (Zn)	mg/L	0.00144	8297106	0.113	8297106	0.00081	0.00010	8297106
Total Zirconium (Zr)	mg/L	<0.00010	8297106	<0.00010	8297106	<0.00010	0.00010	8297106
Total Calcium (Ca)	mg/L	17.1	8295501	49.5	8295501	21.9	0.050	8295501
Total Magnesium (Mg)	mg/L	3.34	8295501	13.2	8295501	3.16	0.050	8295501
Total Potassium (K)	mg/L	0.700	8295501	1.27	8295501	0.519	0.050	8295501

RDL = Reportable Detection Limit

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU6164		OU6165		OU6166		
Sampling Date		2016/06/08 10:50		2016/06/08 11:12		2016/06/07 11:15		
COC Number		08422985		08422985		08422985		
	UNITS	L1	QC Batch	W9	QC Batch	W80	RDL	QC Batch
Total Sodium (Na)	mg/L	0.884	8295501	1.28	8295501	0.898	0.050	8295501
Total Sulphur (S)	mg/L	3.7	8295501	16.6	8295501	4.6	3.0	8295501
RDL = Reportable Detection Limit								

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Maxxam Job #: B646178
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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU6167	OU6168		OU6169		
Sampling Date		2016/06/07 14:20	2016/06/07 14:32		2016/06/07 14:42		
COC Number		08422985	08422985		08422985		
	UNITS	T1-1	T1-2	QC Batch	T1-3	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.10 (1)	<0.10 (1)	8295921	0.11 (1)	0.10	8295921
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.0147	0.0588	8297514	0.0650	0.00050	8297514
Dissolved Antimony (Sb)	mg/L	0.0396	0.0581	8297514	0.0659	0.000020	8297514
Dissolved Arsenic (As)	mg/L	0.00607	0.00754	8297514	0.00797	0.000020	8297514
Dissolved Barium (Ba)	mg/L	0.0705	0.0991	8297514	0.106	0.000020	8297514
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	8297514	<0.000010	0.000010	8297514
Dissolved Bismuth (Bi)	mg/L	0.0000170	<0.0000050	8297514	0.0000290 (2)	0.0000050	8297514
Dissolved Boron (B)	mg/L	0.011	0.019	8297514	0.021	0.010	8297514
Dissolved Cadmium (Cd)	mg/L	0.0118	0.0117	8297514	0.00426	0.0000050	8297514
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	8297514	<0.00010	0.00010	8297514
Dissolved Cobalt (Co)	mg/L	0.00173	0.00191	8297514	0.00111	0.0000050	8297514
Dissolved Copper (Cu)	mg/L	0.403	0.549	8297514	0.952	0.000050	8297514
Dissolved Iron (Fe)	mg/L	0.126	0.676	8297514	0.506	0.0010	8297514
Dissolved Lead (Pb)	mg/L	0.110	0.255	8297514	0.221	0.0000050	8297514
Dissolved Lithium (Li)	mg/L	0.00913	0.0154	8297514	0.0191	0.00050	8297514
Dissolved Manganese (Mn)	mg/L	0.324	0.377	8297514	0.0997	0.000050	8297514
Dissolved Molybdenum (Mo)	mg/L	0.0585	0.105	8297514	0.0739	0.000050	8297514
Dissolved Nickel (Ni)	mg/L	0.00651	0.00745	8297514	0.00935	0.000020	8297514
Dissolved Phosphorus (P)	mg/L	0.0871	0.146	8297514	0.198	0.0020	8297514
Dissolved Selenium (Se)	mg/L	1.55	1.95	8297514	4.06	0.000040	8297514
Dissolved Silicon (Si)	mg/L	1.58	2.23	8297514	1.92	0.050	8297514
Dissolved Silver (Ag)	mg/L	0.00241	0.00426	8297514	0.000228	0.0000050	8297514
Dissolved Strontium (Sr)	mg/L	2.27	3.20	8297514	4.20	0.000050	8297514
Dissolved Thallium (Tl)	mg/L	0.000819	0.00120	8297514	0.00103	0.0000020	8297514
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	8297514	<0.00020	0.00020	8297514
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	8297514	<0.00050	0.00050	8297514
Dissolved Uranium (U)	mg/L	0.000562	0.000675	8297514	0.000284	0.0000020	8297514
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	8297514	<0.00020	0.00020	8297514
Dissolved Zinc (Zn)	mg/L	1.26	1.20	8297514	0.842	0.00010	8297514
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	8297514	<0.00010	0.00010	8297514
Dissolved Calcium (Ca)	mg/L	528	750	8295360	842	0.050	8301891

RDL = Reportable Detection Limit
(1) RDL raised due to sample matrix interference.
(2) Dissolved greater than total. Reanalysis yields similar results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU6167	OU6168		OU6169		
Sampling Date		2016/06/07 14:20	2016/06/07 14:32		2016/06/07 14:42		
COC Number		08422985	08422985		08422985		
	UNITS	T1-1	T1-2	QC Batch	T1-3	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	2.09	2.25	8295360	1.35	0.050	8301891
Dissolved Potassium (K)	mg/L	39.8	61.3	8295360	75.8	0.050	8301891
Dissolved Sodium (Na)	mg/L	142	213	8295360	270	0.050	8301891
Dissolved Sulphur (S)	mg/L	704	1120	8295360	1890 (1)	3.0	8301891
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0571	0.0592	8297350	0.0647	0.0030	8297350
Total Antimony (Sb)	mg/L	0.0450	0.0597	8297350	0.0702	0.000050	8297350
Total Arsenic (As)	mg/L	0.00743	0.00845	8297350	0.0114	0.000020	8297350
Total Barium (Ba)	mg/L	0.0789	0.130	8297350	0.125	0.00010	8297350
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	8297350	<0.000010	0.000010	8297350
Total Bismuth (Bi)	mg/L	<0.000020	<0.000020	8297350	<0.000020	0.000020	8297350
Total Boron (B)	mg/L	<0.050	<0.050	8297350	<0.050	0.050	8297350
Total Cadmium (Cd)	mg/L	0.0127	0.0113	8297350	0.00404	0.0000050	8297350
Total Chromium (Cr)	mg/L	<0.00050	<0.00050	8297350	<0.00050	0.00050	8297350
Total Cobalt (Co)	mg/L	0.00191	0.00193	8297350	0.00108	0.000010	8297350
Total Copper (Cu)	mg/L	0.426	0.602	8297350	1.17	0.00020	8297350
Total Iron (Fe)	mg/L	0.595	0.719	8297350	0.550	0.0050	8297350
Total Lead (Pb)	mg/L	0.173	0.260	8297350	0.227	0.000050	8297350
Total Lithium (Li)	mg/L	0.0113	0.0146	8297350	0.0176	0.00050	8297350
Total Manganese (Mn)	mg/L	0.331	0.375	8297350	0.100	0.00010	8297350
Total Molybdenum (Mo)	mg/L	0.0700	0.116	8297350	0.146	0.000050	8297350
Total Nickel (Ni)	mg/L	0.00687	0.00751	8297350	0.0100	0.00010	8297350
Total Phosphorus (P)	mg/L	0.089	0.165	8297350	0.213	0.010	8297350
Total Selenium (Se)	mg/L	1.58	1.81	8297350	4.00	0.000040	8297350
Total Silicon (Si)	mg/L	1.63	2.18	8297350	1.88	0.10	8297350
Total Silver (Ag)	mg/L	0.00515	0.00839	8297350	0.0126	0.000010	8297350
Total Strontium (Sr)	mg/L	2.13	2.94	8297350	4.03	0.000050	8297350
Total Thallium (Tl)	mg/L	0.000970	0.00123	8297350	0.00113	0.0000020	8297350
Total Tin (Sn)	mg/L	<0.00020	<0.00020	8297350	<0.00020	0.00020	8297350
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	8297350	<0.0050	0.0050	8297350
Total Uranium (U)	mg/L	0.000835	0.00101	8297350	0.000349	0.0000050	8297350
Total Vanadium (V)	mg/L	<0.00050	<0.00050	8297350	<0.00050	0.00050	8297350
Total Zinc (Zn)	mg/L	1.32	1.22	8297350	0.858	0.0010	8297350
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	8297350	<0.00010	0.00010	8297350

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B646178
Report Date: 2016/06/30

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OU6167	OU6168		OU6169		
Sampling Date		2016/06/07 14:20	2016/06/07 14:32		2016/06/07 14:42		
COC Number		08422985	08422985		08422985		
	UNITS	T1-1	T1-2	QC Batch	T1-3	RDL	QC Batch
Total Calcium (Ca)	mg/L	610	772	8295501	986	0.25	8295501
Total Magnesium (Mg)	mg/L	2.27	2.33	8295501	1.53	0.25	8295501
Total Potassium (K)	mg/L	42.8	61.9	8295501	82.1	0.25	8295501
Total Sodium (Na)	mg/L	152	218	8295501	294	0.25	8295501
Total Sulphur (S)	mg/L	706	935	8295501	1060	15	8295501
RDL = Reportable Detection Limit							

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Maxxam Job #: B646178
Report Date: 2016/06/30

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Sample OU6164-01 : Sample(s) submitted unpreserved for cyanide. Possible low bias.

Sample OU6165-01 : Sample(s) submitted unpreserved for cyanide. Possible low bias.

Sample OU6166-01 : Sample(s) submitted unpreserved for cyanide. Possible low bias.

Sample OU6164, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample OU6165, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample OU6166, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Maxxam Job #: B646178
Report Date: 2016/06/30

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8295419	Turbidity	2016/06/10			101	80 - 120	<0.10	NTU	0.84	20
8295921	Bromide (Br)	2016/06/13	NC	78 - 120	94	80 - 120	<0.010	mg/L	1.5	20
8296085	Total Dissolved Solids	2016/06/13	NC	80 - 120	82	80 - 120	<10	mg/L	1.0	20
8296269	pH	2016/06/11			102	97 - 103			0.76	N/A
8296279	Conductivity	2016/06/11			100	80 - 120	<1.0	uS/cm	1.6	20
8296280	Alkalinity (PP as CaCO3)	2016/06/11					<0.50	mg/L	NC	20
8296280	Alkalinity (Total as CaCO3)	2016/06/11	106	80 - 120	101	80 - 120	0.53, RDL=0.50	mg/L	2.6	20
8296280	Bicarbonate (HCO3)	2016/06/11					0.65, RDL=0.50	mg/L	2.6	20
8296280	Carbonate (CO3)	2016/06/11					<0.50	mg/L	NC	20
8296280	Hydroxide (OH)	2016/06/11					<0.50	mg/L	NC	20
8296408	Dissolved Organic Carbon (C)	2016/06/14	99	80 - 120	109	80 - 120	<0.50	mg/L	NC	20
8296645	Orthophosphate (P)	2016/06/11	96	80 - 120	91	80 - 120	<0.0010	mg/L	4.8	20
8296960	Total Suspended Solids	2016/06/14	101	80 - 120	97	80 - 120	<4.0	mg/L	NC	20
8296969	Total Suspended Solids	2016/06/14	104	80 - 120	97	80 - 120	<4.0	mg/L	NC	20
8297006	Fluoride (F)	2016/06/13	NC	80 - 120	104	80 - 120	0.013, RDL=0.010	mg/L	0	20
8297106	Total Aluminum (Al)	2016/06/15	113	80 - 120	112	80 - 120	<0.00050	mg/L	NC	20
8297106	Total Antimony (Sb)	2016/06/15	97	80 - 120	94	80 - 120	<0.000020	mg/L	NC	20
8297106	Total Arsenic (As)	2016/06/15	106	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8297106	Total Barium (Ba)	2016/06/15	97	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8297106	Total Beryllium (Be)	2016/06/15	100	80 - 120	92	80 - 120	<0.000010	mg/L	NC	20
8297106	Total Bismuth (Bi)	2016/06/15	101	80 - 120	100	80 - 120	<0.0000050	mg/L		
8297106	Total Boron (B)	2016/06/15	92	80 - 120	88	80 - 120	<0.010	mg/L		
8297106	Total Cadmium (Cd)	2016/06/15	104	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8297106	Total Chromium (Cr)	2016/06/15	100	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20
8297106	Total Cobalt (Co)	2016/06/15	99	80 - 120	98	80 - 120	<0.0000050	mg/L		
8297106	Total Copper (Cu)	2016/06/15	99	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8297106	Total Iron (Fe)	2016/06/15	107	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20
8297106	Total Lead (Pb)	2016/06/15	102	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8297106	Total Lithium (Li)	2016/06/15	104	80 - 120	92	80 - 120	<0.00050	mg/L		
8297106	Total Manganese (Mn)	2016/06/15	104	80 - 120	100	80 - 120	<0.000050	mg/L		
8297106	Total Molybdenum (Mo)	2016/06/15	92	80 - 120	94	80 - 120	<0.000050	mg/L		
8297106	Total Nickel (Ni)	2016/06/15	98	80 - 120	98	80 - 120	<0.000020	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8297106	Total Phosphorus (P)	2016/06/15					<0.0020	mg/L		
8297106	Total Selenium (Se)	2016/06/15	102	80 - 120	96	80 - 120	<0.000040	mg/L	NC	20
8297106	Total Silicon (Si)	2016/06/15					<0.050	mg/L		
8297106	Total Silver (Ag)	2016/06/15	99	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8297106	Total Strontium (Sr)	2016/06/15	110	80 - 120	107	80 - 120	<0.000050	mg/L		
8297106	Total Thallium (Tl)	2016/06/15	106	80 - 120	108	80 - 120	<0.0000020	mg/L	NC	20
8297106	Total Tin (Sn)	2016/06/15	100	80 - 120	98	80 - 120	<0.00020	mg/L		
8297106	Total Titanium (Ti)	2016/06/15	100	80 - 120	103	80 - 120	<0.00050	mg/L		
8297106	Total Uranium (U)	2016/06/15	99	80 - 120	97	80 - 120	<0.0000020	mg/L		
8297106	Total Vanadium (V)	2016/06/15	100	80 - 120	102	80 - 120	<0.00020	mg/L		
8297106	Total Zinc (Zn)	2016/06/15	112	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
8297106	Total Zirconium (Zr)	2016/06/15					<0.00010	mg/L		
8297292	Acidity (pH 4.5)	2016/06/13					<0.50	mg/L	NC	20
8297292	Acidity (pH 8.3)	2016/06/13			98	80 - 120	<0.50	mg/L	NC	20
8297321	Nitrate plus Nitrite (N)	2016/06/12	100	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
8297333	Nitrite (N)	2016/06/12	NC	80 - 120	99	80 - 120	<0.0020	mg/L	NC	25
8297337	Strong Acid Dissoc. Cyanide (CN)	2016/06/13	106	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8297341	Weak Acid Dissoc. Cyanide (CN)	2016/06/13			103	80 - 120	<0.00050	mg/L		
8297350	Total Aluminum (Al)	2016/06/13	NC	80 - 120	107	80 - 120	<0.0030	mg/L	5.2	20
8297350	Total Antimony (Sb)	2016/06/13	98	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20
8297350	Total Arsenic (As)	2016/06/13	103	80 - 120	103	80 - 120	<0.000020	mg/L	2.4	20
8297350	Total Barium (Ba)	2016/06/13	NC	80 - 120	102	80 - 120	<0.00010	mg/L	1.5	20
8297350	Total Beryllium (Be)	2016/06/13	96	80 - 120	94	80 - 120	<0.000010	mg/L	NC	20
8297350	Total Bismuth (Bi)	2016/06/13	99	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8297350	Total Boron (B)	2016/06/13	96	80 - 120	92	80 - 120	<0.050	mg/L	NC	20
8297350	Total Cadmium (Cd)	2016/06/13	102	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8297350	Total Chromium (Cr)	2016/06/13	NC	80 - 120	99	80 - 120	<0.00050	mg/L	2.0	20
8297350	Total Cobalt (Co)	2016/06/13	102	80 - 120	100	80 - 120	<0.000010	mg/L	1.2	20
8297350	Total Copper (Cu)	2016/06/13	101	80 - 120	103	80 - 120	<0.00020	mg/L	0.49	20
8297350	Total Iron (Fe)	2016/06/13	NC	80 - 120	114	80 - 120	<0.0050	mg/L	3.4	20
8297350	Total Lead (Pb)	2016/06/13	100	80 - 120	98	80 - 120	<0.000050	mg/L	1.2	20
8297350	Total Lithium (Li)	2016/06/13	93	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8297350	Total Manganese (Mn)	2016/06/13	NC	80 - 120	102	80 - 120	<0.00010	mg/L	1.1	20
8297350	Total Molybdenum (Mo)	2016/06/13	NC	80 - 120	98	80 - 120	<0.000050	mg/L	3.2	20
8297350	Total Nickel (Ni)	2016/06/13	NC	80 - 120	99	80 - 120	<0.00010	mg/L	0.26	20
8297350	Total Phosphorus (P)	2016/06/13					<0.010	mg/L		
8297350	Total Selenium (Se)	2016/06/13	100	80 - 120	102	80 - 120	<0.000040	mg/L	NC	20
8297350	Total Silicon (Si)	2016/06/13					<0.10	mg/L	0.17	20
8297350	Total Silver (Ag)	2016/06/13	118	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8297350	Total Strontium (Sr)	2016/06/13	NC	80 - 120	91	80 - 120	<0.000050	mg/L	0.60	20
8297350	Total Thallium (Tl)	2016/06/13	91	80 - 120	86	80 - 120	<0.0000020	mg/L	0	20
8297350	Total Tin (Sn)	2016/06/13	108	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20
8297350	Total Titanium (Ti)	2016/06/13	NC	80 - 120	96	80 - 120	<0.0050	mg/L	0.15	20
8297350	Total Uranium (U)	2016/06/13	101	80 - 120	98	80 - 120	<0.0000050	mg/L	1.3	20
8297350	Total Vanadium (V)	2016/06/13	105	80 - 120	103	80 - 120	<0.00050	mg/L	3.7	20
8297350	Total Zinc (Zn)	2016/06/13	NC	80 - 120	107	80 - 120	<0.0010	mg/L	4.8	20
8297350	Total Zirconium (Zr)	2016/06/13					<0.00010	mg/L	NC	20
8297514	Dissolved Aluminum (Al)	2016/06/15	111	80 - 120	111	80 - 120	<0.00050	mg/L		
8297514	Dissolved Antimony (Sb)	2016/06/15	95	80 - 120	90	80 - 120	<0.000020	mg/L		
8297514	Dissolved Arsenic (As)	2016/06/15	106	80 - 120	100	80 - 120	<0.000020	mg/L		
8297514	Dissolved Barium (Ba)	2016/06/15	102	80 - 120	96	80 - 120	<0.000020	mg/L		
8297514	Dissolved Beryllium (Be)	2016/06/15	97	80 - 120	97	80 - 120	<0.000010	mg/L		
8297514	Dissolved Bismuth (Bi)	2016/06/15	98	80 - 120	104	80 - 120	<0.0000050	mg/L		
8297514	Dissolved Boron (B)	2016/06/15	93	80 - 120	92	80 - 120	<0.010	mg/L		
8297514	Dissolved Cadmium (Cd)	2016/06/15	103	80 - 120	99	80 - 120	<0.0000050	mg/L		
8297514	Dissolved Chromium (Cr)	2016/06/15	98	80 - 120	98	80 - 120	<0.00010	mg/L		
8297514	Dissolved Cobalt (Co)	2016/06/15	97	80 - 120	96	80 - 120	<0.0000050	mg/L		
8297514	Dissolved Copper (Cu)	2016/06/15	97	80 - 120	96	80 - 120	<0.000050	mg/L		
8297514	Dissolved Iron (Fe)	2016/06/15	104	80 - 120	108	80 - 120	<0.0010	mg/L		
8297514	Dissolved Lead (Pb)	2016/06/15	98	80 - 120	102	80 - 120	<0.0000050	mg/L		
8297514	Dissolved Lithium (Li)	2016/06/15	96	80 - 120	102	80 - 120	<0.00050	mg/L		
8297514	Dissolved Manganese (Mn)	2016/06/15	101	80 - 120	102	80 - 120	<0.000050	mg/L		
8297514	Dissolved Molybdenum (Mo)	2016/06/15	93	80 - 120	92	80 - 120	<0.000050	mg/L		
8297514	Dissolved Nickel (Ni)	2016/06/15	98	80 - 120	96	80 - 120	<0.000020	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8297514	Dissolved Phosphorus (P)	2016/06/15					<0.0020	mg/L		
8297514	Dissolved Selenium (Se)	2016/06/15	100	80 - 120	95	80 - 120	<0.000040	mg/L		
8297514	Dissolved Silicon (Si)	2016/06/15					<0.050	mg/L	NC	20
8297514	Dissolved Silver (Ag)	2016/06/15	99	80 - 120	96	80 - 120	<0.0000050	mg/L		
8297514	Dissolved Strontium (Sr)	2016/06/15	109	80 - 120	105	80 - 120	0.000053, RDL=0.000050	mg/L		
8297514	Dissolved Thallium (Tl)	2016/06/15	100	80 - 120	108	80 - 120	<0.0000020	mg/L		
8297514	Dissolved Tin (Sn)	2016/06/15	100	80 - 120	97	80 - 120	<0.00020	mg/L		
8297514	Dissolved Titanium (Ti)	2016/06/15	99	80 - 120	99	80 - 120	<0.00050	mg/L		
8297514	Dissolved Uranium (U)	2016/06/15	94	80 - 120	101	80 - 120	0.0000020, RDL=0.0000020	mg/L		
8297514	Dissolved Vanadium (V)	2016/06/15	99	80 - 120	102	80 - 120	<0.00020	mg/L		
8297514	Dissolved Zinc (Zn)	2016/06/15	107	80 - 120	97	80 - 120	0.00011, RDL=0.00010	mg/L		
8297514	Dissolved Zirconium (Zr)	2016/06/15					<0.00010	mg/L		
8297643	Dissolved Phosphorus (P)	2016/06/13	94	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20
8297745	Total Ammonia (N)	2016/06/13	95	80 - 120	97	80 - 120	<0.0050	mg/L	0.45	20
8297747	Dissolved Chloride (Cl)	2016/06/13	112	80 - 120	100	80 - 120	<0.50	mg/L	NC	20
8297752	Dissolved Sulphate (SO4)	2016/06/13	NC	80 - 120	99	80 - 120	<0.50	mg/L	0.0030	20
8297754	Dissolved Chloride (Cl)	2016/06/13	112	80 - 120	101	80 - 120	0.83, RDL=0.50	mg/L	NC	20
8297755	Dissolved Sulphate (SO4)	2016/06/13	NC	80 - 120	96	80 - 120	<0.50	mg/L	2.1	20
8299383	Dissolved Phosphorus (P)	2016/06/14	95	80 - 120	104	80 - 120	<0.0020	mg/L	NC	20
8299392	Total Phosphorus (P)	2016/06/14	NC	80 - 120	109	80 - 120	<0.0020	mg/L	NC	20
8299629	Dissolved Chloride (Cl)	2016/06/14	116	80 - 120	104	80 - 120	<0.50	mg/L	0.98	20
8299644	Dissolved Sulphate (SO4)	2016/06/14			100	80 - 120	<0.50	mg/L		
8299770	Dissolved Organic Carbon (C)	2016/06/14	104	80 - 120	105	80 - 120	<0.50	mg/L	NC	20
8300239	Dissolved Mercury (Hg)	2016/06/15	89	80 - 120	97	80 - 120	<0.010	ug/L	NC	20
8300300	Total Mercury (Hg)	2016/06/16	92	80 - 120	93	80 - 120	<0.010	ug/L	NC	20
8301080	Dissolved Aluminum (Al)	2016/06/16			112	80 - 120	<0.00050	mg/L		
8301080	Dissolved Copper (Cu)	2016/06/16			105	80 - 120	<0.000050	mg/L		
8301080	Dissolved Phosphorus (P)	2016/06/16					<0.0020	mg/L		
8301080	Dissolved Selenium (Se)	2016/06/16			98	80 - 120	<0.000040	mg/L		

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Maxxam Job #: B646178
Report Date: 2016/06/30

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8305552	Dissolved Phosphorus (P)	2016/06/20			94	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

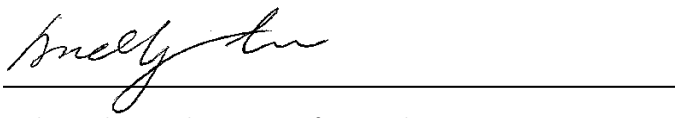
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Maxxam Job #: B646178
Report Date: 2016/06/30

YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

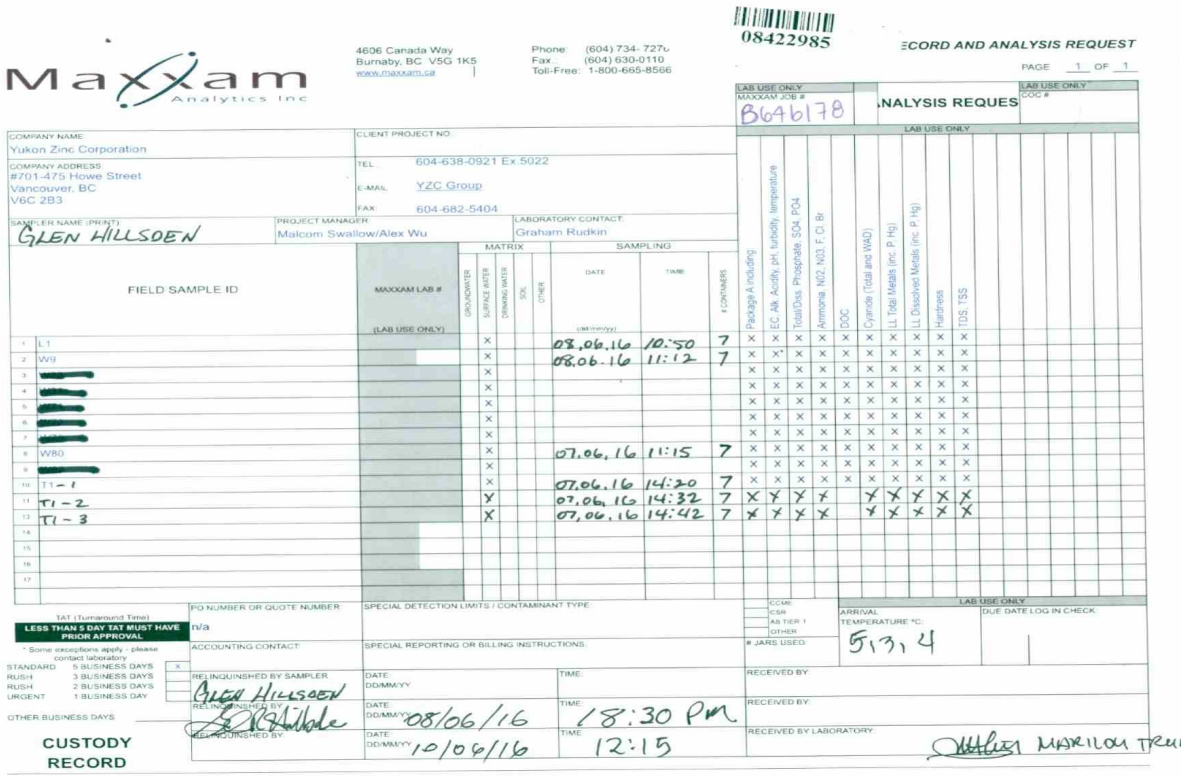
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

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08422985

RECORD AND ANALYSIS REQUEST

PAGE 1 OF 1

LAB USE ONLY
MAXXAM JOB #: B646178

ANALYSIS REQUES

LAB USE ONLY
COC #

LAB USE ONLY

COMPANY NAME: Yukon Zinc Corporation
CLIENT PROJECT NO:
COMPANY ADDRESS: #701-475 Howe Street, Vancouver, BC, V6C 2B3
TEL: 604-638-0921 Ex 5022
E-MAIL: YZC Group
FAX: 604-682-5404
SAMPLER NAME (PRINT): GLEN HILLSDEN
PROJECT MANAGER: Malcom Swallow/Alex Wu
LABORATORY CONTACT: Graham Rudkin

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE (dd/mm/yy)	TIME	# CONTAINERS	Package A including	EC, Alk, Acidity, pH, turbidity, temperature	Total/Diss. Phosphate, SO4, PO4	Ammonia, NO2, NO3, F, Cl, Br	DOC	Cyanide (Total and WAD)	LL Total Metals (inc. P, Hg)	LL Dissolved Metals (inc. P, Hg)	Hardness	TDS, TSS
1	L1			X				08.06.16	10:50	7	X	X	X	X	X	X	X	X	X	X
2	W9			X				08.06.16	11:12	7	X	X*	X	X	X	X	X	X	X	X
3	[redacted]			X							X	X	X	X	X	X	X	X	X	X
4	[redacted]			X							X	X	X	X	X	X	X	X	X	X
5	[redacted]			X							X	X	X	X	X	X	X	X	X	X
6	[redacted]			X							X	X	X	X	X	X	X	X	X	X
7	[redacted]			X							X	X	X	X	X	X	X	X	X	X
8	W80			X				07.06.16	11:15	7	X	X	X	X	X	X	X	X	X	X
9	[redacted]			X							X	X	X	X	X	X	X	X	X	X
10	T1-1			X				07.06.16	14:20	7	X	X	X	X	X	X	X	X	X	X
11	T1-2			Y				07.06.16	14:32	7	X	Y	Y	Y	Y		Y	Y	Y	Y
12	T1-3			X				07.06.16	14:42	7	X	Y	Y	Y	Y		Y	Y	Y	Y
13																				
14																				
15																				
16																				
17																				

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS X
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER: n/a
ACCOUNTING CONTACT:
SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:
SPECIAL REPORTING OR BILLING INSTRUCTIONS:

CCME
CSR
AB TIER 1
OTHER
JARS USED:

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 5, 3, 4
DUE DATE LOG IN CHECK:

RELINQUISHED BY SAMPLER: GLEN HILLSDEN
DATE DD/MM/YY:
TIME:
RECEIVED BY:

RELINQUISHED BY: [signature]
DATE DD/MM/YY: 08/06/16
TIME: 18:30 PM
RECEIVED BY:

RELINQUISHED BY:
DATE DD/MM/YY: 10/06/16
TIME: 12:15
RECEIVED BY LABORATORY: [signature] MARILOU TRUJANO

CUSTODY RECORD

Maxxam
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Your C.O.C. #: 08423713

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/07/12
Report #: R2213899
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B653907
Received: 2016/07/04, 09:40

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	4	N/A	2016/07/05	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	4	2016/07/05	2016/07/05	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	4	N/A	2016/07/05	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (1)	4	N/A	2016/07/06	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	4	N/A	2016/07/05	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	4	N/A	2016/07/05	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2016/07/07	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	4	N/A	2016/07/12	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2016/07/07	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2016/07/07	BBY7SOP-00002	EPA 6020B R2 m
Ammonia-N (Unpreserved)	4	N/A	2016/07/06	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	4	N/A	2016/07/05	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	4	N/A	2016/07/05	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	4	N/A	2016/07/05	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	4	N/A	2016/07/07	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	4	N/A	2016/07/05	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	4	N/A	2016/07/05	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	4	N/A	2016/07/05	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	4	2016/07/05	2016/07/06	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	4	2016/07/05	2016/07/05	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - unpreserved	4	N/A	2016/07/05	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	4	2016/07/05	2016/07/06	BBY6SOP-00034	SM 22 2540 D
Turbidity	4	N/A	2016/07/05	BBY6SOP-00027	SM 22 2130 B m

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) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

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Your C.O.C. #: 08423713

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/07/12
Report #: R2213899
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B653907
Received: 2016/07/04, 09:40

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B653907
Report Date: 2016/07/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OY7345	OY7346	OY7347	OY7348		
Sampling Date		2016/06/29 18:15	2016/06/29 16:30	2016/06/30 05:30	2016/06/29 14:10		
COC Number		08423713	08423713	08423713	08423713		
	UNITS	MW06-8S	MW06-8M	MW06-8D	MW06-10D	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	0.270	1.30	0.910	1.00	0.010	8319425
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	<0.20	<0.20	<0.20	0.20	8318712
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	101	215	255	272	0.50	8317834
Dissolved Organic Carbon (C)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	8320921
Acidity (pH 4.5)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	8319439
Alkalinity (Total as CaCO3)	mg/L	68.7	169	227	248	0.50	8319387
Acidity (pH 8.3)	mg/L	7.62	<0.50	<0.50	1.03	0.50	8319439
Alkalinity (PP as CaCO3)	mg/L	<0.50	2.32	2.58	1.69	0.50	8319387
Bicarbonate (HCO3)	mg/L	83.8	201	270	298	0.50	8319387
Carbonate (CO3)	mg/L	<0.50	2.78	3.10	2.03	0.50	8319387
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	8319387
Anions							
Orthophosphate (P)	mg/L	0.29 (1)	0.0047 (1)	0.0012 (1)	<0.0010 (1)	0.0010	8319677
Dissolved Sulphate (SO4)	mg/L	31.0	36.3	26.7	23.3	0.50	8320224
Dissolved Chloride (Cl)	mg/L	1.4	1.2	1.1	0.80	0.50	8320223
Nutrients							
Dissolved Phosphorus (P)	mg/L	0.315	0.0093	0.0030	0.0045	0.0020	8319972
Total Ammonia (N)	mg/L	0.014 (1)	0.087 (1)	0.083 (1)	0.093 (1)	0.0050	8320986
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	<0.20 (2)	<0.20 (2)	<0.20 (2)	0.20	8320115
Nitrite (N)	mg/L	<0.20 (2)	<0.20 (2)	<0.20 (2)	<0.20 (2)	0.20	8320116
Total Phosphorus (P)	mg/L	0.320 (1)	0.0110 (1)	0.0033 (1)	0.0061 (1)	0.0020	8318825
Physical Properties							
Conductivity	uS/cm	203	382	455	484	1.0	8319386
pH	pH	7.66	8.37	8.35	8.32		8319379
Physical Properties							
Total Suspended Solids	mg/L	<4.0	<4.0	<4.0	<4.0	4.0	8320044
Total Dissolved Solids	mg/L	118	214	240	264	10	8319465

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B653907
Report Date: 2016/07/12

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		OY7345	OY7346	OY7347	OY7348		
Sampling Date		2016/06/29 18:15	2016/06/29 16:30	2016/06/30 05:30	2016/06/29 14:10		
COC Number		08423713	08423713	08423713	08423713		
	UNITS	MW06-8S	MW06-8M	MW06-8D	MW06-10D	RDL	QC Batch
Turbidity	NTU	5.50 (1)	0.57 (1)	4.86 (1)	19.3 (1)	0.10	8319423

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B653907
Report Date: 2016/07/12

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OY7345	OY7346	OY7347	OY7348		
Sampling Date		2016/06/29 18:15	2016/06/29 16:30	2016/06/30 05:30	2016/06/29 14:10		
COC Number		08423713	08423713	08423713	08423713		
	UNITS	MW06-8S	MW06-8M	MW06-8D	MW06-10D	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	8326512
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00344	0.00082	0.00144	0.00074	0.00050	8319460
Dissolved Antimony (Sb)	mg/L	0.00489	0.000867	0.000246	0.000078	0.000020	8319460
Dissolved Arsenic (As)	mg/L	0.00124	0.0119	0.00458	0.000730	0.000020	8319460
Dissolved Barium (Ba)	mg/L	0.0240	0.0632	0.0435	0.0488	0.000020	8319460
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8319460
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8319460
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	8319460
Dissolved Cadmium (Cd)	mg/L	0.0000830	<0.0000050	<0.0000050	<0.0000050	0.0000050	8319460
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00015	<0.00010	<0.00010	0.00010	8319460
Dissolved Cobalt (Co)	mg/L	0.00377	0.000174	0.0000390	<0.0000050	0.0000050	8319460
Dissolved Copper (Cu)	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	8319460
Dissolved Iron (Fe)	mg/L	2.26	0.350	0.627	1.40	0.0010	8319460
Dissolved Lead (Pb)	mg/L	0.0000140	0.0000150	<0.0000050	0.0000240	0.0000050	8319460
Dissolved Lithium (Li)	mg/L	0.00098	0.00458	0.00277	0.00261	0.00050	8319460
Dissolved Manganese (Mn)	mg/L	0.341	0.0293	0.00896	0.0106	0.000050	8319460
Dissolved Molybdenum (Mo)	mg/L	0.00249	0.00513	0.00133	0.00497	0.000050	8319460
Dissolved Nickel (Ni)	mg/L	0.0423	0.00231	0.000288	0.000036	0.000020	8319460
Dissolved Phosphorus (P)	mg/L	0.304	0.0100	0.0044	0.0059	0.0020	8319460
Dissolved Selenium (Se)	mg/L	<0.000040	<0.000040	<0.000040	<0.000040	0.000040	8319460
Dissolved Silicon (Si)	mg/L	5.91	4.08	4.78	4.56	0.050	8319460
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8319460
Dissolved Strontium (Sr)	mg/L	0.0611	0.144	0.167	0.161	0.000050	8319460
Dissolved Thallium (Tl)	mg/L	0.0000110	0.0000030	0.0000020	<0.0000020	0.0000020	8319460
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8319460
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8319460
Dissolved Uranium (U)	mg/L	0.0000270	0.0218	0.0111	0.00967	0.0000020	8319460
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8319460
Dissolved Zinc (Zn)	mg/L	1.47	0.00090	0.00022	0.00024	0.00010	8319460
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00062	<0.00010	0.00010	8319460
Dissolved Calcium (Ca)	mg/L	34.4	48.7	60.8	72.9	0.050	8317835
Dissolved Magnesium (Mg)	mg/L	3.71	22.6	24.9	21.8	0.050	8317835
Dissolved Potassium (K)	mg/L	0.926	1.89	1.67	1.97	0.050	8317835

RDL = Reportable Detection Limit

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Maxxam Job #: B653907
Report Date: 2016/07/12

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		OY7345	OY7346	OY7347	OY7348		
Sampling Date		2016/06/29 18:15	2016/06/29 16:30	2016/06/30 05:30	2016/06/29 14:10		
COC Number		08423713	08423713	08423713	08423713		
	UNITS	**MW06-8S**	**MW06-8M**	**MW06-8D**	**MW06-10D**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	1.01	1.38	0.363	0.834	0.050	8317835
Dissolved Sulphur (S)	mg/L	11.4	13.0	9.1	8.3	3.0	8317835
RDL = Reportable Detection Limit							

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Maxxam Job #: B653907
Report Date: 2016/07/12

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C

Results relate only to the items tested.

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Maxxam Job #: B653907
Report Date: 2016/07/12

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8318825	Total Phosphorus (P)	2016/07/05	100	80 - 120	104	80 - 120	<0.0020	mg/L	8.1	20
8319379	pH	2016/07/05			101	97 - 103				
8319386	Conductivity	2016/07/05			100	80 - 120	<1.0	uS/cm		
8319387	Alkalinity (PP as CaCO3)	2016/07/05					<0.50	mg/L		
8319387	Alkalinity (Total as CaCO3)	2016/07/05	NC	80 - 120	100	80 - 120	<0.50	mg/L		
8319387	Bicarbonate (HCO3)	2016/07/05					<0.50	mg/L		
8319387	Carbonate (CO3)	2016/07/05					<0.50	mg/L		
8319387	Hydroxide (OH)	2016/07/05					<0.50	mg/L		
8319423	Turbidity	2016/07/05			102	80 - 120	<0.10	NTU	8.8	20
8319425	Fluoride (F)	2016/07/05	NC	80 - 120	100	80 - 120	<0.010	mg/L	NC	20
8319439	Acidity (pH 4.5)	2016/07/05					<0.50	mg/L	NC	20
8319439	Acidity (pH 8.3)	2016/07/05			97	80 - 120	<0.50	mg/L	NC	20
8319460	Dissolved Aluminum (Al)	2016/07/07	112	80 - 120	110	80 - 120	<0.00050	mg/L	5.4	20
8319460	Dissolved Antimony (Sb)	2016/07/07	102	80 - 120	100	80 - 120	<0.000020	mg/L	0.80	20
8319460	Dissolved Arsenic (As)	2016/07/07	107	80 - 120	99	80 - 120	<0.000020	mg/L	0.63	20
8319460	Dissolved Barium (Ba)	2016/07/07	NC	80 - 120	101	80 - 120	<0.000020	mg/L	3.8	20
8319460	Dissolved Beryllium (Be)	2016/07/07	100	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8319460	Dissolved Bismuth (Bi)	2016/07/07	102	80 - 120	108	80 - 120	<0.0000050	mg/L	NC	20
8319460	Dissolved Boron (B)	2016/07/07	NC	80 - 120	97	80 - 120	<0.010	mg/L	2.3	20
8319460	Dissolved Cadmium (Cd)	2016/07/07	100	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8319460	Dissolved Chromium (Cr)	2016/07/07	98	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
8319460	Dissolved Cobalt (Co)	2016/07/07	95	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8319460	Dissolved Copper (Cu)	2016/07/07	93	80 - 120	99	80 - 120	<0.000050	mg/L	3.6	20
8319460	Dissolved Iron (Fe)	2016/07/07	104	80 - 120	108	80 - 120	<0.0010	mg/L	4.5	20
8319460	Dissolved Lead (Pb)	2016/07/07	100	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20
8319460	Dissolved Lithium (Li)	2016/07/07	101	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8319460	Dissolved Manganese (Mn)	2016/07/07	101	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8319460	Dissolved Molybdenum (Mo)	2016/07/07	104	80 - 120	96	80 - 120	<0.000050	mg/L	2.8	20
8319460	Dissolved Nickel (Ni)	2016/07/07	93	80 - 120	98	80 - 120	<0.000020	mg/L	2.6	20
8319460	Dissolved Phosphorus (P)	2016/07/07					0.0020, RDL=0.0020	mg/L	NC	20
8319460	Dissolved Selenium (Se)	2016/07/07	98	80 - 120	101	80 - 120	<0.000040	mg/L	6.7	20
8319460	Dissolved Silicon (Si)	2016/07/07					<0.050	mg/L	0.58	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8319460	Dissolved Silver (Ag)	2016/07/07	98	80 - 120	96	80 - 120	0.0000070, RDL=0.0000050	mg/L	NC	20
8319460	Dissolved Strontium (Sr)	2016/07/07	NC	80 - 120	100	80 - 120	<0.000050	mg/L	1.2	20
8319460	Dissolved Thallium (Tl)	2016/07/07	83	80 - 120	107	80 - 120	<0.0000020	mg/L	NC	20
8319460	Dissolved Tin (Sn)	2016/07/07	101	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20
8319460	Dissolved Titanium (Ti)	2016/07/07	95	80 - 120	107	80 - 120	<0.00050	mg/L	NC	20
8319460	Dissolved Uranium (U)	2016/07/07	108	80 - 120	106	80 - 120	<0.0000020	mg/L	1.6	20
8319460	Dissolved Vanadium (V)	2016/07/07	100	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8319460	Dissolved Zinc (Zn)	2016/07/07	100	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8319460	Dissolved Zirconium (Zr)	2016/07/07					<0.00010	mg/L	NC	20
8319465	Total Dissolved Solids	2016/07/06	NC	80 - 120	90	80 - 120	<10	mg/L	2.9	20
8319677	Orthophosphate (P)	2016/07/05	NC	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20
8319972	Dissolved Phosphorus (P)	2016/07/05	90	80 - 120	112	80 - 120	<0.0020	mg/L	NC	20
8320044	Total Suspended Solids	2016/07/06	111	80 - 120	97	80 - 120	<4.0	mg/L	1.9	20
8320115	Nitrate plus Nitrite (N)	2016/07/05	103	80 - 120	106	80 - 120	<0.0020	mg/L	4.9	25
8320116	Nitrite (N)	2016/07/05	96	80 - 120	98	80 - 120	<0.0020	mg/L	NC	25
8320223	Dissolved Chloride (Cl)	2016/07/05			108	80 - 120	0.78, RDL=0.50	mg/L		
8320224	Dissolved Sulphate (SO4)	2016/07/05	NC	80 - 120	103	80 - 120	0.54, RDL=0.50	mg/L	5.8	20
8320921	Dissolved Organic Carbon (C)	2016/07/06	103	80 - 120	108	80 - 120	<0.50	mg/L	NC	20
8320986	Total Ammonia (N)	2016/07/06	100	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20
8326512	Bromide (Br)	2016/07/12	NC	78 - 120	96	80 - 120	<0.010	mg/L	2.5	20

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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Maxxam Job #: B653907
Report Date: 2016/07/12

YUKON ZINC CORPORATION

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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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UPDATED

Maxxam
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CHAIN OF CUSTOD

08423713

FCD-03077/05

Burnaby: 6990 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name:	Quotation #:	☑ Regular TAT 5 days (Mon-Fri)
Contact Name: Alex Wu	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1090 West Georgia Street	Address:	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC: V6E 2Y3	PC:	Site Location:	☐ Same Day ☐ 2 Days
Phone: 604-684-5474	Phone:	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By:	Date Required:

Regulatory Criteria	Special Instructions
☐ BC CSR Soil ☐ BC CSR Water ☐ CCME (Specify) ☐ Other (Specify) ☐ Drinking Water ☐ BC Water Quality	☐ Return Cooler ☐ Ship Sample Bottles (Please Specify)

Rush Confirmation #:

LABORATORY USE ONLY

CATEGORY SEAL: ✓ / ✗

COOLER TEMPERATURES

Present	Intact	
Y/N		3.2

COOLING MEDIA PRESENT: Y / N

COMMENTS:

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Required: VOC/VH; TPH; BTEX/VH; PAH; Metals; Dissolved Metals; Total Metals; Chlorine; WS; pH; Anions; Alkalinity; Ammonia; Nitrate; Package A; Total Phosphate and Ammonia; DOC; # OF CONTAINERS SUBMITTED; HOLD - DO NOT ANALYSE

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	Dissolved Metals (Filtered?)	Nitrate	Package A	Total Phosphate and Ammonia	DOC	# OF CONTAINERS SUBMITTED
	Bottle					Plastic Specific Gravity	125mL plastic	2 x plastic + 120 mL	100 mL plastic	100 mL glass	
	Preservative					HNO3	None	-	None	H2SO4	
	Filtered					✓	✓	✓	✓	✓	
1	MW06-BS		2016/06/29		Water	X	X	XX	X	X	3
2	MW06-BM		2016/06/30		Water	X	X	XX	X	X	3
3	MW06-BD		2016/06/30		Water	X	X	XX	X	X	3
4	MW06-100		2016/06/30		Water	X	X	XX	X	X	3
5											
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RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Preston Vowk	2016/07/01	13:00	Laurel Heather	2016/07/04	09:40

B653907_COC

Maxxam
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Success Through Science®

Site Location: WOLVERINE MINE
Your C.O.C. #: 08424515

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/08/04
Report #: R2228704
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B660043
Received: 2016/07/21, 13:25

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2016/07/22	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	3	2016/07/25	2016/07/25	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	3	N/A	2016/07/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Conductance - water	3	N/A	2016/07/25	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	3	N/A	2016/07/26	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	3	N/A	2016/07/27	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	3	N/A	2016/07/26	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	3	N/A	2016/07/27	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/07/27	BBY7SOP-00002	EPA 6020B R2 m
Ammonia-N (Preserved)	3	N/A	2016/07/25	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	3	N/A	2016/07/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	3	N/A	2016/07/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	3	N/A	2016/07/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	3	N/A	2016/07/26	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	3	N/A	2016/07/25	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	2	N/A	2016/07/23	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	1	N/A	2016/08/03	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	3	N/A	2016/07/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	3	2016/07/23	2016/07/25	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	2	2016/07/26	2016/07/26	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/07/29	2016/07/29	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	2	N/A	2016/07/26	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	1	N/A	2016/07/29	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	3	2016/07/25	2016/07/26	BBY6SOP-00034	SM 22 2540 D
Turbidity	3	N/A	2016/07/22	BBY6SOP-00027	SM 22 2130 B m

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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Site Location: WOLVERINE MINE
Your C.O.C. #: 08424515

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/08/04
Report #: R2228704
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B660043
Received: 2016/07/21, 13:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B660043
Report Date: 2016/08/04

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7847		PB7848		PB7849		
Sampling Date		2016/07/19 09:32		2016/07/19 09:56		2016/07/19 11:24		
COC Number		08424515		08424515		08424515		
	UNITS	MW05-5A	QC Batch	MW05-5B	QC Batch	MW06-11S	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	2.00	8340929	0.190	8340929	2.40	0.010	8340929
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8337732	<0.20	8337732	<0.20	0.20	8337732
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	268	8338077	151	8338077	249	0.50	8338077
Acidity (pH 4.5)	mg/L	<0.50	8338504	<0.50	8338113	<0.50	0.50	8338113
Alkalinity (Total as CaCO3)	mg/L	230	8339852	115	8339848	205	0.50	8339848
Acidity (pH 8.3)	mg/L	3.85	8338504	3.01	8338113	1.98	0.50	8338113
Alkalinity (PP as CaCO3)	mg/L	<0.50	8339852	<0.50	8339848	0.88	0.50	8339848
Bicarbonate (HCO3)	mg/L	281	8339852	140	8339848	248	0.50	8339848
Carbonate (CO3)	mg/L	<0.50	8339852	<0.50	8339848	1.06	0.50	8339848
Hydroxide (OH)	mg/L	<0.50	8339852	<0.50	8339848	<0.50	0.50	8339848
Anions								
Orthophosphate (P)	mg/L	0.0098 (1)	8339007	<0.0010 (1)	8349993	0.019 (1)	0.0010	8339007
Dissolved Sulphate (SO4)	mg/L	37.3	8340830	44.1	8340830	37.9	0.50	8340830
Dissolved Chloride (Cl)	mg/L	0.73	8340730	0.83	8340730	0.54	0.50	8340730
Nutrients								
Dissolved Phosphorus (P)	mg/L	0.0185 (1)	8345928	0.0038 (1)	8341159	0.0270 (1)	0.0020	8341159
Total Ammonia (N)	mg/L	0.11	8339587	0.021	8339587	0.22	0.0050	8339587
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8339026	<0.20 (2)	8339026	<0.20 (2)	0.20	8339026
Nitrite (N)	mg/L	<0.20 (2)	8339027	<0.20 (2)	8339027	<0.20 (2)	0.20	8339027
Total Phosphorus (P)	mg/L	0.0158	8345927	0.0032	8341153	0.0260	0.0020	8341153
Physical Properties								
Conductivity	uS/cm	486	8339858	304	8339850	447	1.0	8339850
pH	pH	8.18	8339857	8.06	8339849	8.30		8339849
Physical Properties								
Total Suspended Solids	mg/L	<4.0	8339316	<4.0	8339316	<4.0	4.0	8339316
Total Dissolved Solids	mg/L	278	8338692	202	8338692	286	10	8338692
Turbidity	NTU	8.74	8337881	5.34	8337881	11.0	0.10	8337881

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B660043
Report Date: 2016/08/04

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7847	PB7848	PB7849		
Sampling Date		2016/07/19 09:32	2016/07/19 09:56	2016/07/19 11:24		
COC Number		08424515	08424515	08424515		
	UNITS	MW05-5A	MW05-5B	MW06-11S	RDL	QC Batch
ANIONS						
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	0.010	8340577
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.00603	0.00334	0.00420	0.00050	8340083
Dissolved Antimony (Sb)	mg/L	0.00384	0.000484	0.000097	0.000020	8340083
Dissolved Arsenic (As)	mg/L	0.00542	0.00266	0.00384	0.000020	8340083
Dissolved Barium (Ba)	mg/L	0.0536	0.0399	0.0469	0.000020	8340083
Dissolved Beryllium (Be)	mg/L	0.000025	<0.000010	<0.000010	0.000010	8340083
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	8340083
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	0.010	8340083
Dissolved Cadmium (Cd)	mg/L	0.0000600	0.0000330	<0.0000050	0.0000050	8340083
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	8340083
Dissolved Cobalt (Co)	mg/L	0.000231	0.00145	0.000356	0.0000050	8340083
Dissolved Copper (Cu)	mg/L	0.000433	0.000605	<0.000050	0.000050	8340083
Dissolved Iron (Fe)	mg/L	1.33	0.325	1.14	0.0010	8340083
Dissolved Lead (Pb)	mg/L	0.000666	0.0000700	0.0000290	0.0000050	8340083
Dissolved Lithium (Li)	mg/L	0.00321	0.00157	0.00205	0.00050	8340083
Dissolved Manganese (Mn)	mg/L	0.0983	0.841	0.109	0.000050	8340083
Dissolved Molybdenum (Mo)	mg/L	0.00722	0.00124	0.0143	0.000050	8340083
Dissolved Nickel (Ni)	mg/L	0.00164	0.0123	0.000820	0.000020	8340083
Dissolved Phosphorus (P)	mg/L	0.0144	0.0053	0.0291	0.0020	8340083
Dissolved Selenium (Se)	mg/L	0.000071	0.000058	<0.000040	0.000040	8340083
Dissolved Silicon (Si)	mg/L	4.07	4.19	5.98	0.050	8340083
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	8340083
Dissolved Strontium (Sr)	mg/L	0.145	0.125	0.129	0.000050	8340083
Dissolved Thallium (Tl)	mg/L	0.0000090	0.0000050	0.0000020	0.0000020	8340083
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8340083
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	8340083
Dissolved Uranium (U)	mg/L	0.0275	0.00277	0.00681	0.0000020	8340083
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8340083
Dissolved Zinc (Zn)	mg/L	0.0712	0.0967	0.00079	0.00010	8340083
Dissolved Zirconium (Zr)	mg/L	0.00055	<0.00010	0.00013	0.00010	8340083
Dissolved Calcium (Ca)	mg/L	70.8	48.7	68.2	0.050	8338321
Dissolved Magnesium (Mg)	mg/L	22.0	7.24	19.2	0.050	8338321
RDL = Reportable Detection Limit						

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B660043
Report Date: 2016/08/04

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7847	PB7848	PB7849		
Sampling Date		2016/07/19 09:32	2016/07/19 09:56	2016/07/19 11:24		
COC Number		08424515	08424515	08424515		
	UNITS	MW05-5A	MW05-5B	MW06-11S	RDL	QC Batch
Dissolved Potassium (K)	mg/L	1.56	0.602	1.54	0.050	8338321
Dissolved Sodium (Na)	mg/L	0.284	0.944	1.63	0.050	8338321
Dissolved Sulphur (S)	mg/L	12.4	14.6	12.2	3.0	8338321
RDL = Reportable Detection Limit						

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Maxxam Job #: B660043
Report Date: 2016/08/04

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C
Package 2	7.3°C

Results relate only to the items tested.

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Maxxam Job #: B660043
Report Date: 2016/08/04

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8337881	Turbidity	2016/07/22			105	80 - 120	<0.10	NTU	NC	20
8338113	Acidity (pH 4.5)	2016/07/22					<0.50	mg/L	NC	20
8338113	Acidity (pH 8.3)	2016/07/22			99	80 - 120	<0.50	mg/L	NC	20
8338504	Acidity (pH 4.5)	2016/07/22					<0.50	mg/L	NC	20
8338504	Acidity (pH 8.3)	2016/07/22			103	80 - 120	<0.50	mg/L	2.3	20
8338692	Total Dissolved Solids	2016/07/25	98	80 - 120	118	80 - 120	<10	mg/L	4.7	20
8339007	Orthophosphate (P)	2016/07/23	97	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20
8339026	Nitrate plus Nitrite (N)	2016/07/23			97	80 - 120	<0.0020	mg/L		
8339027	Nitrite (N)	2016/07/23			97	80 - 120	<0.0020	mg/L		
8339316	Total Suspended Solids	2016/07/26	106	80 - 120	100	80 - 120	<4.0	mg/L	NC	20
8339587	Total Ammonia (N)	2016/07/25	NC	80 - 120	103	80 - 120	<0.0050	mg/L	1.3	20
8339848	Alkalinity (PP as CaCO3)	2016/07/25					<0.50	mg/L	6.5	20
8339848	Alkalinity (Total as CaCO3)	2016/07/25	NC	80 - 120	98	80 - 120	<0.50	mg/L	1.6	20
8339848	Bicarbonate (HCO3)	2016/07/25					<0.50	mg/L	1.4	20
8339848	Carbonate (CO3)	2016/07/25					<0.50	mg/L	6.5	20
8339848	Hydroxide (OH)	2016/07/25					<0.50	mg/L	NC	20
8339849	pH	2016/07/25			101	97 - 103			0.72	N/A
8339850	Conductivity	2016/07/25			99	80 - 120	<1.0	uS/cm	0.38	20
8339852	Alkalinity (PP as CaCO3)	2016/07/25					<0.50	mg/L	NC	20
8339852	Alkalinity (Total as CaCO3)	2016/07/25	NC	80 - 120	100	80 - 120	<0.50	mg/L	1.2	20
8339852	Bicarbonate (HCO3)	2016/07/25					<0.50	mg/L	1.2	20
8339852	Carbonate (CO3)	2016/07/25					<0.50	mg/L	NC	20
8339852	Hydroxide (OH)	2016/07/25					<0.50	mg/L	NC	20
8339857	pH	2016/07/25			101	97 - 103			0.74	N/A
8339858	Conductivity	2016/07/25			100	80 - 120	<1.0	uS/cm	0.41	20
8340083	Dissolved Aluminum (Al)	2016/07/27	112	80 - 120	110	80 - 120	0.00069, RDL=0.00050	mg/L	NC	20
8340083	Dissolved Antimony (Sb)	2016/07/27	101	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8340083	Dissolved Arsenic (As)	2016/07/27	102	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8340083	Dissolved Barium (Ba)	2016/07/27	104	80 - 120	104	80 - 120	<0.000020	mg/L	NC	20
8340083	Dissolved Beryllium (Be)	2016/07/27	96	80 - 120	96	80 - 120	<0.000010	mg/L	NC	20
8340083	Dissolved Bismuth (Bi)	2016/07/27	104	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8340083	Dissolved Boron (B)	2016/07/27	95	80 - 120	97	80 - 120	<0.010	mg/L	NC	20
8340083	Dissolved Cadmium (Cd)	2016/07/27	103	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8340083	Dissolved Chromium (Cr)	2016/07/27	101	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
8340083	Dissolved Cobalt (Co)	2016/07/27	102	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8340083	Dissolved Copper (Cu)	2016/07/27	102	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8340083	Dissolved Iron (Fe)	2016/07/27	107	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20
8340083	Dissolved Lead (Pb)	2016/07/27	107	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8340083	Dissolved Lithium (Li)	2016/07/27	99	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
8340083	Dissolved Manganese (Mn)	2016/07/27	101	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8340083	Dissolved Molybdenum (Mo)	2016/07/27	100	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8340083	Dissolved Nickel (Ni)	2016/07/27	101	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8340083	Dissolved Phosphorus (P)	2016/07/27					<0.0020	mg/L	NC	20
8340083	Dissolved Selenium (Se)	2016/07/27	103	80 - 120	104	80 - 120	<0.000040	mg/L	NC	20
8340083	Dissolved Silicon (Si)	2016/07/27					<0.050	mg/L	NC	20
8340083	Dissolved Silver (Ag)	2016/07/27	102	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
8340083	Dissolved Strontium (Sr)	2016/07/27	103	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8340083	Dissolved Thallium (Tl)	2016/07/27	103	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8340083	Dissolved Tin (Sn)	2016/07/27	101	80 - 120	86	80 - 120	<0.00020	mg/L	NC	20
8340083	Dissolved Titanium (Ti)	2016/07/27	92	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8340083	Dissolved Uranium (U)	2016/07/27	107	80 - 120	110	80 - 120	0.0000020, RDL=0.0000020	mg/L	NC	20
8340083	Dissolved Vanadium (V)	2016/07/27	107	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20
8340083	Dissolved Zinc (Zn)	2016/07/27	106	80 - 120	106	80 - 120	<0.00010	mg/L	NC	20
8340083	Dissolved Zirconium (Zr)	2016/07/27					<0.00010	mg/L	NC	20
8340577	Bromide (Br)	2016/07/26	95	78 - 120	99	80 - 120	<0.010	mg/L	NC	20
8340730	Dissolved Chloride (Cl)	2016/07/25	98	80 - 120	107	80 - 120	<0.50	mg/L	NC	20
8340830	Dissolved Sulphate (SO4)	2016/07/25	NC	80 - 120	101	80 - 120	0.64, RDL=0.50	mg/L	4.4	20
8340929	Fluoride (F)	2016/07/26	NC	80 - 120	94	80 - 120	0.015, RDL=0.010	mg/L	0	20
8341153	Total Phosphorus (P)	2016/07/26	94	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8341159	Dissolved Phosphorus (P)	2016/07/26	NC	80 - 120	109	80 - 120	<0.0020	mg/L	1.1	20
8345927	Total Phosphorus (P)	2016/07/29			108	80 - 120	<0.0020	mg/L		

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Maxxam Job #: B660043
Report Date: 2016/08/04

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8345928	Dissolved Phosphorus (P)	2016/07/29			108	80 - 120	<0.0020	mg/L		
8349993	Orthophosphate (P)	2016/08/03	95	80 - 120	94	80 - 120	<0.0010	mg/L	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

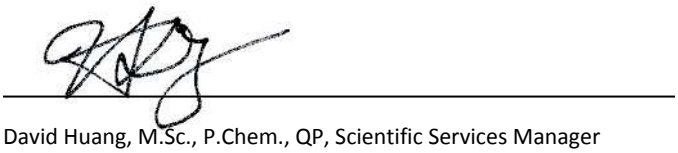
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Maxxam Job #: B660043
Report Date: 2016/08/04

YUKON ZINC CORPORATION
Site Location: WOLVERINE MINE

VALIDATION SIGNATURE PAGE

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



David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY RE(

COC (

08424515

BBY FCD-00077/05

Page 1 of 1

Invoice Information		Report Information (if differs from invoice)		Project Information (where		Time (TAT) Required
Company Name:	Yukon Zinc Corporation	Company Name:	Yukon Zinc Corporation	Quotation #:		☐ Regular TAT 5 days (Most analyses)
Contact Name:	Alex Wu	Contact Name:	Alex Wu	P.O. #/ AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	705 - 1030 West Georgia Street	Address:	705 - 1030 West Georgia Street	Project #:		Rush TAT (Surcharges will be applied)
	Vancouver PC: V6E 2Y3		Vancouver PC: V6E 2Y3	Site Location:	Wolverine Mine	☐ Same Day ☐ 2 Days
Phone:	604-684-5474	Phone:	604-684-5474	Site #:		☐ 1 Day ☐ 3 Days
Email:	alex.wu@yukonzinc.com	Email:	YZC GROUP	Sampled By:		Date Required:

Regulatory Criteria	Special Instructions
☐ BC CSR Soil ☐ BC CSR Water	☐ Return Cooler
☐ CCME (Specify) ☐ Other (Specify)	☐ Ship Sample Bottles (Please Specify)
☐ Drinking Water ☐ BC Water Quality	

Rush Confirmation #:

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	BTEX/VPH	EPH	PAH	CCME-PHC	Dissolved Metals Preserved?	Dissolved Metals Filtered?	Dissolved Mercury Filtered?	Total Metals Field Preserved?	Total Mercury Field Preserved?	Chloride	Fluoride	TDS	TSS	Sulphate	BOD	pH	Alkalinity	Conductivity	Ammonia	Nitrate	Nitrite	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
1	~~T1~~				~~WATER~~					X			X		X		X	X		X	X		X					
2	MW05-5A		16.7.19	09:32	WATER					X					X		X	X		X	X		X				3	
3	MW05-5B		16.7.19	09:56	WATER					X					X		X	X		X	X		X				3	
4	MW06-11S		16.7.19	11:24	WATER																						3	
5																												
6																												
7																												
8																												
9																												
10																												

LABORATORY USE ONLY

CUSTODY SEAL: Y / N — Present / Intact

COOLER TEMPERATURES: 9.7 / 6.8 / 0

COOLING MEDIA PRESENT: Y / N

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
[signature]	2016/7/20	06:10	[signature] Laurel Heathier	2016/07/21	13:25

B660043_COC

Your C.O.C. #: 08424516

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/08/04
Report #: R2229283
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B660054
Received: 2016/07/21, 13:25

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	9	N/A	2016/07/22	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	9	2016/07/22	2016/07/22	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	7	N/A	2016/07/22	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride by Automated Colourimetry	2	N/A	2016/07/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide SAD (strong acid dissociable)	3	N/A	2016/07/22	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	3	N/A	2016/07/22	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	2	N/A	2016/07/22	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	9	N/A	2016/07/22	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	9	N/A	2016/07/22	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	1	N/A	2016/07/26	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3)	7	N/A	2016/07/27	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3)	1	N/A	2016/08/03	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	7	N/A	2016/07/27	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	2	N/A	2016/07/29	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	9	N/A	2016/07/26	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	7	N/A	2016/07/27	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	2	N/A	2016/07/29	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	5	N/A	2016/07/26	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/07/27	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	1	N/A	2016/07/29	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	1	2016/07/25	2016/07/25	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Digested LL (total)	1	2016/07/28	2016/08/02	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2016/07/26	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2016/07/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2016/08/03	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	5	N/A	2016/07/26	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	2	N/A	2016/07/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	9	N/A	2016/07/25	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	9	N/A	2016/07/22	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	9	N/A	2016/07/22	BBY6SOP-00010	SM 22 4500-NO3- I m

Your C.O.C. #: 08424516

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/08/04
Report #: R2229283
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B660054
Received: 2016/07/21, 13:25

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Nitrogen - Nitrate (as N)	9	N/A	2016/07/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	1	N/A	2016/07/26	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	8	N/A	2016/07/29	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	9	N/A	2016/07/22	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	6	N/A	2016/07/22	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	1	N/A	2016/07/26	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	2	N/A	2016/07/28	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	6	N/A	2016/07/22	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	3	N/A	2016/07/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	9	2016/07/22	2016/07/23	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	2	2016/07/26	2016/07/26	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	6	2016/07/22	2016/07/22	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/07/28	2016/07/28	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	8	N/A	2016/07/26	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	1	N/A	2016/07/28	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	9	2016/07/22	2016/07/23	BBY6SOP-00034	SM 22 2540 D
Turbidity	9	N/A	2016/07/21	BBY6SOP-00027	SM 22 2130 B m

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) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Your C.O.C. #: 08424516

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/08/04
Report #: R2229283
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B660054
Received: 2016/07/21, 13:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7901		PB7902		PB7903	PB7904		
Sampling Date		2016/07/18 10:40		2016/07/18 13:50		2016/07/18 11:21	2016/07/18 11:38		
COC Number		08424516		08424516		08424516	08424516		
	UNITS	W22	QC Batch	W31	QC Batch	W71	W72	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.081	8338126	0.033	8338126	0.680	0.180	0.010	8338126
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	122	8336330	81.2	8336330	395	210	0.50	8336330
Nitrate (N)	mg/L	<0.20	8336556	<0.20	8336556	<0.20	<0.20	0.20	8336556
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	121	8336533	77.9	8336533	392	205	0.50	8336533
Dissolved Organic Carbon (C)	mg/L		8339498	0.65	8339498			0.50	8339498
Acidity (pH 4.5)	mg/L	<0.50	8338094	<0.50	8338094	<0.50	<0.50	0.50	8338094
Alkalinity (Total as CaCO3)	mg/L	90.5	8338123	69.2	8338148	257	149	0.50	8338148
Acidity (pH 8.3)	mg/L	<0.50	8338094	<0.50	8338094	<0.50	<0.50	0.50	8338094
Alkalinity (PP as CaCO3)	mg/L	<0.50	8338123	<0.50	8338148	4.48	<0.50	0.50	8338148
Bicarbonate (HCO3)	mg/L	110	8338123	84.4	8338148	302	181	0.50	8338148
Carbonate (CO3)	mg/L	<0.50	8338123	<0.50	8338148	5.38	<0.50	0.50	8338148
Hydroxide (OH)	mg/L	<0.50	8338123	<0.50	8338148	<0.50	<0.50	0.50	8338148
Anions									
Orthophosphate (P)	mg/L	0.0011 (1)	8338125	<0.0010 (1)	8338125	0.010 (1)	0.014 (1)	0.0010	8338125
Dissolved Sulphate (SO4)	mg/L	27.2	8340984	8.86	8338518	109	56.3	0.50	8338518
Dissolved Chloride (Cl)	mg/L	0.71	8338501	0.81	8338516	0.96	1.2	0.50	8338516
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.0051 (1)	8338270	0.0034	8341152	0.0166 (1)	0.0232 (1)	0.0020	8338270
Total Ammonia (N)	mg/L	0.034	8338583	0.029	8338583	0.033	0.046	0.0050	8338583
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8339012	<0.20 (2)	8339012	<0.20 (2)	<0.20 (2)	0.20	8339012
Nitrite (N)	mg/L	<0.20 (2)	8339013	<0.20 (2)	8339013	<0.20 (2)	<0.20 (2)	0.20	8339013
Total Phosphorus (P)	mg/L	0.0049	8341153	0.0034	8341153	0.0170	0.0244	0.0020	8341153
Physical Properties									
Conductivity	uS/cm	221	8338131	154	8338151	656	374	1.0	8338151
pH	pH	8.17	8338130	8.03	8338150	8.38	8.29		8338150
Physical Properties									
Total Suspended Solids	mg/L	<4.0	8337493	<4.0	8337495	<4.0	<4.0	4.0	8337495

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7901		PB7902		PB7903	PB7904		
Sampling Date		2016/07/18 10:40		2016/07/18 13:50		2016/07/18 11:21	2016/07/18 11:38		
COC Number		08424516		08424516		08424516	08424516		
	UNITS	W22	QC Batch	W31	QC Batch	W71	W72	RDL	QC Batch
Total Dissolved Solids	mg/L	128	8337750	86	8337750	408	214	10	8337750
Turbidity	NTU	0.35	8337050	0.11	8337050	0.61	0.55	0.10	8337050
RDL = Reportable Detection Limit									

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7905		PB7906			PB7907		
Sampling Date		2016/07/18 11:54		2016/07/18 13:29			2016/07/18 14:05		
COC Number		08424516		08424516			08424516		
	UNITS	W73	QC Batch	W82	RDL	QC Batch	T1	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.048	8338126	0.120	0.010	8338126	0.190	0.010	8338126
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	123	8336330	155	0.50	8336330	1540	0.50	8336330
Nitrate (N)	mg/L	<0.20	8336556	<0.20	0.20	8336556	<0.20	0.20	8336556
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L				0.0050	8338082	0.153	0.0050	8338082
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00050	8338083	0.0145	0.00050	8338083
Dissolved Hardness (CaCO3)	mg/L	124	8336533	158	0.50	8336533	1510	0.50	8336533
Dissolved Organic Carbon (C)	mg/L		8339498	1.18	0.50	8339498		0.50	8339498
Acidity (pH 4.5)	mg/L	<0.50	8338094	<0.50	0.50	8338094	<0.50	0.50	8338094
Alkalinity (Total as CaCO3)	mg/L	98.3	8338123	104	0.50	8338148	27.8	0.50	8338123
Acidity (pH 8.3)	mg/L	<0.50	8338094	0.67	0.50	8338094	4.14	0.50	8338094
Alkalinity (PP as CaCO3)	mg/L	<0.50	8338123	<0.50	0.50	8338148	<0.50	0.50	8338123
Bicarbonate (HCO3)	mg/L	120	8338123	127	0.50	8338148	33.9	0.50	8338123
Carbonate (CO3)	mg/L	<0.50	8338123	<0.50	0.50	8338148	<0.50	0.50	8338123
Hydroxide (OH)	mg/L	<0.50	8338123	<0.50	0.50	8338148	<0.50	0.50	8338123
Anions									
Orthophosphate (P)	mg/L	0.0021 (1)	8338125	0.011 (1)	0.0010	8338125	0.0011 (1)	0.0010	8341385
Dissolved Sulphate (SO4)	mg/L	19.5	8340984	50.7	0.50	8338518	1450 (2)	5.0	8338503
Dissolved Chloride (Cl)	mg/L	<0.50	8340973	1.0	0.50	8338516	260 (2)	5.0	8338501
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.0074 (1)	8338270	0.0238	0.0020	8341152	0.0945 (1)	0.0020	8343791
Total Ammonia (N)	mg/L	0.022	8338583	0.047	0.0050	8338583	0.46	0.0050	8338583
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8339012	<0.20 (3)	0.20	8339012	<0.20 (3)	0.20	8339012
Nitrite (N)	mg/L	<0.20 (3)	8339013	<0.20 (3)	0.20	8339013	<0.20 (3)	0.20	8339013
Total Phosphorus (P)	mg/L	0.0046	8341153	0.0247	0.0020	8341153	0.0998	0.0020	8343813
Physical Properties									
Conductivity	uS/cm	221	8338131	298	1.0	8338151	2960	1.0	8338131

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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

(3) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7905		PB7906			PB7907		
Sampling Date		2016/07/18 11:54		2016/07/18 13:29			2016/07/18 14:05		
COC Number		08424516		08424516			08424516		
	UNITS	**W73**	**QC Batch**	**W82**	**RDL**	**QC Batch**	**T1**	**RDL**	**QC Batch**
pH	pH	8.12	8338130	8.14		8338150	7.56		8338130
Physical Properties									
Total Suspended Solids	mg/L	<4.0	8337495	<4.0	4.0	8337495	4.5	4.0	8337495
Total Dissolved Solids	mg/L	130	8337750	182	10	8337750	2750	10	8337750
Turbidity	NTU	0.51	8337050	1.29	0.10	8337050	3.73	0.10	8337050
RDL = Reportable Detection Limit									

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RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7908			PB7909		
Sampling Date		2016/07/18 14:32			2016/07/18 15:01		
COC Number		08424516			08424516		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	0.220	0.010	8338126	0.280	0.010	8338126
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	LAB	N/A	8340729
Total Hardness (CaCO3)	mg/L	2110	0.50	8341901	1930	0.50	8336330
Nitrate (N)	mg/L	<0.20	0.20	8336556	<0.20	0.20	8336556
Misc. Inorganics							
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.219	0.0050	8338082	0.380	0.0050	8338082
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.0168 (1)	0.0050	8338083	0.0264	0.0050	8338083
Dissolved Hardness (CaCO3)	mg/L	1890	0.50	8342977	2160	0.50	8342977
Acidity (pH 4.5)	mg/L	<0.50	0.50	8338094	<0.50	0.50	8338094
Alkalinity (Total as CaCO3)	mg/L	<0.50	0.50	8338123	21.7	0.50	8338148
Acidity (pH 8.3)	mg/L	16.7	0.50	8338094	8.74	0.50	8338094
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8338123	<0.50	0.50	8338148
Bicarbonate (HCO3)	mg/L	<0.50	0.50	8338123	26.5	0.50	8338148
Carbonate (CO3)	mg/L	<0.50	0.50	8338123	<0.50	0.50	8338148
Hydroxide (OH)	mg/L	<0.50	0.50	8338123	<0.50	0.50	8338148
Anions							
Orthophosphate (P)	mg/L	0.17 (2)	0.0010	8343762	1.2 (3)	0.010	8343762
Dissolved Sulphate (SO4)	mg/L	1880 (4)	50	8340984	1820 (4)	5.0	8338518
Dissolved Chloride (Cl)	mg/L	570 (4)	50	8340973	1100 (4)	5.0	8338516
Nutrients							
Dissolved Phosphorus (P)	mg/L	0.0397 (5)	0.0020	8338270	0.179 (5)	0.0020	8338270
Total Ammonia (N)	mg/L	0.92	0.0050	8338583	3.3 (4)	0.050	8338583

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) RDL raised due to sample matrix interference.

(2) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis. Orthophosphate greater than total phosphate result confirmed by reanalysis.

(3) Detection limits raised due to dilution to bring analyte within the calibrated range.Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis. Orthophosphate greater than total phosphate result confirmed by reanalysis.

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

(5) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B660054
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PB7908			PB7909		
Sampling Date		2016/07/18 14:32			2016/07/18 15:01		
COC Number		08424516			08424516		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
Nitrate plus Nitrite (N)	mg/L	<0.20 (1)	0.20	8339012	<0.20 (1)	0.20	8339012
Nitrite (N)	mg/L	<0.20 (1)	0.20	8339013	<0.20 (1)	0.20	8339013
Total Phosphorus (P)	mg/L	0.128	0.0020	8341153	0.176	0.0020	8341153
Physical Properties							
Conductivity	uS/cm	3780	1.0	8338131	4600	1.0	8338151
pH	pH	4.75		8338130	7.09		8338150
Physical Properties							
Total Suspended Solids	mg/L	<4.0	4.0	8337495	182 (2)	12	8337495
Total Dissolved Solids	mg/L	3570 (3)	10	8337750	4020 (2)	50	8337750
Turbidity	NTU	5.39	0.10	8337050	338	0.10	8337050

RDL = Reportable Detection Limit

(1) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) RDL raised due to high concentration of solids in the sample.

(3) Particulates < 1.5 um present in sample.

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7901	PB7902	PB7903	PB7904	PB7905		
Sampling Date		2016/07/18 10:40	2016/07/18 13:50	2016/07/18 11:21	2016/07/18 11:38	2016/07/18 11:54		
COC Number		08424516	08424516	08424516	08424516	08424516		
	UNITS	W22	W31	W71	W72	W73	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8340629
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00503	0.00746	0.00323	0.00287	0.00512	0.00050	8338375
Dissolved Antimony (Sb)	mg/L	0.000068	<0.000020	0.000492	0.000258	0.000112	0.000020	8338375
Dissolved Arsenic (As)	mg/L	0.000256	0.000134	0.000323	0.00166	0.000259	0.000020	8338375
Dissolved Barium (Ba)	mg/L	0.0670	0.0152	0.0546	0.0852	0.0680	0.000020	8338375
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8338375
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8338375
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8338375
Dissolved Cadmium (Cd)	mg/L	0.0000210	<0.0000050	0.00294	0.000328	0.0000130	0.0000050	8338375
Dissolved Chromium (Cr)	mg/L	0.00016	<0.00010	<0.00010	<0.00010	0.00027	0.00010	8338375
Dissolved Cobalt (Co)	mg/L	0.0000160	0.0000170	0.0000640	0.0000370	0.0000170	0.0000050	8338375
Dissolved Copper (Cu)	mg/L	0.000662	0.000929	0.000571	0.000545	0.00146 (1)	0.000050	8338375
Dissolved Iron (Fe)	mg/L	0.0150	0.0012	0.0165	0.0832	0.0318	0.0010	8338375
Dissolved Lead (Pb)	mg/L	0.000504	0.0000260	0.000309 (1)	<0.0000050	0.000625 (1)	0.0000050	8338375
Dissolved Lithium (Li)	mg/L	0.00233	<0.00050	0.00266	0.00215	0.00067	0.00050	8338375
Dissolved Manganese (Mn)	mg/L	0.00133	0.000057	0.00634	0.0646	0.00452	0.000050	8338375
Dissolved Molybdenum (Mo)	mg/L	0.000707	0.000337	0.00538	0.00304	0.000502	0.000050	8338375
Dissolved Nickel (Ni)	mg/L	0.000701	0.000066	0.0305	0.00475	0.000820	0.000020	8338375
Dissolved Phosphorus (P)	mg/L	0.0040	0.0029	0.0148	0.0188	0.0051	0.0020	8338375
Dissolved Selenium (Se)	mg/L	0.000448	0.000191	0.00521	0.00207	0.000641	0.000040	8338375
Dissolved Silicon (Si)	mg/L	3.96	3.39	4.43	3.98	4.30	0.050	8338375
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	0.0000050	8338375
Dissolved Strontium (Sr)	mg/L	0.122	0.0185	0.263	0.228	0.110	0.000050	8338375
Dissolved Thallium (Tl)	mg/L	<0.0000020	<0.0000020	0.0000030	<0.0000020	<0.0000020	0.0000020	8338375
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8338375
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8338375
Dissolved Uranium (U)	mg/L	0.000951	0.0000200	0.0116	0.00149	0.000344	0.0000020	8338375
Dissolved Vanadium (V)	mg/L	<0.00020	0.00049	0.00024	<0.00020	<0.00020	0.00020	8338375
Dissolved Zinc (Zn)	mg/L	0.00280	0.00055	0.568	0.0496	0.00221 (1)	0.00010	8338375
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8338375
Dissolved Calcium (Ca)	mg/L	32.0	28.4	106	52.9	33.5	0.050	8336598
Dissolved Magnesium (Mg)	mg/L	9.99	1.66	30.8	17.8	9.74	0.050	8336598

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7901	PB7902	PB7903	PB7904	PB7905		
Sampling Date		2016/07/18 10:40	2016/07/18 13:50	2016/07/18 11:21	2016/07/18 11:38	2016/07/18 11:54		
COC Number		08424516	08424516	08424516	08424516	08424516		
	UNITS	W22	W31	W71	W72	W73	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.847	0.379	0.668	0.673	0.274	0.050	8336598
Dissolved Sodium (Na)	mg/L	1.73	1.25	0.898	1.59	1.25	0.050	8336598
Dissolved Sulphur (S)	mg/L	8.2	<3.0	38.0	17.5	6.2	3.0	8336598
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.00945	0.00886	0.0128	0.0123	0.0108	0.00050	8337989
Total Antimony (Sb)	mg/L	0.000073	<0.000020	0.000493	0.000268	0.000109	0.000020	8337989
Total Arsenic (As)	mg/L	0.000230	0.000185	0.000326	0.00197	0.000251	0.000020	8337989
Total Barium (Ba)	mg/L	0.0699	0.0152	0.0559	0.0902	0.0729	0.000020	8337989
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8337989
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8337989
Total Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8337989
Total Cadmium (Cd)	mg/L	0.0000290	0.0000080	0.00316	0.000479	0.0000110	0.0000050	8337989
Total Chromium (Cr)	mg/L	0.00021	<0.00010	<0.00010	0.00011	0.00027	0.00010	8337989
Total Cobalt (Co)	mg/L	0.0000190	0.0000190	0.0000800	0.0000600	0.0000280	0.0000050	8337989
Total Copper (Cu)	mg/L	0.000756	0.000962	0.000585	0.000752	0.00115	0.000050	8337989
Total Iron (Fe)	mg/L	0.0286	0.0025	0.0532	0.145	0.0598	0.0010	8337989
Total Lead (Pb)	mg/L	0.000927	0.000104	0.0000620	0.000102	0.0000310	0.0000050	8337989
Total Lithium (Li)	mg/L	0.00239	<0.00050	0.00270	0.00241	0.00077	0.00050	8337989
Total Manganese (Mn)	mg/L	0.00295	0.000108	0.00849	0.0818	0.0141	0.000050	8337989
Total Molybdenum (Mo)	mg/L	0.000716	0.000354	0.00555	0.00337	0.000567	0.000050	8337989
Total Nickel (Ni)	mg/L	0.000882	0.000073	0.0314	0.00516	0.000797	0.000020	8337989
Total Phosphorus (P)	mg/L	0.0061	0.0043	0.0170	0.0248	0.0072	0.0020	8337989
Total Selenium (Se)	mg/L	0.000451	0.000212	0.00510	0.00219	0.000674	0.000040	8337989
Total Silicon (Si)	mg/L	3.87	3.36	4.47	4.02	4.48	0.050	8337989
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8337989
Total Strontium (Sr)	mg/L	0.126	0.0184	0.270	0.248	0.116	0.000050	8337989
Total Thallium (Tl)	mg/L	0.0000020	<0.0000020	0.0000040	0.0000020	<0.0000020	0.0000020	8337989
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8337989
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8337989
Total Uranium (U)	mg/L	0.000954	0.0000220	0.0117	0.00161	0.000383	0.0000020	8337989
Total Vanadium (V)	mg/L	<0.00020	0.00052	0.00029	0.00023	<0.00020	0.00020	8337989
Total Zinc (Zn)	mg/L	0.00454	0.00064	0.581	0.0560	0.00100	0.00010	8337989
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8337989
Total Calcium (Ca)	mg/L	32.5	29.7	106	53.2	34.3	0.050	8336813
Total Magnesium (Mg)	mg/L	9.97	1.70	31.7	18.7	9.08	0.050	8336813

RDL = Reportable Detection Limit

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7901	PB7902	PB7903	PB7904	PB7905		
Sampling Date		2016/07/18 10:40	2016/07/18 13:50	2016/07/18 11:21	2016/07/18 11:38	2016/07/18 11:54		
COC Number		08424516	08424516	08424516	08424516	08424516		
	UNITS	**W22**	**W31**	**W71**	**W72**	**W73**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.883	0.385	0.687	0.757	0.265	0.050	8336813
Total Sodium (Na)	mg/L	1.78	1.27	0.917	1.66	1.17	0.050	8336813
Total Sulphur (S)	mg/L	7.7	3.1	39.8	20.4	6.8	3.0	8336813
RDL = Reportable Detection Limit								

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7906		PB7907			PB7908		
Sampling Date		2016/07/18 13:29		2016/07/18 14:05			2016/07/18 14:32		
COC Number		08424516		08424516			08424516		
	UNITS	W82	RDL	T1	RDL	QC Batch	T2	RDL	QC Batch
ANIONS									
Bromide (Br)	mg/L	<0.010	0.010	<0.10	0.10	8340629	0.11	0.10	8340629
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	mg/L	0.0142	0.00050	0.0116	0.0025	8338375	0.0699	0.0025	8343389
Dissolved Antimony (Sb)	mg/L	0.000284	0.000020	0.0452	0.00010	8338375	0.0696	0.00010	8343389
Dissolved Arsenic (As)	mg/L	0.000182	0.000020	0.00531	0.00010	8338375	0.0115	0.00010	8343389
Dissolved Barium (Ba)	mg/L	0.158	0.000020	0.0745	0.00010	8338375	0.101	0.00010	8343389
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	<0.000050	0.000050	8338375	<0.000050	0.000050	8343389
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	<0.000025	0.000025	8338375	<0.000025	0.000025	8343389
Dissolved Boron (B)	mg/L	<0.010	0.010	<0.050	0.050	8338375	<0.050	0.050	8343389
Dissolved Cadmium (Cd)	mg/L	0.00120	0.0000050	0.0116	0.000025	8338375	0.0107	0.000025	8343389
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	<0.00050	0.00050	8338375	<0.00050	0.00050	8343389
Dissolved Cobalt (Co)	mg/L	0.000242	0.0000050	0.00180	0.000025	8338375	0.00193	0.000025	8343389
Dissolved Copper (Cu)	mg/L	0.00211	0.000050	0.303	0.00025	8338375	0.708	0.00025	8343389
Dissolved Iron (Fe)	mg/L	0.129	0.0010	0.0478	0.0050	8338375	0.924	0.0050	8343389
Dissolved Lead (Pb)	mg/L	0.000638	0.0000050	0.0336	0.000025	8338375	0.291	0.000025	8343389
Dissolved Lithium (Li)	mg/L	0.00067	0.00050	0.0114	0.0025	8338375	0.0152	0.0025	8343389
Dissolved Manganese (Mn)	mg/L	0.0846	0.000050	0.376	0.00025	8338375	0.390	0.00025	8343389
Dissolved Molybdenum (Mo)	mg/L	0.000369	0.000050	0.0349	0.00025	8338375	0.143	0.00025	8343389
Dissolved Nickel (Ni)	mg/L	0.0101	0.000020	0.00720	0.00010	8338375	0.00811	0.00010	8343389
Dissolved Phosphorus (P)	mg/L	0.0123	0.0020	0.081	0.010	8338375	0.134	0.010	8343389
Dissolved Selenium (Se)	mg/L	0.00240	0.000040	2.16	0.00020	8338375	2.38	0.00020	8343389
Dissolved Silicon (Si)	mg/L	3.43	0.050	1.91	0.25	8338375	2.16	0.25	8343389
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	0.00238	0.000025	8338375	0.00517	0.000025	8343389
Dissolved Strontium (Sr)	mg/L	0.128	0.000050	2.15	0.00025	8338375	3.04	0.00025	8343389
Dissolved Thallium (Tl)	mg/L	0.0000060	0.0000020	0.00126	0.000010	8338375	0.00153	0.000010	8343389
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	<0.0010	0.0010	8338375	<0.0010	0.0010	8343389
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	<0.0025	0.0025	8338375	<0.0025	0.0025	8343389
Dissolved Uranium (U)	mg/L	0.000368	0.0000020	0.000630	0.000010	8338375	0.000711	0.000010	8343389
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	<0.0010	0.0010	8338375	<0.0010	0.0010	8343389
Dissolved Zinc (Zn)	mg/L	0.148	0.00010	1.29	0.00050	8338375	1.29	0.00050	8343389
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	<0.00050	0.00050	8338375	<0.00050	0.00050	8343389
Dissolved Calcium (Ca)	mg/L	54.9	0.050	599	0.25	8336598	754	0.25	8341847
Dissolved Magnesium (Mg)	mg/L	4.97	0.050	2.51	0.25	8336598	2.50	0.25	8341847
Dissolved Potassium (K)	mg/L	0.984	0.050	41.1	0.25	8336598	65.0	0.25	8341847

RDL = Reportable Detection Limit

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7906		PB7907			PB7908		
Sampling Date		2016/07/18 13:29		2016/07/18 14:05			2016/07/18 14:32		
COC Number		08424516		08424516			08424516		
	UNITS	W82	RDL	T1	RDL	QC Batch	T2	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	1.40	0.050	166	0.25	8336598	241	0.25	8341847
Dissolved Sulphur (S)	mg/L	17.0	3.0	829	15	8336598	977	15	8341847
Total Metals by ICPMS									
Total Aluminum (Al)	mg/L	0.0352	0.00050	0.0172	0.0025	8337989	0.0689	0.0030	8343616
Total Antimony (Sb)	mg/L	0.000289	0.000020	0.0451	0.00010	8337989	0.0701	0.000020	8343616
Total Arsenic (As)	mg/L	0.000226	0.000020	0.00607	0.00010	8337989	0.0124	0.000020	8343616
Total Barium (Ba)	mg/L	0.163	0.000020	0.0760	0.00010	8337989	0.124	0.000050	8343616
Total Beryllium (Be)	mg/L	<0.000010	0.000010	<0.000050	0.000050	8337989	0.000012	0.000010	8343616
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	<0.000025	0.000025	8337989	0.000016	0.000010	8343616
Total Boron (B)	mg/L	<0.010	0.010	<0.050	0.050	8337989	0.025	0.010	8343616
Total Cadmium (Cd)	mg/L	0.00154	0.0000050	0.0115	0.000025	8337989	0.0100	0.0000050	8343616
Total Chromium (Cr)	mg/L	<0.00010	0.00010	<0.00050	0.00050	8337989	0.00011	0.00010	8343616
Total Cobalt (Co)	mg/L	0.000373	0.0000050	0.00186	0.000025	8337989	0.00176	0.000010	8343616
Total Copper (Cu)	mg/L	0.00322	0.000050	0.364	0.00025	8337989	0.659	0.00020	8343616
Total Iron (Fe)	mg/L	0.321	0.0010	0.279	0.0050	8337989	0.912	0.0050	8343616
Total Lead (Pb)	mg/L	0.000725	0.0000050	0.102	0.000025	8337989	0.291	0.000020	8343616
Total Lithium (Li)	mg/L	0.00063	0.00050	0.0116	0.0025	8337989	0.0158	0.00050	8343616
Total Manganese (Mn)	mg/L	0.111	0.000050	0.386	0.00025	8337989	0.427	0.00010	8343616
Total Molybdenum (Mo)	mg/L	0.000388	0.000050	0.0349	0.00025	8337989	0.138	0.000050	8343616
Total Nickel (Ni)	mg/L	0.0108	0.000020	0.00748	0.00010	8337989	0.00746	0.00010	8343616
Total Phosphorus (P)	mg/L	0.0258	0.0020	0.092	0.010	8337989			
Total Selenium (Se)	mg/L	0.00241	0.000040	2.09	0.00020	8337989	2.66	0.000040	8343616
Total Silicon (Si)	mg/L	3.51	0.050	1.92	0.25	8337989	1.98	0.050	8343616
Total Silver (Ag)	mg/L	0.0000060	0.0000050	0.00417	0.000025	8337989	0.00685	0.000010	8343616
Total Strontium (Sr)	mg/L	0.134	0.000050	2.19	0.00025	8337989	3.62	0.000050	8343616
Total Thallium (Tl)	mg/L	0.0000070	0.0000020	0.00136	0.000010	8337989	0.00156	0.0000020	8343616
Total Tin (Sn)	mg/L	<0.00020	0.00020	<0.0010	0.0010	8337989	<0.00020	0.00020	8343616
Total Titanium (Ti)	mg/L	0.00069	0.00050	<0.0025	0.0025	8337989	<0.0020	0.0020	8343616
Total Uranium (U)	mg/L	0.000380	0.0000020	0.000636	0.000010	8337989	0.00103	0.0000050	8343616
Total Vanadium (V)	mg/L	<0.00020	0.00020	<0.0010	0.0010	8337989	<0.00020	0.00020	8343616
Total Zinc (Zn)	mg/L	0.163	0.00010	1.32	0.00050	8337989	1.30	0.0010	8343616
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	<0.00050	0.00050	8337989	<0.00010	0.00010	8343616
Total Calcium (Ca)	mg/L	53.9	0.050	612	0.25	8336813	843	0.25	8341902
Total Magnesium (Mg)	mg/L	5.02	0.050	2.62	0.25	8336813	2.40	0.25	8341902
Total Potassium (K)	mg/L	1.00	0.050	43.3	0.25	8336813	64.9	0.25	8341902

RDL = Reportable Detection Limit

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7906		PB7907			PB7908		
Sampling Date		2016/07/18 13:29		2016/07/18 14:05			2016/07/18 14:32		
COC Number		08424516		08424516			08424516		
	UNITS	**W82**	**RDL**	**T1**	**RDL**	**QC Batch**	**T2**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	1.39	0.050	174	0.25	8336813	239	0.25	8341902
Total Sulphur (S)	mg/L	16.9	3.0	804	15	8336813	1010	3.0	8341902
RDL = Reportable Detection Limit									

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7909		
Sampling Date		2016/07/18 15:01		
COC Number		08424516		
	UNITS	T3	RDL	QC Batch
ANIONS				
Bromide (Br)	mg/L	0.14	0.10	8340629
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0149	0.0025	8340778
Dissolved Antimony (Sb)	mg/L	0.0510	0.00010	8340778
Dissolved Arsenic (As)	mg/L	0.00385	0.00010	8340778
Dissolved Barium (Ba)	mg/L	0.0881	0.00010	8340778
Dissolved Beryllium (Be)	mg/L	<0.000050	0.000050	8340778
Dissolved Bismuth (Bi)	mg/L	0.000025	0.000025	8340778
Dissolved Boron (B)	mg/L	<0.050	0.050	8340778
Dissolved Cadmium (Cd)	mg/L	0.00880	0.000025	8340778
Dissolved Chromium (Cr)	mg/L	<0.00050	0.00050	8340778
Dissolved Cobalt (Co)	mg/L	0.00119	0.000025	8340778
Dissolved Copper (Cu)	mg/L	0.868	0.00025	8340778
Dissolved Iron (Fe)	mg/L	0.0050	0.0050	8340778
Dissolved Lead (Pb)	mg/L	0.269	0.000025	8340778
Dissolved Lithium (Li)	mg/L	0.0160	0.0025	8340778
Dissolved Manganese (Mn)	mg/L	0.145	0.00025	8340778
Dissolved Molybdenum (Mo)	mg/L	0.0526	0.00025	8340778
Dissolved Nickel (Ni)	mg/L	0.0104	0.00010	8340778
Dissolved Phosphorus (P)	mg/L	0.142	0.010	8340778
Dissolved Selenium (Se)	mg/L	3.65	0.00020	8340778
Dissolved Silicon (Si)	mg/L	1.62	0.25	8340778
Dissolved Silver (Ag)	mg/L	0.0251	0.000025	8340778
Dissolved Strontium (Sr)	mg/L	3.55	0.00025	8340778
Dissolved Thallium (Tl)	mg/L	0.00206	0.000010	8340778
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	8340778
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	8340778
Dissolved Uranium (U)	mg/L	0.000421	0.000010	8340778
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	8340778
Dissolved Zinc (Zn)	mg/L	1.05	0.00050	8340778
Dissolved Zirconium (Zr)	mg/L	<0.00050	0.00050	8340778
Dissolved Calcium (Ca)	mg/L	864	0.25	8341847
Dissolved Magnesium (Mg)	mg/L	1.62	0.25	8341847
Dissolved Potassium (K)	mg/L	74.6	0.25	8341847
RDL = Reportable Detection Limit				

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7909		
Sampling Date		2016/07/18 15:01		
COC Number		08424516		
	UNITS	T3	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	282	0.25	8341847
Dissolved Sulphur (S)	mg/L	2190	15	8341847
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	2.10	0.015	8339622
Total Antimony (Sb)	mg/L	0.114	0.00025	8339622
Total Arsenic (As)	mg/L	0.327	0.00010	8339622
Total Barium (Ba)	mg/L	0.309	0.00050	8339622
Total Beryllium (Be)	mg/L	<0.000050	0.000050	8339622
Total Bismuth (Bi)	mg/L	0.00359	0.00010	8339622
Total Boron (B)	mg/L	<0.25	0.25	8339622
Total Cadmium (Cd)	mg/L	0.0832	0.000025	8339622
Total Chromium (Cr)	mg/L	0.0037	0.0025	8339622
Total Cobalt (Co)	mg/L	0.00636	0.000050	8339622
Total Copper (Cu)	mg/L	1.21	0.0010	8339622
Total Iron (Fe)	mg/L	39.6	0.025	8339622
Total Lead (Pb)	mg/L	2.07	0.00025	8339622
Total Lithium (Li)	mg/L	0.0188	0.0025	8339622
Total Manganese (Mn)	mg/L	0.326	0.00050	8339622
Total Molybdenum (Mo)	mg/L	0.119	0.00025	8339622
Total Nickel (Ni)	mg/L	0.0183	0.00050	8339622
Total Selenium (Se)	mg/L	3.83	0.00020	8339622
Total Silicon (Si)	mg/L	5.58	0.50	8339622
Total Silver (Ag)	mg/L	0.0251	0.000050	8339622
Total Strontium (Sr)	mg/L	3.36	0.00025	8339622
Total Thallium (Tl)	mg/L	0.00721	0.000010	8339622
Total Tin (Sn)	mg/L	0.0046	0.0010	8339622
Total Titanium (Ti)	mg/L	0.028	0.025	8339622
Total Uranium (U)	mg/L	0.00148	0.000025	8339622
Total Vanadium (V)	mg/L	0.0072	0.0025	8339622
Total Zinc (Zn)	mg/L	8.24	0.0050	8339622
Total Zirconium (Zr)	mg/L	0.00258	0.00050	8339622
Total Calcium (Ca)	mg/L	767	1.3	8336813
Total Magnesium (Mg)	mg/L	4.7	1.3	8336813
Total Potassium (K)	mg/L	78.3	1.3	8336813
Total Sodium (Na)	mg/L	259	1.3	8336813
RDL = Reportable Detection Limit				

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PB7909		
Sampling Date		2016/07/18 15:01		
COC Number		08424516		
	UNITS	**T3**	**RDL**	**QC Batch**
Total Sulphur (S)	mg/L	1020	75	8336813
RDL = Reportable Detection Limit				

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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C
Package 2	7.3°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample PB7907-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample PB7907-04 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PB7907-03 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.
Sample PB7908-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample PB7908-04 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PB7909-01 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample PB7909-01 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PB7909-03 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8337050	Turbidity	2016/07/21			97	80 - 120	<0.10	NTU	NC	20
8337493	Total Suspended Solids	2016/07/23	113	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
8337495	Total Suspended Solids	2016/07/23	117	80 - 120	98	80 - 120	<4.0	mg/L	NC	20
8337750	Total Dissolved Solids	2016/07/23	NC	80 - 120	92	80 - 120	<10	mg/L	3.2	20
8337989	Total Aluminum (Al)	2016/07/26	112	80 - 120	112	80 - 120	0.00059, RDL=0.00050	mg/L	0.91	20
8337989	Total Antimony (Sb)	2016/07/26	101	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8337989	Total Arsenic (As)	2016/07/26	NC	80 - 120	98	80 - 120	<0.000020	mg/L	1.9	20
8337989	Total Barium (Ba)	2016/07/26	NC	80 - 120	103	80 - 120	<0.000020	mg/L	0.30	20
8337989	Total Beryllium (Be)	2016/07/26	101	80 - 120	102	80 - 120	<0.000010	mg/L	NC	20
8337989	Total Bismuth (Bi)	2016/07/26	100	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8337989	Total Boron (B)	2016/07/26	105	80 - 120	103	80 - 120	<0.010	mg/L	NC	20
8337989	Total Cadmium (Cd)	2016/07/26	98	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8337989	Total Chromium (Cr)	2016/07/26	95	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20
8337989	Total Cobalt (Co)	2016/07/26	90	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8337989	Total Copper (Cu)	2016/07/26	92	80 - 120	104	80 - 120	<0.000050	mg/L	NC	20
8337989	Total Iron (Fe)	2016/07/26	NC	80 - 120	112	80 - 120	<0.0010	mg/L	2.6	20
8337989	Total Lead (Pb)	2016/07/26	102	80 - 120	103	80 - 120	<0.0000050	mg/L	0.92	20
8337989	Total Lithium (Li)	2016/07/26	NC	80 - 120	104	80 - 120	<0.00050	mg/L	0.72	20
8337989	Total Manganese (Mn)	2016/07/26	NC	80 - 120	101	80 - 120	<0.000050	mg/L	0.25	20
8337989	Total Molybdenum (Mo)	2016/07/26	NC	80 - 120	102	80 - 120	<0.000050	mg/L	0.37	20
8337989	Total Nickel (Ni)	2016/07/26	95	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8337989	Total Phosphorus (P)	2016/07/26					<0.0020	mg/L	NC	20
8337989	Total Selenium (Se)	2016/07/26	99	80 - 120	101	80 - 120	<0.000040	mg/L	NC	20
8337989	Total Silicon (Si)	2016/07/26					<0.050	mg/L	2.4	20
8337989	Total Silver (Ag)	2016/07/26	95	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8337989	Total Strontium (Sr)	2016/07/26	NC	80 - 120	97	80 - 120	<0.000050	mg/L	2.8	20
8337989	Total Thallium (Tl)	2016/07/26	88	80 - 120	93	80 - 120	<0.0000020	mg/L	NC	20
8337989	Total Tin (Sn)	2016/07/26	111	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20
8337989	Total Titanium (Ti)	2016/07/26	109	80 - 120	94	80 - 120	<0.00050	mg/L	NC	20
8337989	Total Uranium (U)	2016/07/26	NC	80 - 120	104	80 - 120	<0.0000020	mg/L	1.0	20
8337989	Total Vanadium (V)	2016/07/26	96	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20
8337989	Total Zinc (Zn)	2016/07/26	NC	80 - 120	111	80 - 120	<0.00010	mg/L	8.7	20

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8337989	Total Zirconium (Zr)	2016/07/26					<0.00010	mg/L	12	20
8338082	Strong Acid Dissoc. Cyanide (CN)	2016/07/22	94	80 - 120	99	80 - 120	0.00052, RDL=0.00050	mg/L	1.9	20
8338083	Weak Acid Dissoc. Cyanide (CN)	2016/07/22	92	80 - 120	96	80 - 120	0.00052, RDL=0.00050	mg/L	NC	20
8338094	Acidity (pH 4.5)	2016/07/22					<0.50	mg/L	NC	20
8338094	Acidity (pH 8.3)	2016/07/22			96	80 - 120	<0.50	mg/L	10	20
8338123	Alkalinity (PP as CaCO3)	2016/07/22					<0.50	mg/L	NC	20
8338123	Alkalinity (Total as CaCO3)	2016/07/22	101	80 - 120	101	80 - 120	<0.50	mg/L	0.88	20
8338123	Bicarbonate (HCO3)	2016/07/22					<0.50	mg/L	0.88	20
8338123	Carbonate (CO3)	2016/07/22					<0.50	mg/L	NC	20
8338123	Hydroxide (OH)	2016/07/22					<0.50	mg/L	NC	20
8338125	Orthophosphate (P)	2016/07/22			98	80 - 120	<0.0010	mg/L		
8338126	Fluoride (F)	2016/07/22	94	80 - 120	98	80 - 120	0.012, RDL=0.010	mg/L	0	20
8338130	pH	2016/07/22			102	97 - 103			0.62	N/A
8338131	Conductivity	2016/07/22			99	80 - 120	<1.0	uS/cm	0.36	20
8338148	Alkalinity (PP as CaCO3)	2016/07/22					<0.50	mg/L	NC	20
8338148	Alkalinity (Total as CaCO3)	2016/07/22	NC	80 - 120	96	80 - 120	0.54, RDL=0.50	mg/L	0.31	20
8338148	Bicarbonate (HCO3)	2016/07/22					0.66, RDL=0.50	mg/L	0.31	20
8338148	Carbonate (CO3)	2016/07/22					<0.50	mg/L	NC	20
8338148	Hydroxide (OH)	2016/07/22					<0.50	mg/L	NC	20
8338150	pH	2016/07/22			102	97 - 103			0.25	N/A
8338151	Conductivity	2016/07/22			100	80 - 120	<1.0	uS/cm	0.52	20
8338270	Dissolved Phosphorus (P)	2016/07/22	NC	80 - 120	92	80 - 120	<0.0020	mg/L		
8338375	Dissolved Aluminum (Al)	2016/07/26	108	80 - 120	109	80 - 120	0.00071, RDL=0.00050	mg/L	NC	20
8338375	Dissolved Antimony (Sb)	2016/07/26	100	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8338375	Dissolved Arsenic (As)	2016/07/26	96	80 - 120	93	80 - 120	<0.000020	mg/L	NC	20
8338375	Dissolved Barium (Ba)	2016/07/26	NC	80 - 120	100	80 - 120	<0.000020	mg/L	0.089	20
8338375	Dissolved Beryllium (Be)	2016/07/26	97	80 - 120	98	80 - 120	<0.000010	mg/L	NC	20
8338375	Dissolved Bismuth (Bi)	2016/07/26	99	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8338375	Dissolved Boron (B)	2016/07/26	98	80 - 120	99	80 - 120	<0.010	mg/L	NC	20

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8338375	Dissolved Cadmium (Cd)	2016/07/26	95	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8338375	Dissolved Chromium (Cr)	2016/07/26	97	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
8338375	Dissolved Cobalt (Co)	2016/07/26	94	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
8338375	Dissolved Copper (Cu)	2016/07/26	96	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8338375	Dissolved Iron (Fe)	2016/07/26	103	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20
8338375	Dissolved Lead (Pb)	2016/07/26	101	80 - 120	100	80 - 120	<0.0000050	mg/L	0.91	20
8338375	Dissolved Lithium (Li)	2016/07/26	99	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
8338375	Dissolved Manganese (Mn)	2016/07/26	98	80 - 120	99	80 - 120	<0.000050	mg/L	1.2	20
8338375	Dissolved Molybdenum (Mo)	2016/07/26	101	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20
8338375	Dissolved Nickel (Ni)	2016/07/26	96	80 - 120	101	80 - 120	<0.000020	mg/L	3.1	20
8338375	Dissolved Phosphorus (P)	2016/07/26					<0.0020	mg/L	NC	20
8338375	Dissolved Selenium (Se)	2016/07/26	96	80 - 120	98	80 - 120	<0.000040	mg/L	0.88	20
8338375	Dissolved Silicon (Si)	2016/07/26					<0.050	mg/L	5.1	20
8338375	Dissolved Silver (Ag)	2016/07/26	94	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8338375	Dissolved Strontium (Sr)	2016/07/26	NC	80 - 120	90	80 - 120	<0.000050	mg/L	0.30	20
8338375	Dissolved Thallium (Tl)	2016/07/26	99	80 - 120	99	80 - 120	<0.0000020	mg/L	NC	20
8338375	Dissolved Tin (Sn)	2016/07/26	99	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20
8338375	Dissolved Titanium (Ti)	2016/07/26	106	80 - 120	92	80 - 120	<0.00050	mg/L	NC	20
8338375	Dissolved Uranium (U)	2016/07/26	103	80 - 120	100	80 - 120	<0.0000020	mg/L	NC	20
8338375	Dissolved Vanadium (V)	2016/07/26	99	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8338375	Dissolved Zinc (Zn)	2016/07/26	100	80 - 120	106	80 - 120	<0.00010	mg/L	NC	20
8338375	Dissolved Zirconium (Zr)	2016/07/26					<0.00010	mg/L	NC	20
8338501	Dissolved Chloride (Cl)	2016/07/22	NC	80 - 120	99	80 - 120	<0.50	mg/L	2.4	20
8338503	Dissolved Sulphate (SO4)	2016/07/22	NC	80 - 120	95	80 - 120	0.80, RDL=0.50	mg/L	1.9	20
8338516	Dissolved Chloride (Cl)	2016/07/22	114	80 - 120	101	80 - 120	<0.50	mg/L	NC	20
8338518	Dissolved Sulphate (SO4)	2016/07/22	NC	80 - 120	97	80 - 120	0.80, RDL=0.50	mg/L	1.2	20
8338583	Total Ammonia (N)	2016/07/25	111	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20
8339012	Nitrate plus Nitrite (N)	2016/07/22	106	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
8339013	Nitrite (N)	2016/07/22	98	80 - 120	97	80 - 120	<0.0020	mg/L	NC	25
8339498	Dissolved Organic Carbon (C)	2016/07/22	NC	80 - 120	105	80 - 120	<0.50	mg/L	2.1	20
8339622	Total Aluminum (Al)	2016/07/25	NC	80 - 120	120	80 - 120	<0.0030	mg/L		
8339622	Total Antimony (Sb)	2016/07/25	104	80 - 120	104	80 - 120	<0.000050	mg/L		

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QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8339622	Total Arsenic (As)	2016/07/25	105	80 - 120	105	80 - 120	<0.000020	mg/L		
8339622	Total Barium (Ba)	2016/07/25	NC	80 - 120	102	80 - 120	<0.00010	mg/L		
8339622	Total Beryllium (Be)	2016/07/25	92	80 - 120	95	80 - 120	<0.000010	mg/L		
8339622	Total Bismuth (Bi)	2016/07/25	99	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8339622	Total Boron (B)	2016/07/25	NC	80 - 120	100	80 - 120	<0.050	mg/L		
8339622	Total Cadmium (Cd)	2016/07/25	98	80 - 120	100	80 - 120	<0.0000050	mg/L		
8339622	Total Chromium (Cr)	2016/07/25	89	80 - 120	92	80 - 120	<0.00050	mg/L		
8339622	Total Cobalt (Co)	2016/07/25	88	80 - 120	92	80 - 120	<0.000010	mg/L		
8339622	Total Copper (Cu)	2016/07/25	80	80 - 120	88	80 - 120	0.00021, RDL=0.00020	mg/L		
8339622	Total Iron (Fe)	2016/07/25	NC	80 - 120	106	80 - 120	<0.0050	mg/L		
8339622	Total Lead (Pb)	2016/07/25	96	80 - 120	99	80 - 120	<0.000050	mg/L		
8339622	Total Lithium (Li)	2016/07/25	NC	80 - 120	102	80 - 120	<0.00050	mg/L		
8339622	Total Manganese (Mn)	2016/07/25	NC	80 - 120	97	80 - 120	<0.00010	mg/L		
8339622	Total Molybdenum (Mo)	2016/07/25	NC	80 - 120	101	80 - 120	<0.000050	mg/L		
8339622	Total Nickel (Ni)	2016/07/25	85	80 - 120	89	80 - 120	<0.00010	mg/L		
8339622	Total Selenium (Se)	2016/07/25	101	80 - 120	105	80 - 120	<0.000040	mg/L		
8339622	Total Silicon (Si)	2016/07/25					<0.10	mg/L		
8339622	Total Silver (Ag)	2016/07/25	109	80 - 120	106	80 - 120	<0.000010	mg/L		
8339622	Total Strontium (Sr)	2016/07/25	NC	80 - 120	107	80 - 120	<0.000050	mg/L		
8339622	Total Thallium (Tl)	2016/07/25	100	80 - 120	97	80 - 120	<0.0000020	mg/L		
8339622	Total Tin (Sn)	2016/07/25	113	80 - 120	102	80 - 120	<0.00020	mg/L		
8339622	Total Titanium (Ti)	2016/07/25	114	80 - 120	97	80 - 120	<0.0050	mg/L		
8339622	Total Uranium (U)	2016/07/25	93	80 - 120	91	80 - 120	<0.0000050	mg/L		
8339622	Total Vanadium (V)	2016/07/25	NC	80 - 120	95	80 - 120	<0.00050	mg/L		
8339622	Total Zinc (Zn)	2016/07/25	NC	80 - 120	90	80 - 120	<0.0010	mg/L		
8339622	Total Zirconium (Zr)	2016/07/25					<0.00010	mg/L		
8340629	Bromide (Br)	2016/07/26	101	78 - 120	99	80 - 120	<0.010	mg/L	NC	20
8340778	Dissolved Aluminum (Al)	2016/07/27	101	80 - 120	103	80 - 120	<0.00050	mg/L	0.36	20
8340778	Dissolved Antimony (Sb)	2016/07/27	101	80 - 120	99	80 - 120	<0.000020	mg/L	4.3	20
8340778	Dissolved Arsenic (As)	2016/07/27	100	80 - 120	100	80 - 120	<0.000020	mg/L	2.0	20
8340778	Dissolved Barium (Ba)	2016/07/27	NC	80 - 120	103	80 - 120	<0.000020	mg/L	1.8	20
8340778	Dissolved Beryllium (Be)	2016/07/27	94	80 - 120	95	80 - 120	<0.000010	mg/L	NC	20

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8340778	Dissolved Bismuth (Bi)	2016/07/27	95	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8340778	Dissolved Boron (B)	2016/07/27	96	80 - 120	98	80 - 120	<0.010	mg/L	NC	20
8340778	Dissolved Cadmium (Cd)	2016/07/27	98	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8340778	Dissolved Chromium (Cr)	2016/07/27	100	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8340778	Dissolved Cobalt (Co)	2016/07/27	96	80 - 120	104	80 - 120	<0.0000050	mg/L	0	20
8340778	Dissolved Copper (Cu)	2016/07/27	93	80 - 120	104	80 - 120	<0.000050	mg/L	5.8	20
8340778	Dissolved Iron (Fe)	2016/07/27	101	80 - 120	108	80 - 120	<0.0010	mg/L	7.0	20
8340778	Dissolved Lead (Pb)	2016/07/27	96	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8340778	Dissolved Lithium (Li)	2016/07/27	101	80 - 120	104	80 - 120	<0.00050	mg/L	11	20
8340778	Dissolved Manganese (Mn)	2016/07/27	95	80 - 120	101	80 - 120	<0.000050	mg/L	3.5	20
8340778	Dissolved Molybdenum (Mo)	2016/07/27	104	80 - 120	100	80 - 120	<0.000050	mg/L	0.32	20
8340778	Dissolved Nickel (Ni)	2016/07/27	94	80 - 120	104	80 - 120	<0.000020	mg/L	0.86	20
8340778	Dissolved Phosphorus (P)	2016/07/27					<0.0020	mg/L	NC	20
8340778	Dissolved Selenium (Se)	2016/07/27	99	80 - 120	104	80 - 120	<0.000040	mg/L	3.2	20
8340778	Dissolved Silicon (Si)	2016/07/27					<0.050	mg/L	1.2	20
8340778	Dissolved Silver (Ag)	2016/07/27	98	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
8340778	Dissolved Strontium (Sr)	2016/07/27	NC	80 - 120	102	80 - 120	<0.000050	mg/L	0.24	20
8340778	Dissolved Thallium (Tl)	2016/07/27	99	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
8340778	Dissolved Tin (Sn)	2016/07/27	101	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
8340778	Dissolved Titanium (Ti)	2016/07/27	102	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
8340778	Dissolved Uranium (U)	2016/07/27	NC	80 - 120	101	80 - 120	<0.0000020	mg/L	0.23	20
8340778	Dissolved Vanadium (V)	2016/07/27	100	80 - 120	104	80 - 120	<0.00020	mg/L	NC	20
8340778	Dissolved Zinc (Zn)	2016/07/27	91	80 - 120	104	80 - 120	<0.00010	mg/L	NC	20
8340778	Dissolved Zirconium (Zr)	2016/07/27					<0.00010	mg/L	NC	20
8340973	Dissolved Chloride (Cl)	2016/07/25			108	80 - 120	<0.50	mg/L		
8340984	Dissolved Sulphate (SO4)	2016/07/25	NC	80 - 120	104	80 - 120	<0.50	mg/L		
8341152	Dissolved Phosphorus (P)	2016/07/26	94	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8341153	Total Phosphorus (P)	2016/07/26	94	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8341385	Orthophosphate (P)	2016/07/26	94	80 - 120	106	80 - 120	0.0012, RDL=0.0010	mg/L	NC	20
8343389	Dissolved Aluminum (Al)	2016/07/29			112	80 - 120	<0.00050	mg/L		
8343389	Dissolved Antimony (Sb)	2016/07/29			101	80 - 120	<0.000020	mg/L		
8343389	Dissolved Arsenic (As)	2016/07/29			97	80 - 120	<0.000020	mg/L		

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8343389	Dissolved Barium (Ba)	2016/07/29			102	80 - 120	<0.000020	mg/L		
8343389	Dissolved Beryllium (Be)	2016/07/29			101	80 - 120	<0.000010	mg/L		
8343389	Dissolved Bismuth (Bi)	2016/07/29			101	80 - 120	<0.0000050	mg/L		
8343389	Dissolved Boron (B)	2016/07/29			103	80 - 120	<0.010	mg/L		
8343389	Dissolved Cadmium (Cd)	2016/07/29			100	80 - 120	<0.0000050	mg/L		
8343389	Dissolved Chromium (Cr)	2016/07/29			102	80 - 120	<0.00010	mg/L		
8343389	Dissolved Cobalt (Co)	2016/07/29			102	80 - 120	<0.0000050	mg/L		
8343389	Dissolved Copper (Cu)	2016/07/29			101	80 - 120	<0.000050	mg/L		
8343389	Dissolved Iron (Fe)	2016/07/29			112	80 - 120	<0.0010	mg/L		
8343389	Dissolved Lead (Pb)	2016/07/29			101	80 - 120	<0.0000050	mg/L		
8343389	Dissolved Lithium (Li)	2016/07/29			98	80 - 120	<0.00050	mg/L		
8343389	Dissolved Manganese (Mn)	2016/07/29			102	80 - 120	<0.000050	mg/L		
8343389	Dissolved Molybdenum (Mo)	2016/07/29			102	80 - 120	<0.000050	mg/L		
8343389	Dissolved Nickel (Ni)	2016/07/29			102	80 - 120	<0.000020	mg/L		
8343389	Dissolved Phosphorus (P)	2016/07/29					<0.0020	mg/L		
8343389	Dissolved Selenium (Se)	2016/07/29			101	80 - 120	<0.000040	mg/L		
8343389	Dissolved Silicon (Si)	2016/07/29					<0.050	mg/L		
8343389	Dissolved Silver (Ag)	2016/07/29			102	80 - 120	<0.0000050	mg/L		
8343389	Dissolved Strontium (Sr)	2016/07/29			100	80 - 120	<0.000050	mg/L		
8343389	Dissolved Thallium (Tl)	2016/07/29			102	80 - 120	<0.0000020	mg/L		
8343389	Dissolved Tin (Sn)	2016/07/29			100	80 - 120	<0.00020	mg/L		
8343389	Dissolved Titanium (Ti)	2016/07/29			104	80 - 120	<0.00050	mg/L		
8343389	Dissolved Uranium (U)	2016/07/29			103	80 - 120	<0.0000020	mg/L		
8343389	Dissolved Vanadium (V)	2016/07/29			101	80 - 120	<0.00020	mg/L		
8343389	Dissolved Zinc (Zn)	2016/07/29			109	80 - 120	<0.00010	mg/L		
8343389	Dissolved Zirconium (Zr)	2016/07/29					<0.00010	mg/L		
8343616	Total Aluminum (Al)	2016/08/02	NC	80 - 120	123 (1)	80 - 120	<0.0030	mg/L		
8343616	Total Antimony (Sb)	2016/08/02	107	80 - 120	106	80 - 120	<0.000020	mg/L		
8343616	Total Arsenic (As)	2016/08/02	110	80 - 120	105	80 - 120	<0.000020	mg/L		
8343616	Total Barium (Ba)	2016/08/02	NC	80 - 120	112	80 - 120	<0.000050	mg/L		
8343616	Total Beryllium (Be)	2016/08/02	117	80 - 120	116	80 - 120	<0.000010	mg/L		
8343616	Total Bismuth (Bi)	2016/08/02	100	80 - 120	104	80 - 120	<0.000010	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8343616	Total Boron (B)	2016/08/02	NC	80 - 120	112	80 - 120	<0.010	mg/L		
8343616	Total Cadmium (Cd)	2016/08/02	103	80 - 120	103	80 - 120	<0.0000050	mg/L		
8343616	Total Chromium (Cr)	2016/08/02	100	80 - 120	100	80 - 120	<0.00010	mg/L		
8343616	Total Cobalt (Co)	2016/08/02	101	80 - 120	102	80 - 120	<0.000010	mg/L		
8343616	Total Copper (Cu)	2016/08/02	97	80 - 120	105	80 - 120	0.00029, RDL=0.00020 (2)	mg/L		
8343616	Total Iron (Fe)	2016/08/02	NC	80 - 120	107	80 - 120	<0.0050	mg/L		
8343616	Total Lead (Pb)	2016/08/02	102	80 - 120	103	80 - 120	<0.000020	mg/L		
8343616	Total Lithium (Li)	2016/08/02	NC	80 - 120	117	80 - 120	<0.00050	mg/L		
8343616	Total Manganese (Mn)	2016/08/02	NC	80 - 120	106	80 - 120	<0.00010	mg/L		
8343616	Total Molybdenum (Mo)	2016/08/02	NC	80 - 120	101	80 - 120	<0.000050	mg/L		
8343616	Total Nickel (Ni)	2016/08/02	100	80 - 120	105	80 - 120	<0.00010	mg/L		
8343616	Total Selenium (Se)	2016/08/02	110	80 - 120	109	80 - 120	<0.000040	mg/L		
8343616	Total Silicon (Si)	2016/08/02					<0.050	mg/L		
8343616	Total Silver (Ag)	2016/08/02	109	80 - 120	105	80 - 120	<0.000010	mg/L		
8343616	Total Strontium (Sr)	2016/08/02	NC	80 - 120	102	80 - 120	<0.000050	mg/L		
8343616	Total Thallium (Tl)	2016/08/02	106	80 - 120	103	80 - 120	<0.0000020	mg/L		
8343616	Total Tin (Sn)	2016/08/02	82	80 - 120	100	80 - 120	<0.00020	mg/L		
8343616	Total Titanium (Ti)	2016/08/02	119	80 - 120	100	80 - 120	<0.0020	mg/L		
8343616	Total Uranium (U)	2016/08/02	114	80 - 120	110	80 - 120	<0.0000050	mg/L		
8343616	Total Vanadium (V)	2016/08/02	NC	80 - 120	106	80 - 120	<0.00020	mg/L		
8343616	Total Zinc (Zn)	2016/08/02	NC	80 - 120	105	80 - 120	<0.0010	mg/L		
8343616	Total Zirconium (Zr)	2016/08/02					<0.00010	mg/L		
8343762	Orthophosphate (P)	2016/07/28	98	80 - 120	107	80 - 120	0.0018, RDL=0.0010	mg/L	2.4	20
8343791	Dissolved Phosphorus (P)	2016/07/28	101	80 - 120	111	80 - 120	<0.0020	mg/L	6.3	20

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Maxxam Job #: B660054
Report Date: 2016/08/04

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8343813	Total Phosphorus (P)	2016/07/28	NC	80 - 120	110	80 - 120	<0.0020	mg/L	1.2	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

(1) Blank Spike outside acceptance criteria (10% of analytes failure allowed)

(2) RDL raised due to background artifacts detected in analysis

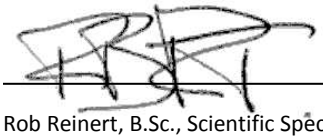
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Maxxam Job #: B660054
Report Date: 2016/08/04

YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

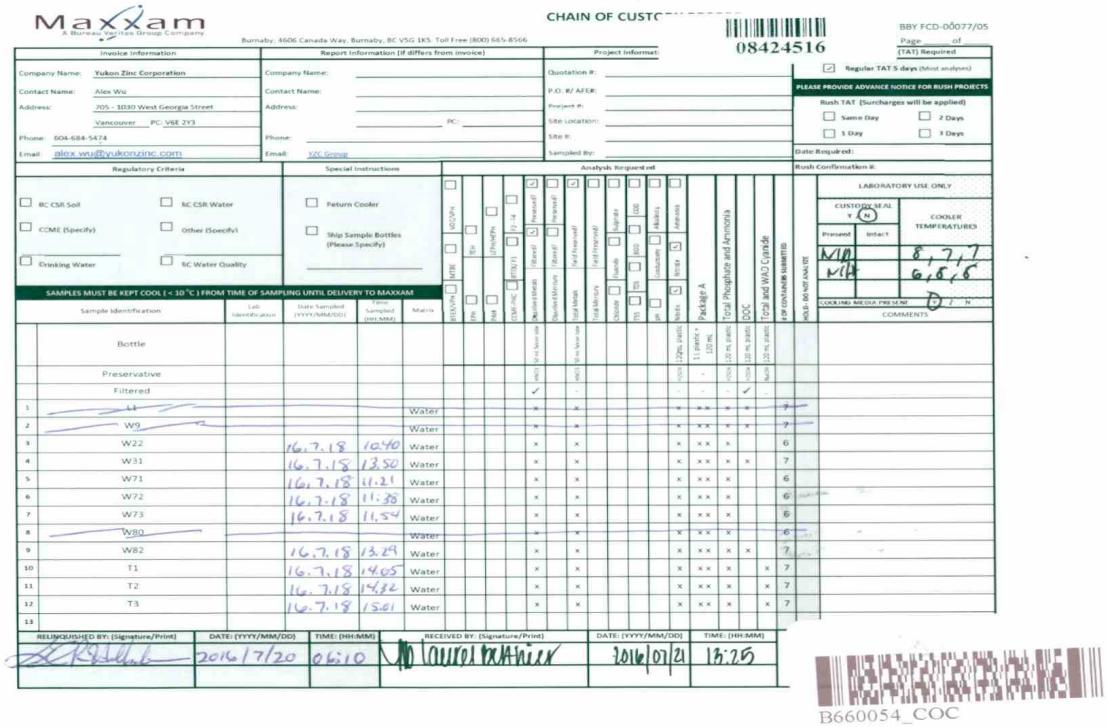
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY RECORD

08424516

BBY FCD-00077/05

Page ___ of ___

Invoice Information
Company Name: Yukon Zinc Corporation
Contact Name: Alex Wu
Address: 705 - 1030 West Georgia Street
Vancouver PC: V6E 2Y3
Phone: 604-684-5474
Email: alex.wu@yukonzinc.com

Report Information (if differs from invoice)
Company Name:
Contact Name:
Address:
PC:
Phone:
Email: YZC Group

Project Information
Quotation #:
P.O. #/ AFE#:
Project #:
Site Location:
Site #:
Sampled By:

(TAT) Required
Regular TAT 5 days (Most analyses)
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Rush TAT (Surcharges will be applied)
Same Day 2 Days
1 Day 3 Days
Date Required:
Rush Confirmation #:

Regulatory Criteria
BC CSR Soil
BC CSR Water
CCME (Specify)
Other (Specify)
Drinking Water
BC Water Quality

Special Instructions
Return Cooler
Ship Sample Bottles (Please Specify)

Analysis Requested

LABORATORY USE ONLY
CUSTODY SEAL Y (N)
COOLER TEMPERATURES
Present / Intact
8, 7, 7
6, 6, 6
COOLING MEDIA PRESENT: Y / N
COMMENTS

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	Total Phosphate and Ammonia	COC	Total and WAD Cyanide	# OF CONTAINERS SUBMITTED
	Bottle					Package A			
	Preservative								
	Filtered								
1	W1				Water	x x	x	x	7
2	W9				Water	x x	x	x	7
3	W22		16.7.18	10:40	Water	x x	x		6
4	W31		16.7.18	13:50	Water	x x	x	x	7
5	W71		16.7.18	11:21	Water	x x	x		6
6	W72		16.7.18	11:38	Water	x x	x		6
7	W73		16.7.18	11:54	Water	x x	x		6
8	W80				Water	x x	x		6
9	W82		16.7.18	13:29	Water	x x	x	x	7
10	T1		16.7.18	14:05	Water	x x	x	x	7
11	T2		16.7.18	14:32	Water	x x	x	x	7
12	T3		16.7.18	15:01	Water	x x	x	x	7
13									

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
	2016/7/20	06:10	Laurel Mathieu	2016/07/21	13:25

B660054_COC

Maxxam
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Your C.O.C. #: 08426764

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/09/28
Report #: R2270989
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B673226
Received: 2016/08/25, 16:00

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	9	N/A	2016/08/29	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	9	2016/08/27	2016/08/28	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	9	N/A	2016/08/31	AB SOP-00020	SM 22 4500-Cl G m
Cyanide SAD (strong acid dissociable)	3	N/A	2016/08/29	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	3	N/A	2016/08/29	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (2)	3	N/A	2016/08/29	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	9	N/A	2016/08/28	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	9	N/A	2016/08/29	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	9	N/A	2016/09/01	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	9	N/A	2016/09/01	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	9	N/A	2016/08/29	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	9	N/A	2016/09/01	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	9	N/A	2016/09/01	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	1	2016/08/30	2016/09/01	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	9	N/A	2016/09/01	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	8	N/A	2016/09/01	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	9	N/A	2016/08/30	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	9	N/A	2016/08/27	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	9	N/A	2016/08/27	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	9	N/A	2016/08/30	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	9	N/A	2016/08/30	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	9	N/A	2016/08/28	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	9	N/A	2016/08/27	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry (1)	9	N/A	2016/08/31	AB SOP-00018	SM 22 4500-SO4 E m
Total Dissolved Solids (Filt. Residue)	9	2016/08/29	2016/08/30	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	3	2016/08/30	2016/08/30	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	6	2016/08/27	2016/08/27	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	9	N/A	2016/08/30	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	9	2016/08/29	2016/08/30	BBY6SOP-00034	SM 22 2540 D
Turbidity	9	N/A	2016/08/27	BBY6SOP-00027	SM 22 2130 B m

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Your C.O.C. #: 08426764

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/09/28
Report #: R2270989
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B673226

Received: 2016/08/25, 16:00

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 Maxxam Edmonton Environmental
(2) DOC present in the sample should be considered as non-purgeable DOC.
(3) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PJ3401		PJ3402		PJ3403	PJ3404		
Sampling Date		2016/08/17 08:25		2016/08/17 09:01		2016/08/17 14:23	2016/08/17 14:30		
COC Number		08426764		08426764		08426764	08426764		
	UNITS	L1	QC Batch	W9	QC Batch	W15	W81	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.069	8380346	0.095	8380346	0.049	0.110	0.010	8380346
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	64.6	8377571	187	8377571	60.2	74.3	0.50	8377571
Nitrate (N)	mg/L	<0.20	8377669	<0.20	8377669	0.24	0.32	0.20	8377669
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	63.1	8378888	185	8378888	65.6	72.1	0.50	8378888
Dissolved Organic Carbon (C)	mg/L	3.20	8381757	1.59	8381757			0.50	8381757
Acidity (pH 4.5)	mg/L	<0.50	8380619	<0.50	8380622	<0.50	<0.50	0.50	8380619
Alkalinity (Total as CaCO3)	mg/L	57.0	8379490	132	8379490	58.1	65.6	0.50	8379490
Acidity (pH 8.3)	mg/L	<0.50	8380619	<0.50	8380622	<0.50	<0.50	0.50	8380619
Alkalinity (PP as CaCO3)	mg/L	<0.50	8379490	<0.50	8379490	<0.50	<0.50	0.50	8379490
Bicarbonate (HCO3)	mg/L	69.5	8379490	161	8379490	70.9	80.0	0.50	8379490
Carbonate (CO3)	mg/L	<0.50	8379490	<0.50	8379490	<0.50	<0.50	0.50	8379490
Hydroxide (OH)	mg/L	<0.50	8379490	<0.50	8379490	<0.50	<0.50	0.50	8379490
Anions									
Orthophosphate (P)	mg/L	0.0096 (1)	8380357	0.0033 (1)	8380357	0.0010 (1)	<0.0010 (1)	0.0010	8380357
Dissolved Sulphate (SO4)	mg/L	14	8382096	55	8382096	13	13	1.0	8382096
Dissolved Chloride (Cl)	mg/L	<1.0	8382084	<1.0	8382084	<1.0	<1.0	1.0	8382084
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.0118	8382535	0.0036	8382535	0.0021	0.0034	0.0020	8380376
Total Ammonia (N)	mg/L	0.062	8382038	0.019	8382038	0.047	0.019	0.0050	8382038
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8381158	<0.20 (2)	8381158	0.24 (2)	0.32 (2)	0.20	8381158
Nitrite (N)	mg/L	<0.20 (2)	8381160	<0.20 (2)	8381160	<0.20 (2)	<0.20 (2)	0.20	8381160
Total Phosphorus (P)	mg/L	0.0178	8382536	0.0134	8382536	0.0037	0.0026	0.0020	8382536
Physical Properties									
Conductivity	uS/cm	139	8379492	348	8379492	140	154	1.0	8379492
pH	pH	8.00	8379491	8.23	8379491	8.02	8.03		8379491
Physical Properties									
Total Suspended Solids	mg/L	<4.0 (1)	8380435	<4.0 (1)	8380435	<4.0 (1)	<4.0 (1)	4.0	8380435
Total Dissolved Solids	mg/L	84 (1)	8380258	224 (1)	8380258	78 (1)	86 (1)	10	8380258

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PJ3401		PJ3402		PJ3403	PJ3404		
Sampling Date		2016/08/17 08:25		2016/08/17 09:01		2016/08/17 14:23	2016/08/17 14:30		
COC Number		08426764		08426764		08426764	08426764		
	UNITS	L1	QC Batch	W9	QC Batch	W15	W81	RDL	QC Batch
Turbidity	NTU	0.48 (1)	8379152	<0.10 (1)	8379152	<0.10 (1)	0.17 (1)	0.10	8379152

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PJ3405		PJ3406			PJ3407		
Sampling Date		2016/08/17 12:05		2016/08/17 07:45			2016/08/17 15:35		
COC Number		08426764		08426764			08426764		
	UNITS	W80	QC Batch	W82	RDL	QC Batch	T1	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.180	8380346	0.660	0.010	8380346	0.180	0.010	8380346
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	92.5	8377571	139	0.50	8377571	1470	0.50	8377571
Nitrate (N)	mg/L	<0.20	8377669	0.36	0.20	8377669	0.61	0.20	8377669
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L				0.00050	8380779	0.0622	0.00050	8380779
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00050	8380785	0.0135	0.00050	8380785
Dissolved Hardness (CaCO3)	mg/L	93.7	8378888	147	0.50	8378888	1530	0.50	8378888
Dissolved Organic Carbon (C)	mg/L		8381757	2.20	0.50	8381757		0.50	8381757
Acidity (pH 4.5)	mg/L	<0.50	8380622	<0.50	0.50	8380619	<0.50	0.50	8380619
Alkalinity (Total as CaCO3)	mg/L	78.3	8379490	97.4	0.50	8379490	8.31	0.50	8379490
Acidity (pH 8.3)	mg/L	<0.50	8380622	<0.50	0.50	8380619	3.15	0.50	8380619
Alkalinity (PP as CaCO3)	mg/L	<0.50	8379490	<0.50	0.50	8379490	<0.50	0.50	8379490
Bicarbonate (HCO3)	mg/L	95.5	8379490	119	0.50	8379490	10.1	0.50	8379490
Carbonate (CO3)	mg/L	<0.50	8379490	<0.50	0.50	8379490	<0.50	0.50	8379490
Hydroxide (OH)	mg/L	<0.50	8379490	<0.50	0.50	8379490	<0.50	0.50	8379490
Anions									
Orthophosphate (P)	mg/L	0.0044 (1)	8380357	0.0089 (1)	0.0010	8380357	0.0040 (1)	0.0010	8380357
Dissolved Sulphate (SO4)	mg/L	20	8382096	47	1.0	8382096	1700 (2)	20	8382096
Dissolved Chloride (Cl)	mg/L	<1.0	8382084	<1.0	1.0	8382084	250 (2)	5.0	8382084
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.0074	8380376	0.0080	0.0020	8382535	0.0765	0.0020	8380376
Total Ammonia (N)	mg/L	0.032	8382038	0.053	0.0050	8382038	0.39	0.0050	8382038
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8381158	0.36 (3)	0.20	8381158	0.61 (3)	0.20	8381158
Nitrite (N)	mg/L	<0.20 (3)	8381160	<0.20 (3)	0.20	8381160	<0.20 (3)	0.20	8381160
Total Phosphorus (P)	mg/L	0.0054	8382536	0.0157	0.0020	8382536	0.0921	0.0020	8382536
Physical Properties									
Conductivity	uS/cm	187	8379492	284	1.0	8379492	3040	1.0	8379492
pH	pH	8.14	8379491	8.09		8379491	6.84		8379491

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.
(2) Detection limits raised due to dilution to bring analyte within the calibrated range.
(3) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PJ3405		PJ3406			PJ3407		
Sampling Date		2016/08/17 12:05		2016/08/17 07:45			2016/08/17 15:35		
COC Number		08426764		08426764			08426764		
	UNITS	W80	QC Batch	W82	RDL	QC Batch	T1	RDL	QC Batch
Physical Properties									
Total Suspended Solids	mg/L	<4.0	8380435	<4.0 (1)	4.0	8380435	<4.0 (1)	4.0	8380435
Total Dissolved Solids	mg/L	116 (1)	8380258	178 (1)	10	8380258	2890 (1)	10	8380258
Turbidity	NTU	0.48 (1)	8379152	0.57 (1)	0.10	8379152	2.65 (1)	0.10	8379152

RDL = Reportable Detection Limit
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B673226
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PJ3408			PJ3409		
Sampling Date		2016/08/17 16:05			2016/08/17 16:20		
COC Number		08426764			08426764		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	0.250	0.010	8380346	0.180	0.010	8380346
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1680	0.50	8377571	1510	0.50	8377571
Nitrate (N)	mg/L	0.34	0.20	8377669	0.23	0.20	8377669
Misc. Inorganics							
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0593	0.00050	8380779	0.0619	0.00050	8380779
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.0147	0.00050	8380785	0.0139	0.00050	8380785
Dissolved Hardness (CaCO3)	mg/L	2150 (1)	0.50	8378888	1570	0.50	8378888
Acidity (pH 4.5)	mg/L	<0.50	0.50	8380619	<0.50	0.50	8380619
Alkalinity (Total as CaCO3)	mg/L	<0.50	0.50	8379490	11.4	0.50	8379490
Acidity (pH 8.3)	mg/L	10.5	0.50	8380619	3.03	0.50	8380619
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8379490	<0.50	0.50	8379490
Bicarbonate (HCO3)	mg/L	<0.50	0.50	8379490	13.9	0.50	8379490
Carbonate (CO3)	mg/L	<0.50	0.50	8379490	<0.50	0.50	8379490
Hydroxide (OH)	mg/L	<0.50	0.50	8379490	<0.50	0.50	8379490
Anions							
Orthophosphate (P)	mg/L	1.6 (2)	0.010	8380357	0.0035 (3)	0.0010	8380357
Dissolved Sulphate (SO4)	mg/L	1900 (4)	20	8382096	1600 (4)	20	8382096
Dissolved Chloride (Cl)	mg/L	960 (4)	20	8382084	270 (4)	5.0	8382084
Nutrients							
Dissolved Phosphorus (P)	mg/L	0.256 (1)	0.0020	8380376	0.100 (1)	0.0020	8380376
Total Ammonia (N)	mg/L	0.55	0.0050	8382038	0.40	0.0050	8382031
Nitrate plus Nitrite (N)	mg/L	0.34 (5)	0.20	8381158	0.23 (5)	0.20	8381158
Nitrite (N)	mg/L	<0.20 (5)	0.20	8381160	<0.20 (5)	0.20	8381160
Total Phosphorus (P)	mg/L	0.172	0.0020	8382536	0.0655	0.0020	8382536

RDL = Reportable Detection Limit

N/A = Not Applicable

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

(2) Detection limits raised due to dilution to bring analyte within the calibrated range.Sample arrived to laboratory past recommended hold time. Orthophospahte greater than total and dissolved. Reanalysis yields similar results.

(3) Sample arrived to laboratory past recommended hold time.

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

(5) RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B673226
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PJ3408			PJ3409		
Sampling Date		2016/08/17 16:05			2016/08/17 16:20		
COC Number		08426764			08426764		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
Physical Properties							
Conductivity	uS/cm	4340	1.0	8379492	3040	1.0	8379492
pH	pH	4.87		8379491	7.01		8379491
Physical Properties							
Total Suspended Solids	mg/L	<4.0 (1)	4.0	8380435	16 (2)	16	8380435
Total Dissolved Solids	mg/L	3840 (3)	50	8380258	2890 (1)	10	8380258
Turbidity	NTU	1.93 (1)	0.10	8379152	3.06 (1)	0.10	8379152

RDL = Reportable Detection Limit

(1) Sample arrived to laboratory past recommended hold time.

(2) Sample arrived to laboratory past recommended hold time. RDL raised due to sample matrix interference.

(3) RDL raised due to high concentration of solids in the sample. Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3401	PJ3402	PJ3403	PJ3404	PJ3405		
Sampling Date		2016/08/17 08:25	2016/08/17 09:01	2016/08/17 14:23	2016/08/17 14:30	2016/08/17 12:05		
COC Number		08426764	08426764	08426764	08426764	08426764		
	UNITS	L1	W9	W15	W81	W80	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8380068
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00535	0.00331	0.00313	0.00439	0.00314	0.00050	8383176
Dissolved Antimony (Sb)	mg/L	0.000049	0.000125	0.000026	0.000037	0.000043	0.000020	8383176
Dissolved Arsenic (As)	mg/L	0.00181	0.000243	0.000103	0.000122	0.000276	0.000020	8383176
Dissolved Barium (Ba)	mg/L	0.0527	0.139	0.0209	0.0451	0.0718	0.000020	8383176
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8383176
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8383176
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8383176
Dissolved Cadmium (Cd)	mg/L	0.0000060	0.00138	<0.0000050	0.0000330	0.0000110	0.0000050	8383176
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00011	<0.00010	0.00013	0.00010	8383176
Dissolved Cobalt (Co)	mg/L	0.0000140	0.0000070	0.0000120	0.0000170	0.0000380	0.0000050	8383176
Dissolved Copper (Cu)	mg/L	0.000465	0.000571	0.000505	0.000444	0.000427	0.000050	8383176
Dissolved Iron (Fe)	mg/L	0.0480	0.0028	0.0018	0.0167	0.0993	0.0010	8383176
Dissolved Lead (Pb)	mg/L	0.0000530	0.0000620 (1)	0.0000470	0.0000090	0.0000050	0.0000050	8383176
Dissolved Lithium (Li)	mg/L	<0.00050	0.00072	<0.00050	<0.00050	<0.00050	0.00050	8383176
Dissolved Manganese (Mn)	mg/L	0.0123	0.000100	0.000156	0.00982	0.0348	0.000050	8383176
Dissolved Molybdenum (Mo)	mg/L	0.00115	0.000991	0.000236	0.000325	0.000538	0.000050	8383176
Dissolved Nickel (Ni)	mg/L	0.000472	0.00300	0.000100	0.000136	0.000265	0.000020	8383176
Dissolved Phosphorus (P)	mg/L	0.0152	0.0054	0.0033	0.0044	0.0049	0.0020	8383176
Dissolved Selenium (Se)	mg/L	0.000375	0.00353	0.000280	0.000529	0.000571	0.000040	8383176
Dissolved Silicon (Si)	mg/L	1.36	3.37	2.77	2.87	3.21	0.050	8383176
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8383176
Dissolved Strontium (Sr)	mg/L	0.0514	0.160	0.0377	0.0445	0.0572	0.000050	8383176
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000030	<0.0000020	<0.0000020	<0.0000020	0.0000020	8383176
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8383176
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8383176
Dissolved Uranium (U)	mg/L	0.000689	0.00276	0.0000880	0.000206	0.000380	0.0000020	8383176
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8383176
Dissolved Zinc (Zn)	mg/L	0.00110	0.107	0.00072	0.00152	0.00044	0.00010	8383176
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8383176
Dissolved Calcium (Ca)	mg/L	18.6	53.6	23.8	25.2	29.3	0.050	8377380
Dissolved Magnesium (Mg)	mg/L	4.07	12.3	1.49	2.25	4.97	0.050	8377380

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3401	PJ3402	PJ3403	PJ3404	PJ3405		
Sampling Date		2016/08/17 08:25	2016/08/17 09:01	2016/08/17 14:23	2016/08/17 14:30	2016/08/17 12:05		
COC Number		08426764	08426764	08426764	08426764	08426764		
	UNITS	L1	W9	W15	W81	W80	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.712	1.05	0.346	0.420	0.553	0.050	8377380
Dissolved Sodium (Na)	mg/L	1.07	1.28	0.985	1.05	1.08	0.050	8377380
Dissolved Sulphur (S)	mg/L	3.9	16.6	3.8	3.5	5.4	3.0	8377380
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.00996	0.00346	0.0150	0.00465	0.0114	0.00050	8383429
Total Antimony (Sb)	mg/L	0.000049	0.000128	0.000151	0.000033	0.000041	0.000020	8383429
Total Arsenic (As)	mg/L	0.00195	0.000229	0.000119	0.000129	0.000300	0.000020	8383429
Total Barium (Ba)	mg/L	0.0550	0.142	0.0237	0.0488	0.0740	0.000020	8383429
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8383429
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	0.0000160	<0.0000050	<0.0000050	0.0000050	8383429
Total Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8383429
Total Cadmium (Cd)	mg/L	0.0000110	0.00134	0.0000600	0.0000350	0.0000160	0.0000050	8383429
Total Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00019	0.00011	0.00011	0.00010	8383429
Total Cobalt (Co)	mg/L	0.0000220	0.0000080	0.0000320	0.0000220	0.0000520	0.0000050	8383429
Total Copper (Cu)	mg/L	0.000531	0.000600	0.00550	0.000475	0.000491	0.000050	8383429
Total Iron (Fe)	mg/L	0.102	0.0060	0.0210	0.0172	0.159	0.0010	8383429
Total Lead (Pb)	mg/L	0.000135	0.0000240	0.00145	0.0000060	0.0000200	0.0000050	8383429
Total Lithium (Li)	mg/L	0.00058	0.00092	<0.00050	<0.00050	<0.00050	0.00050	8383429
Total Manganese (Mn)	mg/L	0.0199	0.000603	0.00189	0.0101	0.0391	0.000050	8383429
Total Molybdenum (Mo)	mg/L	0.00117	0.000959	0.000251	0.000328	0.000467	0.000050	8383429
Total Nickel (Ni)	mg/L	0.000425	0.00309	0.000341	0.000152	0.000324	0.000020	8383429
Total Phosphorus (P)	mg/L	0.0171	0.0036	0.0067	<0.0020	0.0052	0.0020	8383429
Total Selenium (Se)	mg/L	0.000394	0.00362	0.000330	0.000593	0.000564	0.000040	8383429
Total Silicon (Si)	mg/L	1.41	3.23	2.70	2.83	3.09	0.050	8383429
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8383429
Total Strontium (Sr)	mg/L	0.0495	0.153	0.0354	0.0438	0.0550	0.000050	8383429
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000020	8383429
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8383429
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8383429
Total Uranium (U)	mg/L	0.000667	0.00276	0.0000930	0.000199	0.000367	0.0000020	8383429
Total Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8383429
Total Zinc (Zn)	mg/L	0.00195	0.107	0.0177	0.00160	0.00062	0.00010	8383429
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8383429
Total Calcium (Ca)	mg/L	18.6	51.9	21.3	25.8	28.2	0.050	8377573
Total Magnesium (Mg)	mg/L	4.39	13.9	1.67	2.43	5.38	0.050	8377573

RDL = Reportable Detection Limit

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Maxxam Job #: B673226
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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3401	PJ3402	PJ3403	PJ3404	PJ3405		
Sampling Date		2016/08/17 08:25	2016/08/17 09:01	2016/08/17 14:23	2016/08/17 14:30	2016/08/17 12:05		
COC Number		08426764	08426764	08426764	08426764	08426764		
	UNITS	L1	W9	W15	W81	W80	RDL	QC Batch
Total Potassium (K)	mg/L	0.716	1.05	0.489	0.420	0.562	0.050	8377573
Total Sodium (Na)	mg/L	1.10	1.37	1.26	1.08	1.16	0.050	8377573
Total Sulphur (S)	mg/L	4.2	18.5	4.2	3.9	5.9	3.0	8377573
RDL = Reportable Detection Limit								

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3406			PJ3407		
Sampling Date		2016/08/17 07:45			2016/08/17 15:35		
COC Number		08426764			08426764		
	UNITS	W82	RDL	QC Batch	T1	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	0.010	8380068	0.123	0.010	8380068
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00526	0.00050	8383176	0.0109	0.0025	8386791
Dissolved Antimony (Sb)	mg/L	0.000231	0.000020	8383176	0.0478	0.00010	8383176
Dissolved Arsenic (As)	mg/L	0.000136	0.000020	8383176	0.00663	0.00010	8383176
Dissolved Barium (Ba)	mg/L	0.138	0.000020	8383176	0.0745	0.00010	8383176
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8383176	<0.000050	0.000050	8383176
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8383176	<0.000025	0.000025	8383176
Dissolved Boron (B)	mg/L	<0.010	0.010	8383176	<0.050	0.050	8383176
Dissolved Cadmium (Cd)	mg/L	0.00123	0.0000050	8383176	0.0120	0.000025	8383176
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	8383176	<0.00050	0.00050	8383176
Dissolved Cobalt (Co)	mg/L	0.000125	0.0000050	8383176	0.00195	0.000025	8383176
Dissolved Copper (Cu)	mg/L	0.000949	0.000050	8383176	0.376	0.00025	8383176
Dissolved Iron (Fe)	mg/L	0.0776	0.0010	8383176	0.0530	0.0050	8383176
Dissolved Lead (Pb)	mg/L	0.0000620	0.0000050	8383176	0.0379	0.000025	8383176
Dissolved Lithium (Li)	mg/L	<0.00050	0.00050	8383176	0.0125	0.0025	8383176
Dissolved Manganese (Mn)	mg/L	0.0749	0.000050	8383176	0.431	0.00025	8383176
Dissolved Molybdenum (Mo)	mg/L	0.000329	0.000050	8383176	0.0907	0.00025	8383176
Dissolved Nickel (Ni)	mg/L	0.00769	0.000020	8383176	0.00768	0.00010	8383176
Dissolved Phosphorus (P)	mg/L	0.0138	0.0020	8383176	0.038	0.010	8383176
Dissolved Selenium (Se)	mg/L	0.00179	0.000040	8383176	1.89	0.00020	8383176
Dissolved Silicon (Si)	mg/L	3.33	0.050	8383176	1.94	0.25	8383176
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8383176	0.00424	0.000025	8383176
Dissolved Strontium (Sr)	mg/L	0.129	0.000050	8383176	2.45	0.00025	8383176
Dissolved Thallium (Tl)	mg/L	0.0000040	0.0000020	8383176	0.00127	0.000010	8383176
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8383176	<0.0010	0.0010	8383176
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8383176	<0.0025	0.0025	8383176
Dissolved Uranium (U)	mg/L	0.000320	0.0000020	8383176	0.000515	0.000010	8383176
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8383176	<0.0010	0.0010	8383176
Dissolved Zinc (Zn)	mg/L	0.166	0.00010	8383176	1.39	0.00050	8383176
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8383176	<0.00050	0.00050	8383176
Dissolved Calcium (Ca)	mg/L	51.2	0.050	8377380	608	0.25	8377380
Dissolved Magnesium (Mg)	mg/L	4.66	0.050	8377380	2.69	0.25	8377380
Dissolved Potassium (K)	mg/L	1.08	0.050	8377380	45.5	0.25	8377380
RDL = Reportable Detection Limit							

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3406			PJ3407		
Sampling Date		2016/08/17 07:45			2016/08/17 15:35		
COC Number		08426764			08426764		
	UNITS	W82	RDL	QC Batch	T1	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	1.44	0.050	8377380	170	0.25	8377380
Dissolved Sulphur (S)	mg/L	13.9	3.0	8377380	808	15	8377380
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0140	0.00050	8383429	0.0175	0.00050	8383429
Total Antimony (Sb)	mg/L	0.000228	0.000020	8383429	0.0471	0.000020	8383429
Total Arsenic (As)	mg/L	0.000168	0.000020	8383429	0.00669	0.000020	8383429
Total Barium (Ba)	mg/L	0.144	0.000020	8383429	0.0754	0.000020	8383429
Total Beryllium (Be)	mg/L	<0.000010	0.000010	8383429	<0.000010	0.000010	8383429
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8383429	0.0000070	0.0000050	8383429
Total Boron (B)	mg/L	<0.010	0.010	8383429	0.017	0.010	8383429
Total Cadmium (Cd)	mg/L	0.00156	0.0000050	8383429	0.0111	0.0000050	8383429
Total Chromium (Cr)	mg/L	<0.00010	0.00010	8383429	<0.00010	0.00010	8383429
Total Cobalt (Co)	mg/L	0.000229	0.0000050	8383429	0.00196	0.0000050	8383429
Total Copper (Cu)	mg/L	0.00158	0.000050	8383429	0.414	0.000050	8383429
Total Iron (Fe)	mg/L	0.218	0.0010	8383429	0.232	0.0010	8383429
Total Lead (Pb)	mg/L	0.000275	0.0000050	8383429	0.0829	0.0000050	8383429
Total Lithium (Li)	mg/L	0.00093	0.00050	8383429	0.0122	0.00050	8383429
Total Manganese (Mn)	mg/L	0.100	0.000050	8383429	0.415	0.000050	8383429
Total Molybdenum (Mo)	mg/L	0.000325	0.000050	8383429	0.0935	0.000050	8383429
Total Nickel (Ni)	mg/L	0.00809	0.000020	8383429	0.00804	0.000020	8383429
Total Phosphorus (P)	mg/L	0.0152	0.0020	8383429	0.0693	0.0020	8383429
Total Selenium (Se)	mg/L	0.00187	0.000040	8383429	1.83	0.000040	8383429
Total Silicon (Si)	mg/L	3.10	0.050	8383429	1.76	0.050	8383429
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	8383429	0.00527	0.0000050	8383429
Total Strontium (Sr)	mg/L	0.120	0.000050	8383429	2.21	0.000050	8383429
Total Thallium (Tl)	mg/L	0.0000040	0.0000020	8383429	0.00131	0.0000020	8383429
Total Tin (Sn)	mg/L	<0.00020	0.00020	8383429	<0.00020	0.00020	8383429
Total Titanium (Ti)	mg/L	<0.00050	0.00050	8383429	<0.00050	0.00050	8383429
Total Uranium (U)	mg/L	0.000309	0.0000020	8383429	0.000562	0.0000020	8383429
Total Vanadium (V)	mg/L	<0.00020	0.00020	8383429	<0.00020	0.00020	8383429
Total Zinc (Zn)	mg/L	0.177	0.00010	8383429	1.35	0.00010	8383429
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	8383429	<0.00010	0.00010	8383429
Total Calcium (Ca)	mg/L	47.5	0.050	8377573	583	0.050	8377573
Total Magnesium (Mg)	mg/L	5.01	0.050	8377573	2.87	0.050	8377573
Total Potassium (K)	mg/L	1.04	0.050	8377573	47.3	0.050	8377573
RDL = Reportable Detection Limit							

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3406			PJ3407		
Sampling Date		2016/08/17 07:45			2016/08/17 15:35		
COC Number		08426764			08426764		
	UNITS	**W82**	**RDL**	**QC Batch**	**T1**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	1.48	0.050	8377573	178	0.050	8377573
Total Sulphur (S)	mg/L	14.9	3.0	8377573	809	3.0	8377573
RDL = Reportable Detection Limit							

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3408			PJ3409		
Sampling Date		2016/08/17 16:05			2016/08/17 16:20		
COC Number		08426764			08426764		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	0.172	0.010	8380068	0.124	0.010	8380068
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.0876 (1)	0.0025	8383176	0.0098	0.0025	8386791
Dissolved Antimony (Sb)	mg/L	0.0652	0.00010	8383176	0.0480	0.00010	8383176
Dissolved Arsenic (As)	mg/L	0.00927	0.00010	8383176	0.00671	0.00010	8383176
Dissolved Barium (Ba)	mg/L	0.0979	0.00010	8383176	0.0755	0.00010	8383176
Dissolved Beryllium (Be)	mg/L	<0.000050	0.000050	8383176	<0.000050	0.000050	8383176
Dissolved Bismuth (Bi)	mg/L	0.000030	0.000025	8383176	<0.000025	0.000025	8383176
Dissolved Boron (B)	mg/L	<0.050	0.050	8383176	<0.050	0.050	8383176
Dissolved Cadmium (Cd)	mg/L	0.00552	0.000025	8383176	0.0116	0.000025	8383176
Dissolved Chromium (Cr)	mg/L	<0.00050	0.00050	8383176	<0.00050	0.00050	8383176
Dissolved Cobalt (Co)	mg/L	0.00125	0.000025	8383176	0.00192	0.000025	8383176
Dissolved Copper (Cu)	mg/L	0.971	0.00025	8383176	0.378	0.00025	8383176
Dissolved Iron (Fe)	mg/L	0.638	0.0050	8383176	0.0610	0.0050	8383176
Dissolved Lead (Pb)	mg/L	0.254	0.000025	8383176	0.0400	0.000025	8383176
Dissolved Lithium (Li)	mg/L	0.0165	0.0025	8383176	0.0120	0.0025	8386791
Dissolved Manganese (Mn)	mg/L	0.161	0.00025	8383176	0.430	0.00025	8383176
Dissolved Molybdenum (Mo)	mg/L	0.101	0.00025	8383176	0.0915	0.00025	8383176
Dissolved Nickel (Ni)	mg/L	0.00877	0.00010	8383176	0.00760	0.00010	8383176
Dissolved Phosphorus (P)	mg/L	0.121	0.010	8383176	0.035	0.010	8383176
Dissolved Selenium (Se)	mg/L	3.07	0.00020	8383176	1.80	0.00020	8383176
Dissolved Silicon (Si)	mg/L	1.69	0.25	8383176	1.94	0.25	8383176
Dissolved Silver (Ag)	mg/L	0.00110	0.000025	8383176	0.00384	0.000025	8383176
Dissolved Strontium (Sr)	mg/L	3.91	0.00025	8383176	2.41	0.00025	8383176
Dissolved Thallium (Tl)	mg/L	0.00124	0.000010	8383176	0.00136	0.000010	8383176
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	8383176	<0.0010	0.0010	8383176
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	8383176	<0.0025	0.0025	8383176
Dissolved Uranium (U)	mg/L	0.000399	0.000010	8383176	0.000523	0.000010	8383176
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	8383176	<0.0010	0.0010	8383176
Dissolved Zinc (Zn)	mg/L	0.887	0.00050	8383176	1.40	0.00050	8383176
Dissolved Zirconium (Zr)	mg/L	<0.00050	0.00050	8383176	<0.00050	0.00050	8383176
Dissolved Calcium (Ca)	mg/L	859	0.25	8377380	624	0.25	8377380
Dissolved Magnesium (Mg)	mg/L	1.53	0.25	8377380	2.61	0.25	8377380

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3408			PJ3409		
Sampling Date		2016/08/17 16:05			2016/08/17 16:20		
COC Number		08426764			08426764		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
Dissolved Potassium (K)	mg/L	70.1	0.25	8377380	47.5	0.25	8377380
Dissolved Sodium (Na)	mg/L	257	0.25	8377380	171	0.25	8377380
Dissolved Sulphur (S)	mg/L	1290	15	8377380	776	15	8377380
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.043	0.015	8382152	0.0172	0.00050	8383429
Total Antimony (Sb)	mg/L	0.0492	0.00010	8382152	0.0473	0.000020	8383429
Total Arsenic (As)	mg/L	0.00849	0.00010	8382152	0.00659	0.000020	8383429
Total Barium (Ba)	mg/L	0.0808	0.00025	8382152	0.0743	0.000020	8383429
Total Beryllium (Be)	mg/L	<0.000050	0.000050	8382152	<0.000010	0.000010	8383429
Total Bismuth (Bi)	mg/L	<0.000050	0.000050	8382152	0.0000190	0.0000050	8383429
Total Boron (B)	mg/L	<0.050	0.050	8382152	0.017	0.010	8383429
Total Cadmium (Cd)	mg/L	0.0108	0.000025	8382152	0.0110	0.0000050	8383429
Total Chromium (Cr)	mg/L	<0.00050	0.00050	8382152	<0.00010	0.00010	8383429
Total Cobalt (Co)	mg/L	0.00186	0.000050	8382152	0.00192	0.0000050	8383429
Total Copper (Cu)	mg/L	0.438	0.00050	8382152	0.415	0.000050	8383429
Total Iron (Fe)	mg/L	0.337	0.025	8382152	0.234	0.0010	8383429
Total Lead (Pb)	mg/L	0.116	0.00010	8382152	0.0827	0.0000050	8383429
Total Lithium (Li)	mg/L	0.0126	0.0025	8382152	0.0107	0.00050	8383429
Total Manganese (Mn)	mg/L	0.392	0.00050	8382152	0.421	0.000050	8383429
Total Molybdenum (Mo)	mg/L	0.0491	0.00025	8382152	0.0912	0.000050	8383429
Total Nickel (Ni)	mg/L	0.00817	0.00050	8382152	0.00799	0.000020	8383429
Total Phosphorus (P)	mg/L				0.0710	0.0020	8383429
Total Selenium (Se)	mg/L	1.73	0.00020	8382152	1.80	0.000040	8383429
Total Silicon (Si)	mg/L	1.93	0.25	8382152	1.76	0.050	8383429
Total Silver (Ag)	mg/L	0.00700	0.000050	8382152	0.00524	0.0000050	8383429
Total Strontium (Sr)	mg/L	2.59	0.00025	8382152	2.18	0.000050	8383429
Total Thallium (Tl)	mg/L	0.00136	0.000010	8382152	0.00133	0.0000020	8383429
Total Tin (Sn)	mg/L	<0.0010	0.0010	8382152	<0.00020	0.00020	8383429
Total Titanium (Ti)	mg/L	<0.010	0.010	8382152	<0.00050	0.00050	8383429
Total Uranium (U)	mg/L	0.000593	0.000025	8382152	0.000548	0.0000020	8383429
Total Vanadium (V)	mg/L	<0.0010	0.0010	8382152	<0.00020	0.00020	8383429
Total Zinc (Zn)	mg/L	1.35	0.0050	8382152	1.35	0.00010	8383429
Total Zirconium (Zr)	mg/L	<0.00050	0.00050	8382152	<0.00010	0.00010	8383429
Total Calcium (Ca)	mg/L	669	1.3	8377573	599	0.050	8377573
Total Magnesium (Mg)	mg/L	2.5	1.3	8377573	2.85	0.050	8377573
RDL = Reportable Detection Limit							

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Maxxam Job #: B673226
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PJ3408			PJ3409		
Sampling Date		2016/08/17 16:05			2016/08/17 16:20		
COC Number		08426764			08426764		
	UNITS	T2	RDL	QC Batch	T3	RDL	QC Batch
Total Potassium (K)	mg/L	50.4	1.3	8377573	47.1	0.050	8377573
Total Sodium (Na)	mg/L	189	1.3	8377573	181	0.050	8377573
Total Sulphur (S)	mg/L	870	15	8377573	825	3.0	8377573
RDL = Reportable Detection Limit							

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Report Date: 2016/09/28

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	19.0°C
Package 2	19.0°C

Sample PJ3408-01 : Dissolved greater than total metals for some parameters. Reanalysis yields similar results.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample PJ3407-06 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PJ3407-06 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PJ3408-06 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PJ3408-05 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.
Sample PJ3409-06 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PJ3409-06 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PJ3407, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PJ3409, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Maxxam Job #: B673226
Report Date: 2016/09/28

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8379152	Turbidity	2016/08/27			101	80 - 120	<0.10	NTU	NC	20
8379490	Alkalinity (PP as CaCO3)	2016/08/28					<0.50	mg/L	NC	20
8379490	Alkalinity (Total as CaCO3)	2016/08/28	NC	80 - 120	98	80 - 120	<0.50	mg/L	0.75	20
8379490	Bicarbonate (HCO3)	2016/08/28					<0.50	mg/L	0.75	20
8379490	Carbonate (CO3)	2016/08/28					<0.50	mg/L	NC	20
8379490	Hydroxide (OH)	2016/08/28					<0.50	mg/L	NC	20
8379491	pH	2016/08/28			102	97 - 103			0.77	N/A
8379492	Conductivity	2016/08/28			100	80 - 120	<1.0	uS/cm	0	20
8380068	Bromide (Br)	2016/08/29	117	78 - 120	108	80 - 120	<0.010	mg/L	NC	20
8380258	Total Dissolved Solids	2016/08/30	100	80 - 120	108	80 - 120	<10	mg/L	1.7	20
8380346	Fluoride (F)	2016/08/29	96	80 - 120	98	80 - 120	0.011, RDL=0.010	mg/L	NC	20
8380357	Orthophosphate (P)	2016/08/27	104	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20
8380376	Dissolved Phosphorus (P)	2016/08/27	NC	80 - 120	98	80 - 120	<0.0020	mg/L	0.13	20
8380435	Total Suspended Solids	2016/08/30	114	80 - 120	105	80 - 120	<4.0	mg/L	NC	20
8380619	Acidity (pH 4.5)	2016/08/29					<0.50	mg/L	NC	20
8380619	Acidity (pH 8.3)	2016/08/29			96	80 - 120	<0.50	mg/L	NC	20
8380622	Acidity (pH 4.5)	2016/08/29					<0.50	mg/L	NC	20
8380622	Acidity (pH 8.3)	2016/08/29			97	80 - 120	<0.50	mg/L	NC	20
8380779	Strong Acid Dissoc. Cyanide (CN)	2016/08/29	96	80 - 120	100	80 - 120	<0.00050	mg/L	3.0	20
8380785	Weak Acid Dissoc. Cyanide (CN)	2016/08/29			99	80 - 120	<0.00050	mg/L		
8381158	Nitrate plus Nitrite (N)	2016/08/27	NC	80 - 120	104	80 - 120	<0.0020	mg/L	1.4	25
8381160	Nitrite (N)	2016/08/27	100	80 - 120	94	80 - 120	<0.0020	mg/L	NC	25
8381757	Dissolved Organic Carbon (C)	2016/08/29	107	80 - 120	108	80 - 120	<0.50	mg/L	3.5	20
8382031	Total Ammonia (N)	2016/08/30	NC	80 - 120	101	80 - 120	<0.0050	mg/L	5.5	20
8382038	Total Ammonia (N)	2016/08/30	NC	80 - 120	98	80 - 120	<0.0050	mg/L	0.88	20
8382084	Dissolved Chloride (Cl)	2016/08/31	105	80 - 120	105	80 - 120	<1.0	mg/L	NC	20
8382096	Dissolved Sulphate (SO4)	2016/08/31	99	80 - 120	107	80 - 120	<1.0	mg/L	NC	20
8382152	Total Aluminum (Al)	2016/09/01	108	80 - 120	109	80 - 120	<0.0030	mg/L	1.9	20
8382152	Total Antimony (Sb)	2016/09/01	106	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8382152	Total Arsenic (As)	2016/09/01	112	80 - 120	106	80 - 120	<0.000020	mg/L	3.5	20
8382152	Total Barium (Ba)	2016/09/01	NC	80 - 120	102	80 - 120	<0.000050	mg/L	1.6	20
8382152	Total Beryllium (Be)	2016/09/01	103	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8382152	Total Bismuth (Bi)	2016/09/01	105	80 - 120	104	80 - 120	<0.000010	mg/L	NC	20
8382152	Total Boron (B)	2016/09/01	105	80 - 120	99	80 - 120	<0.010	mg/L	NC	20
8382152	Total Cadmium (Cd)	2016/09/01	105	80 - 120	108	80 - 120	<0.0000050	mg/L	NC	20
8382152	Total Chromium (Cr)	2016/09/01	108	80 - 120	107	80 - 120	<0.00010	mg/L	NC	20
8382152	Total Cobalt (Co)	2016/09/01	106	80 - 120	106	80 - 120	<0.000010	mg/L	NC	20
8382152	Total Copper (Cu)	2016/09/01	107	80 - 120	114	80 - 120	0.00017, RDL=0.00010	mg/L	2.2	20
8382152	Total Iron (Fe)	2016/09/01	115	80 - 120	111	80 - 120	<0.0050	mg/L	NC	20
8382152	Total Lead (Pb)	2016/09/01	105	80 - 120	107	80 - 120	<0.000020	mg/L	NC	20
8382152	Total Lithium (Li)	2016/09/01	103	80 - 120	100	80 - 120	<0.00050	mg/L	2.4	20
8382152	Total Manganese (Mn)	2016/09/01	NC	80 - 120	108	80 - 120	<0.00010	mg/L	0.19	20
8382152	Total Molybdenum (Mo)	2016/09/01	108	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
8382152	Total Nickel (Ni)	2016/09/01	103	80 - 120	106	80 - 120	<0.00010	mg/L	NC	20
8382152	Total Selenium (Se)	2016/09/01	108	80 - 120	106	80 - 120	<0.000040	mg/L	NC	20
8382152	Total Silicon (Si)	2016/09/01					<0.050	mg/L	0.14	20
8382152	Total Silver (Ag)	2016/09/01	105	80 - 120	101	80 - 120	<0.000010	mg/L	NC	20
8382152	Total Strontium (Sr)	2016/09/01	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.055	20
8382152	Total Thallium (Tl)	2016/09/01	103	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
8382152	Total Tin (Sn)	2016/09/01	104	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
8382152	Total Titanium (Ti)	2016/09/01	101	80 - 120	101	80 - 120	<0.0020	mg/L	NC	20
8382152	Total Uranium (U)	2016/09/01	109	80 - 120	107	80 - 120	<0.0000050	mg/L	0.55	20
8382152	Total Vanadium (V)	2016/09/01	109	80 - 120	105	80 - 120	<0.00020	mg/L	NC	20
8382152	Total Zinc (Zn)	2016/09/01	107	80 - 120	111	80 - 120	<0.0010	mg/L	NC	20
8382152	Total Zirconium (Zr)	2016/09/01					<0.00010	mg/L	NC	20
8382535	Dissolved Phosphorus (P)	2016/08/30	90	80 - 120	84	80 - 120	<0.0020	mg/L	NC	20
8382536	Total Phosphorus (P)	2016/08/30	NC	80 - 120	93	80 - 120	<0.0020	mg/L	3.3	20
8383176	Dissolved Aluminum (Al)	2016/09/01	102	80 - 120	102	80 - 120	<0.00050	mg/L	1.2	20
8383176	Dissolved Antimony (Sb)	2016/09/01	97	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8383176	Dissolved Arsenic (As)	2016/09/01	102	80 - 120	101	80 - 120	<0.000020	mg/L	1.1	20
8383176	Dissolved Barium (Ba)	2016/09/01	NC	80 - 120	99	80 - 120	<0.000020	mg/L	0.15	20
8383176	Dissolved Beryllium (Be)	2016/09/01	98	80 - 120	94	80 - 120	<0.000010	mg/L	NC	20
8383176	Dissolved Bismuth (Bi)	2016/09/01	99	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8383176	Dissolved Boron (B)	2016/09/01	99	80 - 120	97	80 - 120	<0.010	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8383176	Dissolved Cadmium (Cd)	2016/09/01	96	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8383176	Dissolved Chromium (Cr)	2016/09/01	101	80 - 120	104	80 - 120	<0.00010	mg/L	NC	20
8383176	Dissolved Cobalt (Co)	2016/09/01	99	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8383176	Dissolved Copper (Cu)	2016/09/01	98	80 - 120	103	80 - 120	<0.000050	mg/L	2.1	20
8383176	Dissolved Iron (Fe)	2016/09/01	100	80 - 120	110	80 - 120	<0.0010	mg/L	1.3	20
8383176	Dissolved Lead (Pb)	2016/09/01	100	80 - 120	102	80 - 120	<0.0000050	mg/L	5.8	20
8383176	Dissolved Lithium (Li)	2016/09/01	100	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20
8383176	Dissolved Manganese (Mn)	2016/09/01	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.55	20
8383176	Dissolved Molybdenum (Mo)	2016/09/01	NC	80 - 120	101	80 - 120	<0.000050	mg/L	0.61	20
8383176	Dissolved Nickel (Ni)	2016/09/01	102	80 - 120	103	80 - 120	<0.000020	mg/L	0.42	20
8383176	Dissolved Phosphorus (P)	2016/09/01					<0.0020	mg/L	0.63	20
8383176	Dissolved Selenium (Se)	2016/09/01	100	80 - 120	100	80 - 120	<0.000040	mg/L	4.9	20
8383176	Dissolved Silicon (Si)	2016/09/01					<0.050	mg/L	0.66	20
8383176	Dissolved Silver (Ag)	2016/09/01	103	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8383176	Dissolved Strontium (Sr)	2016/09/01	NC	80 - 120	96	80 - 120	<0.000050	mg/L	2.1	20
8383176	Dissolved Thallium (Tl)	2016/09/01	98	80 - 120	100	80 - 120	<0.0000020	mg/L	NC	20
8383176	Dissolved Tin (Sn)	2016/09/01	97	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20
8383176	Dissolved Titanium (Ti)	2016/09/01	100	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
8383176	Dissolved Uranium (U)	2016/09/01	109	80 - 120	105	80 - 120	<0.0000020	mg/L	1.5	20
8383176	Dissolved Vanadium (V)	2016/09/01	99	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8383176	Dissolved Zinc (Zn)	2016/09/01	102	80 - 120	103	80 - 120	<0.00010	mg/L	0.73	20
8383176	Dissolved Zirconium (Zr)	2016/09/01					<0.00010	mg/L	NC	20
8383429	Total Aluminum (Al)	2016/09/01	94	80 - 120	100	80 - 120	<0.00050	mg/L	2.4	20
8383429	Total Antimony (Sb)	2016/09/01	98	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8383429	Total Arsenic (As)	2016/09/01	96	80 - 120	98	80 - 120	<0.000020	mg/L	0.26	20
8383429	Total Barium (Ba)	2016/09/01	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.65	20
8383429	Total Beryllium (Be)	2016/09/01	98	80 - 120	95	80 - 120	<0.000010	mg/L	NC	20
8383429	Total Bismuth (Bi)	2016/09/01	97	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8383429	Total Boron (B)	2016/09/01	92	80 - 120	93	80 - 120	<0.010	mg/L	NC	20
8383429	Total Cadmium (Cd)	2016/09/01	93	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
8383429	Total Chromium (Cr)	2016/09/01	100	80 - 120	105	80 - 120	<0.00010	mg/L	NC	20
8383429	Total Cobalt (Co)	2016/09/01	100	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8383429	Total Copper (Cu)	2016/09/01	98	80 - 120	105	80 - 120	<0.000050	mg/L	0	20
8383429	Total Iron (Fe)	2016/09/01	NC	80 - 120	110	80 - 120	<0.0010	mg/L	3.4	20
8383429	Total Lead (Pb)	2016/09/01	98	80 - 120	104	80 - 120	<0.0000050	mg/L	3.8	20
8383429	Total Lithium (Li)	2016/09/01	92	80 - 120	88	80 - 120	<0.00050	mg/L	NC	20
8383429	Total Manganese (Mn)	2016/09/01	NC	80 - 120	102	80 - 120	<0.000050	mg/L	0.56	20
8383429	Total Molybdenum (Mo)	2016/09/01	NC	80 - 120	102	80 - 120	<0.000050	mg/L	2.8	20
8383429	Total Nickel (Ni)	2016/09/01	100	80 - 120	103	80 - 120	<0.000020	mg/L	2.3	20
8383429	Total Phosphorus (P)	2016/09/01					<0.0020	mg/L	3.0	20
8383429	Total Selenium (Se)	2016/09/01	96	80 - 120	99	80 - 120	<0.000040	mg/L	9.3	20
8383429	Total Silicon (Si)	2016/09/01					<0.050	mg/L	2.9	20
8383429	Total Silver (Ag)	2016/09/01	102	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8383429	Total Strontium (Sr)	2016/09/01	NC	80 - 120	96	80 - 120	<0.000050	mg/L	0.53	20
8383429	Total Thallium (Tl)	2016/09/01	95	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
8383429	Total Tin (Sn)	2016/09/01	100	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8383429	Total Titanium (Ti)	2016/09/01	94	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
8383429	Total Uranium (U)	2016/09/01	99	80 - 120	104	80 - 120	<0.0000020	mg/L	3.4	20
8383429	Total Vanadium (V)	2016/09/01	101	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8383429	Total Zinc (Zn)	2016/09/01	104	80 - 120	102	80 - 120	<0.00010	mg/L	0.82	20
8383429	Total Zirconium (Zr)	2016/09/01					<0.00010	mg/L	NC	20
8386791	Dissolved Aluminum (Al)	2016/09/04	113	80 - 120	110	80 - 120	<0.00050	mg/L	NC	20
8386791	Dissolved Lithium (Li)	2016/09/04	100	80 - 120	109	80 - 120	<0.00050	mg/L	7.0	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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

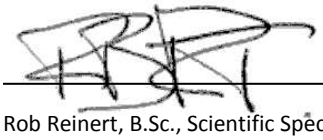
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B673226
Report Date: 2016/09/28

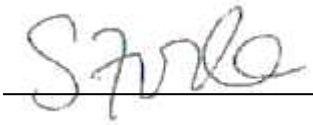
YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

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



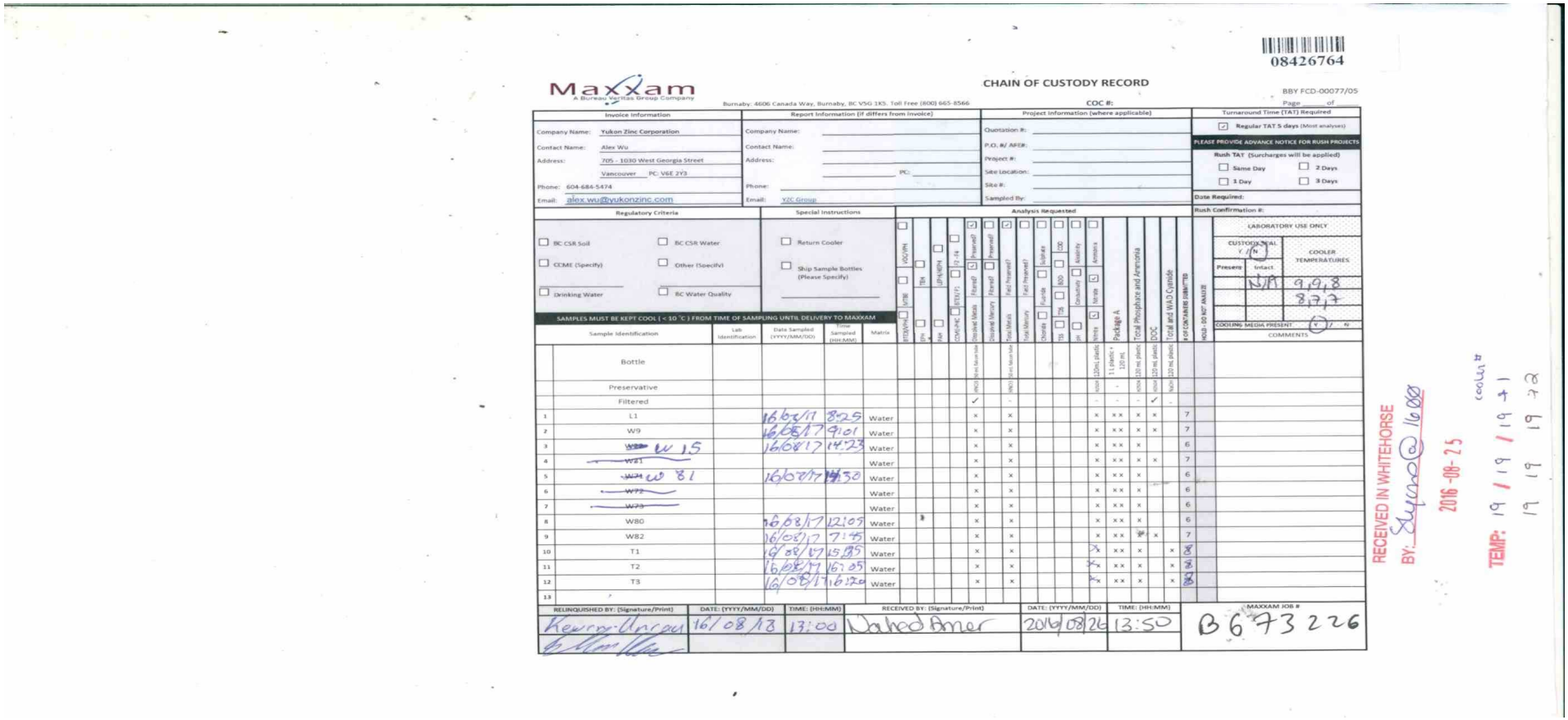
Rob Reinert, B.Sc., Scientific Specialist



Suwan Fock, B.Sc., QP, Inorganics Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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08426764

Maxxam
A Bureau Veritas Group Company

CHAIN OF CUSTODY RECORD

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

COC #:

BBY FCD-00077/05

Page ____ of ____

Invoice Information
Company Name: Yukon Zinc Corporation
Contact Name: Alex Wu
Address: 705 - 1030 West Georgia Street, Vancouver, PC: V6E 2Y3
Phone: 604-684-5474
Email: alex.wu@yukonzinc.com

Report Information (if differs from invoice)
Company Name:
Contact Name:
Address: PC:
Phone:
Email: YZC Group

Project Information (where applicable)
Quotation #:
P.O. #/ AFE#:
Project #:
Site Location:
Site #:
Sampled By:

Turnaround Time (TAT) Required
☑ Regular TAT 5 days (Most analyses)
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Rush TAT (Surcharges will be applied)
☐ Same Day ☐ 2 Days ☐ 1 Day ☐ 3 Days
Date Required:
Rush Confirmation #:

Regulatory Criteria
☐ BC CSR Soil ☐ BC CSR Water ☐ CCME (Specify) ☐ Other (Specify) ☐ Drinking Water ☐ BC Water Quality

Special Instructions
☐ Return Cooler ☐ Ship Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

LABORATORY USE ONLY
CUSTODY SEAL Y / N — Present / Intact
COOLER TEMPERATURES: N/A 9.9.8 / 8.7.7
COOLING MEDIA PRESENT: Y / N
COMMENTS

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	Package A	Total Phosphorus and Ammonia	DOC	Total and WAD Cyanide	# of CONTAINERS SUBMITTED
	Bottle									
	Preservative									
	Filtered									
1	L1		16/08/17	8:25	Water	x	x x	x	x	7
2	W9		16/08/17	9:01	Water	x	x x	x	x	7
3	~~W20~~ W 15		16/08/17	14:23	Water	x	x x	x		6
4	~~W21~~				Water	x	x x	x	x	7
5	~~W24~~ W 81		16/08/17	~~14~~ 13:30	Water	x	x x	x		6
6	~~W22~~				Water	x	x x	x		6
7	~~W23~~				Water	x	x x	x		6
8	W80		16/08/17	12:07	Water	x	x x	x		6
9	W82		16/08/17	7:45	Water	x	x x	x	x	7
10	T1		16/08/17	15:35	Water	x	x x	x	x	8
11	T2		16/08/17	16:05	Water	x	x x	x	x	8
12	T3		16/08/17	16:20	Water	x	x x	x	x	8
13										

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
Kewroy Unrau	16/08/18	13:00	Dahad Amer	2016/08/26	13:50	B673226

RECEIVED IN WHITEHORSE
BY: Lyana @ 16:00
2016-08-25
TEMP: 19/19/19 cooler #

Your C.O.C. #: 08426944

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/09/28
Report #: R2270998
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B674769
Received: 2016/08/31, 14:00

Sample Matrix: Water
Samples Received: 24

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	24	N/A	2016/09/03	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	24	2016/09/01	2016/09/02	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	24	N/A	2016/09/03	AB SOP-00020	SM 22 4500-Cl G m
Conductance - water	24	N/A	2016/09/02	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	24	N/A	2016/09/01	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	24	N/A	2016/09/07	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	24	N/A	2016/09/08	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	24	N/A	2016/09/07	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	24	N/A	2016/09/07	BBY7SOP-00002	EPA 6020B R2 m
Ammonia-N (Preserved)	24	N/A	2016/09/03	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	24	N/A	2016/09/01	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	24	N/A	2016/09/01	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	24	N/A	2016/09/02	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	24	N/A	2016/09/03	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	24	N/A	2016/09/02	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	24	N/A	2016/09/01	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry (1)	24	N/A	2016/09/03	AB SOP-00018	SM 22 4500-SO4 E m
Total Dissolved Solids (Filt. Residue)	18	2016/09/02	2016/09/03	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	2	2016/09/03	2016/09/06	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	4	2016/09/09	2016/09/12	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	7	2016/09/02	2016/09/03	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	16	2016/09/03	2016/09/03	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/09/10	2016/09/10	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	19	N/A	2016/09/03	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	5	N/A	2016/09/10	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	24	2016/09/02	2016/09/03	BBY6SOP-00034	SM 22 2540 D
Turbidity	24	N/A	2016/09/01	BBY6SOP-00027	SM 22 2130 B m

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.

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Your C.O.C. #: 08426944

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/09/28
Report #: R2270998
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B674769

Received: 2016/08/31, 14:00

(1) This test was performed by Maxxam Edmonton Environmental
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B674769
Report Date: 2016/09/28

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2878		PK2879			PK2880		
Sampling Date		2016/08/29 09:25		2016/08/29 09:11			2016/08/29 14:04		
COC Number		08426944		08426944			08426944		
	UNITS	MW05-1A	QC Batch	MW05-1B	RDL	QC Batch	MW05-2A	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.440	8384694	0.140	0.010	8384694	0.062	0.010	8384694
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8383493	<0.20	0.20	8383493	<0.20	0.20	8383493
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	124	8383209	108	0.50	8383209	149	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	8386755	<0.50	0.50	8386755	<0.50	0.50	8386755
Alkalinity (Total as CaCO3)	mg/L	102	8385000	104	0.50	8384993	146	0.50	8385000
Acidity (pH 8.3)	mg/L	<0.50	8386755	<0.50	0.50	8386755	<0.50	0.50	8386755
Alkalinity (PP as CaCO3)	mg/L	<0.50	8385000	<0.50	0.50	8384993	<0.50	0.50	8385000
Bicarbonate (HCO3)	mg/L	124	8385000	126	0.50	8384993	179	0.50	8385000
Carbonate (CO3)	mg/L	<0.50	8385000	<0.50	0.50	8384993	<0.50	0.50	8385000
Hydroxide (OH)	mg/L	<0.50	8385000	<0.50	0.50	8384993	<0.50	0.50	8385000
Anions									
Orthophosphate (P)	mg/L	0.10	8384846	0.41	0.0010	8384843	<0.0010	0.0010	8384846
Dissolved Sulphate (SO4)	mg/L	27	8386582	6.6	1.0	8386582	6.2	1.0	8386582
Dissolved Chloride (Cl)	mg/L	<1.0	8386580	<1.0	1.0	8386580	<1.0	1.0	8386580
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.136 (1)	8388833	0.449 (1)	0.0020	8388833	0.326 (1)	0.0020	8388833
Total Ammonia (N)	mg/L	0.54	8387302	0.62	0.0050	8387301	0.040	0.0050	8387301
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8385397	<0.20 (2)	0.20	8385393	<0.20 (2)	0.20	8385393
Nitrite (N)	mg/L	<0.20 (2)	8385399	<0.20 (2)	0.20	8385394	<0.20 (2)	0.20	8385394
Total Phosphorus (P)	mg/L	0.130	8387547	0.424	0.0020	8387547	0.328	0.0020	8387547
Physical Properties									
Conductivity	uS/cm	249	8385004	215	1.0	8384997	275	1.0	8385004
pH	pH	8.17	8385003	7.98		8384996	8.01		8385003
Physical Properties									
Total Suspended Solids	mg/L	<4.0	8385373	<4.0	4.0	8385373	35.5 (2)	8.0	8385373
Total Dissolved Solids	mg/L	156	8386251	126	10	8386251	162	10	8386251
Turbidity	NTU	6.66	8384575	3.52	0.10	8384575	175	0.10	8384575

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) RDL raised due to sample matrix interference.

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Maxxam Job #: B674769
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2881		PK2882		PK2883		PK2884		
Sampling Date		2016/08/29 14:10		2016/08/28 10:50		2016/08/28 10:26		2016/08/28 16:40		
COC Number		08426944		08426944		08426944		08426944		
	UNITS	MW05-2B	QC Batch	MW05-3A	QC Batch	MW05-3B	QC Batch	MW05-4A	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.260	8384694	0.780	8384694	0.120	8384699	1.00	0.010	8384699
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8383493	<0.20	8383493	0.23	8383493	<0.20	0.20	8383493
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	201	8383209	229	8383209	181	8383209	172	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	8387153	<0.50	8386755	<0.50	8387153	<0.50	0.50	8387153
Alkalinity (Total as CaCO3)	mg/L	177	8385000	178	8385000	96.0	8385000	115	0.50	8385000
Acidity (pH 8.3)	mg/L	<0.50	8387153	<0.50	8386755	5.06	8387153	<0.50	0.50	8387153
Alkalinity (PP as CaCO3)	mg/L	1.74	8385000	<0.50	8385000	<0.50	8385000	<0.50	0.50	8385000
Bicarbonate (HCO3)	mg/L	211	8385000	217	8385000	117	8385000	140	0.50	8385000
Carbonate (CO3)	mg/L	2.09	8385000	<0.50	8385000	<0.50	8385000	<0.50	0.50	8385000
Hydroxide (OH)	mg/L	<0.50	8385000	<0.50	8385000	<0.50	8385000	<0.50	0.50	8385000
Anions										
Orthophosphate (P)	mg/L	0.0072	8384846	<0.0010 (1)	8384846	0.0053 (1)	8384846	0.0021 (1)	0.0010	8384846
Dissolved Sulphate (SO4)	mg/L	29	8386582	47	8386582	90	8386582	52	1.0	8386582
Dissolved Chloride (Cl)	mg/L	<1.0	8386580	<1.0	8386580	2.5	8386580	<1.0	1.0	8386580
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0142 (2)	8388833	0.0189 (2)	8388833	0.0028 (2)	8388833	0.0062 (2)	0.0020	8388833
Total Ammonia (N)	mg/L	0.081	8387302	0.089	8387301	0.12	8387302	0.10	0.0050	8387301
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8385397	<0.20 (4)	8385393	0.23 (4)	8385397	<0.20 (4)	0.20	8385397
Nitrite (N)	mg/L	<0.20 (3)	8385399	<0.20 (4)	8385394	<0.20 (4)	8385399	<0.20 (4)	0.20	8385399
Total Phosphorus (P)	mg/L	0.0119	8393935	0.0200	8387547	0.0024	8387547	0.0056	0.0020	8387547
Physical Properties										
Conductivity	uS/cm	383	8385004	436	8385004	384	8385004	333	1.0	8385004
pH	pH	8.33	8385003	8.22	8385003	7.69	8385003	8.19		8385003
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8385373	7.0	8385373	<4.0	8385373	<4.0	4.0	8385373

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) Sample analysed past recommended hold time.

(3) RDL raised due to sample matrix interference.

(4) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2881		PK2882		PK2883		PK2884		
Sampling Date		2016/08/29 14:10		2016/08/28 10:50		2016/08/28 10:26		2016/08/28 16:40		
COC Number		08426944		08426944		08426944		08426944		
	UNITS	**MW05-2B**	**QC Batch**	**MW05-3A**	**QC Batch**	**MW05-3B**	**QC Batch**	**MW05-4A**	**RDL**	**QC Batch**
Total Dissolved Solids	mg/L	222	8386251	264	8386251	266	8386251	210	10	8386251
Turbidity	NTU	2.91	8384575	50.9 (1)	8384575	0.10 (1)	8384575	9.47 (1)	0.10	8384575

RDL = Reportable Detection Limit

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B674769
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2885		PK2886		PK2887			PK2888		
Sampling Date		2016/08/28 16:02		2016/08/28 08:56		2016/08/28 09:20			2016/08/29 10:55		
COC Number		08426944		08426944		08426944			08426944		
	UNITS	MW05-4B	QC Batch	MW05-5A	QC Batch	MW05-5B	RDL	QC Batch	MW05-6A	RDL	QC Batch
Misc. Inorganics											
Fluoride (F)	mg/L	0.400	8384699	2.20	8384699	0.210	0.010	8384699	0.130	0.010	8384699
Calculated Parameters											
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8383493	<0.20	8383493	<0.20	0.20	8383493	<0.20	0.20	8383493
Misc. Inorganics											
Dissolved Hardness (CaCO3)	mg/L	112	8383209	271	8383209	158	0.50	8383209	69.8	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	8387153	<0.50	8386755	<0.50	0.50	8386755	<0.50	0.50	8386755
Alkalinity (Total as CaCO3)	mg/L	87.6	8385000	241	8385000	114	0.50	8384993	59.6	0.50	8385000
Acidity (pH 8.3)	mg/L	1.59	8387153	<0.50	8386755	<0.50	0.50	8386755	<0.50	0.50	8386755
Alkalinity (PP as CaCO3)	mg/L	<0.50	8385000	1.64	8385000	<0.50	0.50	8384993	<0.50	0.50	8385000
Bicarbonate (HCO3)	mg/L	107	8385000	290	8385000	140	0.50	8384993	72.7	0.50	8385000
Carbonate (CO3)	mg/L	<0.50	8385000	1.97	8385000	<0.50	0.50	8384993	<0.50	0.50	8385000
Hydroxide (OH)	mg/L	<0.50	8385000	<0.50	8385000	<0.50	0.50	8384993	<0.50	0.50	8385000
Anions											
Orthophosphate (P)	mg/L	0.0016 (1)	8384846	0.0041 (1)	8384846	<0.0010 (1)	0.0010	8384843	0.65 (2)	0.010	8384846
Dissolved Sulphate (SO4)	mg/L	38	8386582	38	8386582	52	1.0	8386582	18	1.0	8386582
Dissolved Chloride (Cl)	mg/L	<1.0	8386580	<1.0	8386580	<1.0	1.0	8386580	<1.0	1.0	8386580
Nutrients											
Dissolved Phosphorus (P)	mg/L	0.0084 (3)	8388833	0.0127 (3)	8388833	0.0021 (3)	0.0020	8388838	0.698 (4)	0.020	8388833
Total Ammonia (N)	mg/L	0.037	8387301	0.092	8387301	0.067	0.0050	8387301	0.070	0.0050	8387300
Nitrate plus Nitrite (N)	mg/L	<0.20 (5)	8385397	<0.20 (5)	8385397	<0.20 (5)	0.20	8385393	<0.20 (6)	0.20	8385397
Nitrite (N)	mg/L	<0.20 (5)	8385399	<0.20 (5)	8385399	<0.20 (5)	0.20	8385394	<0.20 (6)	0.20	8385399
Total Phosphorus (P)	mg/L	0.0148	8393935	0.0121	8387547	0.0022	0.0020	8387546	0.611 (2)	0.020	8387546
Physical Properties											
Conductivity	uS/cm	248	8385004	500	8385004	309	1.0	8384997	156	1.0	8385004
pH	pH	7.79	8385003	8.31	8385003	8.04		8384996	7.89		8385003

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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

(3) Sample analysed past recommended hold time.

(4) Detection limits raised due to dilution to bring analyte within the calibrated range.Sample analysed past recommended hold time.

(5) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(6) RDL raised due to sample matrix interference.

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Maxxam Job #: B674769
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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2885		PK2886		PK2887			PK2888		
Sampling Date		2016/08/28 16:02		2016/08/28 08:56		2016/08/28 09:20			2016/08/29 10:55		
COC Number		08426944		08426944		08426944			08426944		
	UNITS	MW05-4B	QC Batch	MW05-5A	QC Batch	MW05-5B	RDL	QC Batch	MW05-6A	RDL	QC Batch
Physical Properties											
Total Suspended Solids	mg/L	<4.0	8385374	<4.0	8385374	<4.0	4.0	8385374	<4.0	4.0	8385374
Total Dissolved Solids	mg/L	138 (1)	8393371	286	8386251	190	10	8386251	92 (1)	10	8393371
Turbidity	NTU	7.70 (2)	8384575	11.4 (2)	8384575	1.23 (2)	0.10	8384575	4.95	0.10	8384575

RDL = Reportable Detection Limit

(1) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

(2) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2889			PK2890			PK2891		
Sampling Date		2016/08/29 10:45			2016/08/29 13:25			2016/08/28 15:47		
COC Number		08426944			08426944			08426944		
	UNITS	MW05-6B	RDL	QC Batch	MW05-7B	RDL	QC Batch	MW06-8S	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.033	0.010	8384699	<0.010	0.010	8384699	0.270	0.010	8384699
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	0.31	0.20	8383493	<0.20	0.20	8383493	<0.20	0.20	8383493
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	84.1	0.50	8383209	1280	0.50	8383209	94.3	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	0.50	8386755	<0.50	0.50	8386755	<0.50	0.50	8386755
Alkalinity (Total as CaCO3)	mg/L	82.8	0.50	8385000	1040	0.50	8384993	66.8	0.50	8384993
Acidity (pH 8.3)	mg/L	0.99	0.50	8386755	<0.50	0.50	8386755	4.71	0.50	8386755
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8385000	1020	0.50	8384993	<0.50	0.50	8384993
Bicarbonate (HCO3)	mg/L	101	0.50	8385000	<0.50	0.50	8384993	81.4	0.50	8384993
Carbonate (CO3)	mg/L	<0.50	0.50	8385000	19.7	0.50	8384993	<0.50	0.50	8384993
Hydroxide (OH)	mg/L	<0.50	0.50	8385000	343	0.50	8384993	<0.50	0.50	8384993
Anions										
Orthophosphate (P)	mg/L	0.0027	0.0010	8384843	<0.0010	0.0010	8384843	0.23 (1)	0.0010	8384843
Dissolved Sulphate (SO4)	mg/L	8.7	1.0	8386582	<1.0	1.0	8386582	34	1.0	8386582
Dissolved Chloride (Cl)	mg/L	<1.0	1.0	8386580	<1.0	1.0	8386580	<1.0	1.0	8386580
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0060 (2)	0.0020	8388833	<0.0020 (2)	0.0020	8388838	0.245 (2)	0.0020	8388838
Total Ammonia (N)	mg/L	0.013	0.0050	8387300	0.12	0.0050	8387301	0.39	0.0050	8387301
Nitrate plus Nitrite (N)	mg/L	0.31 (3)	0.20	8385393	<0.20 (3)	0.20	8385393	<0.20 (4)	0.20	8385393
Nitrite (N)	mg/L	<0.20 (3)	0.20	8385394	<0.20 (3)	0.20	8385394	<0.20 (4)	0.20	8385394
Total Phosphorus (P)	mg/L	0.0041	0.0020	8387546	<0.0020	0.0020	8387546	0.215	0.0020	8387547
Physical Properties										
Conductivity	uS/cm	179	1.0	8385004	4450	1.0	8384997	209	1.0	8384997
pH	pH	8.01		8385003	12.3		8384996	7.49		8384996
Physical Properties										
Total Suspended Solids	mg/L	<4.0	4.0	8385374	<4.0	4.0	8385374	<4.0	4.0	8385374

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) Sample analysed past recommended hold time.

(3) RDL raised due to sample matrix interference.

(4) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2889			PK2890			PK2891		
Sampling Date		2016/08/29 10:45			2016/08/29 13:25			2016/08/28 15:47		
COC Number		08426944			08426944			08426944		
	UNITS	**MW05-6B**	**RDL**	**QC Batch**	**MW05-7B**	**RDL**	**QC Batch**	**MW06-8S**	**RDL**	**QC Batch**
Total Dissolved Solids	mg/L	106	10	8386251	950 (1)	50	8393371	106 (2)	10	8393371
Turbidity	NTU	<0.10	0.10	8384576	0.11	0.10	8384576	5.56 (3)	0.10	8384576

RDL = Reportable Detection Limit

(1) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time. RDL raised due to high concentration of solids in the sample.

(2) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

(3) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2892		PK2893		PK2894		PK2895		
Sampling Date		2016/08/28 15:35		2016/08/28 11:00		2016/08/28 14:23		2016/08/28 14:46		
COC Number		08426944		08426944		08426944		08426944		
	UNITS	MW06-8M	QC Batch	MW06-8D	QC Batch	MW06-9S	QC Batch	MW06-9M	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	1.30	8384699	0.910	8384699	0.820	8384699	0.960	0.010	8384699
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8383493	<0.20	8383493	<0.20	8383493	<0.20	0.20	8383493
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	223	8383209	255	8383209	124	8383209	199	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	8386755	<0.50	8387153	<0.50	8387153	<0.50	0.50	8386755
Alkalinity (Total as CaCO3)	mg/L	185	8385000	215	8385000	110	8385000	166	0.50	8384993
Acidity (pH 8.3)	mg/L	<0.50	8386755	<0.50	8387153	<0.50	8387153	<0.50	0.50	8386755
Alkalinity (PP as CaCO3)	mg/L	0.59	8385000	2.36	8385000	<0.50	8385000	<0.50	0.50	8384993
Bicarbonate (HCO3)	mg/L	224	8385000	256	8385000	134	8385000	202	0.50	8384993
Carbonate (CO3)	mg/L	0.71	8385000	2.83	8385000	<0.50	8385000	<0.50	0.50	8384993
Hydroxide (OH)	mg/L	<0.50	8385000	<0.50	8385000	<0.50	8385000	<0.50	0.50	8384993
Anions										
Orthophosphate (P)	mg/L	0.0075 (1)	8384843	0.0020 (1)	8384846	0.14 (1)	8384846	0.0070 (1)	0.0010	8384843
Dissolved Sulphate (SO4)	mg/L	38	8386582	30	8386582	29	8386577	34	1.0	8386577
Dissolved Chloride (Cl)	mg/L	<1.0	8386580	<1.0	8386580	<1.0	8386571	<1.0	1.0	8386571
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0133 (2)	8388833	0.0041 (2)	8388833	0.173 (2)	8388833	0.0113 (2)	0.0020	8388838
Total Ammonia (N)	mg/L	0.18	8387301	0.29	8387300	0.053	8387301	0.10	0.0050	8387301
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8385393	<0.20 (3)	8385397	<0.20 (3)	8385397	<0.20 (3)	0.20	8385393
Nitrite (N)	mg/L	<0.20 (3)	8385394	<0.20 (3)	8385399	<0.20 (3)	8385399	<0.20 (3)	0.20	8385394
Total Phosphorus (P)	mg/L	0.0110	8387546	0.0038	8387546	0.169	8387546	0.0139	0.0020	8393935
Physical Properties										
Conductivity	uS/cm	421	8385004	457	8385004	250	8385004	378	1.0	8384997
pH	pH	8.30	8385003	8.34	8385003	8.13	8385003	8.28		8384996
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8385374	<4.0	8385374	<4.0	8385374	<4.0	4.0	8385374
Total Dissolved Solids	mg/L	262	8386251	266	8386251	152	8386251	220	10	8386251

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) Sample analysed past recommended hold time.

(3) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2892		PK2893		PK2894		PK2895		
Sampling Date		2016/08/28 15:35		2016/08/28 11:00		2016/08/28 14:23		2016/08/28 14:46		
COC Number		08426944		08426944		08426944		08426944		
	UNITS	**MW06-8M**	**QC Batch**	**MW06-8D**	**QC Batch**	**MW06-9S**	**QC Batch**	**MW06-9M**	**RDL**	**QC Batch**
Turbidity	NTU	3.48 (1)	8384576	7.42 (1)	8384576	1.17 (1)	8384576	5.52 (1)	0.10	8384576

RDL = Reportable Detection Limit

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B674769
Report Date: 2016/09/28

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2896		PK2897		PK2898		PK2899		
Sampling Date		2016/08/29 11:10		2016/08/29 11:17		2016/08/29 13:42		2016/08/28 10:05		
COC Number		08426944		08426944		08426944		08426944		
	UNITS	MW06-10S	QC Batch	MW06-10M	QC Batch	MW06-10D	QC Batch	MW06-11S	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.220	8384699	0.730	8384699	1.00	8384699	2.70	0.010	8384699
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	8383493	<0.20	8383493	<0.20	8383493	<0.20	0.20	8383493
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	148	8383209	285	8383209	263	8383209	240	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	8387153	<0.50	8386755	<0.50	8387153	<0.50	0.50	8386584
Alkalinity (Total as CaCO3)	mg/L	118	8385000	195	8384993	242	8385000	203	0.50	8384993
Acidity (pH 8.3)	mg/L	<0.50	8387153	<0.50	8386755	<0.50	8387153	<0.50	0.50	8386584
Alkalinity (PP as CaCO3)	mg/L	<0.50	8385000	<0.50	8384993	3.66	8385000	<0.50	0.50	8384993
Bicarbonate (HCO3)	mg/L	144	8385000	238	8384993	286	8385000	247	0.50	8384993
Carbonate (CO3)	mg/L	<0.50	8385000	<0.50	8384993	4.39	8385000	<0.50	0.50	8384993
Hydroxide (OH)	mg/L	<0.50	8385000	<0.50	8384993	<0.50	8385000	<0.50	0.50	8384993
Anions										
Orthophosphate (P)	mg/L	0.0099	8384846	<0.0010	8384843	0.0037	8384846	0.012 (1)	0.0010	8384843
Dissolved Sulphate (SO4)	mg/L	31	8386577	65	8386577	28	8386577	36	1.0	8386577
Dissolved Chloride (Cl)	mg/L	<1.0	8386571	<1.0	8386571	<1.0	8386571	<1.0	1.0	8386571
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0154 (2)	8388833	0.0086 (2)	8388838	0.0058 (2)	8388833	0.0183 (2)	0.0020	8388838
Total Ammonia (N)	mg/L	0.042	8387301	0.65	8387301	0.12	8387301	0.33	0.0050	8387301
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8385397	<0.20 (3)	8385393	<0.20 (3)	8385397	<0.20 (4)	0.20	8385393
Nitrite (N)	mg/L	<0.20 (3)	8385399	<0.20 (3)	8385394	<0.20 (3)	8385399	<0.20 (4)	0.20	8385394
Total Phosphorus (P)	mg/L	0.0138	8387546	0.0162	8393935	0.0115	8387546	0.0199	0.0020	8387547
Physical Properties										
Conductivity	uS/cm	285	8385004	488	8384997	491	8385004	456	1.0	8384997
pH	pH	8.22	8385003	8.21	8384996	8.37	8385003	8.26		8384996
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8385374	8.0	8385374	<4.0	8385374	<4.0	4.0	8385374

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

(2) Sample analysed past recommended hold time.

(3) RDL raised due to sample matrix interference.

(4) RDL raised due to sample matrix interference. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2896		PK2897		PK2898		PK2899		
Sampling Date		2016/08/29 11:10		2016/08/29 11:17		2016/08/29 13:42		2016/08/28 10:05		
COC Number		08426944		08426944		08426944		08426944		
	UNITS	**MW06-10S**	**QC Batch**	**MW06-10M**	**QC Batch**	**MW06-10D**	**QC Batch**	**MW06-11S**	**RDL**	**QC Batch**
Total Dissolved Solids	mg/L	180	8386251	298	8386251	274	8387225	264	10	8384622
Turbidity	NTU	2.21	8384576	58.8	8384576	19.2	8384576	9.16 (1)	0.10	8384576

RDL = Reportable Detection Limit

(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PK2900			PK2901		
Sampling Date		2016/08/29 08:50			2016/08/29 13:06		
COC Number		08426944			08426944		
	UNITS	MW06-12S	RDL	QC Batch	MW06-13	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	0.950	0.010	8384699	0.039	0.010	8384699
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.20	8383918	<0.20	0.20	8383918
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	419	0.50	8383209	170	0.50	8383209
Acidity (pH 4.5)	mg/L	<0.50	0.50	8386584	<0.50	0.50	8386755
Alkalinity (Total as CaCO3)	mg/L	136	0.50	8384993	127	0.50	8385000
Acidity (pH 8.3)	mg/L	<0.50	0.50	8386584	2.44	0.50	8386755
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8384993	<0.50	0.50	8385000
Bicarbonate (HCO3)	mg/L	166	0.50	8384993	155	0.50	8385000
Carbonate (CO3)	mg/L	<0.50	0.50	8384993	<0.50	0.50	8385000
Hydroxide (OH)	mg/L	<0.50	0.50	8384993	<0.50	0.50	8385000
Anions							
Orthophosphate (P)	mg/L	<0.0010	0.0010	8384843	<0.0010	0.0010	8384846
Dissolved Sulphate (SO4)	mg/L	250 (1)	5.0	8386577	53	1.0	8386577
Dissolved Chloride (Cl)	mg/L	<1.0	1.0	8386571	1.1	1.0	8386571
Nutrients							
Dissolved Phosphorus (P)	mg/L	0.0021 (2)	0.0020	8388838	0.0120 (2)	0.0020	8393937
Total Ammonia (N)	mg/L	0.16	0.0050	8387301	0.22	0.0050	8387301
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	0.20	8385393	<0.20 (3)	0.20	8385397
Nitrite (N)	mg/L	<0.20 (3)	0.20	8385394	<0.20 (3)	0.20	8385399
Total Phosphorus (P)	mg/L	<0.0020	0.0020	8387547	0.0125	0.0020	8393935
Physical Properties							
Conductivity	uS/cm	783	1.0	8384997	365	1.0	8385004
pH	pH	8.12		8384996	7.85		8385003
Physical Properties							
Total Suspended Solids	mg/L	<4.0	4.0	8385374	<4.0	4.0	8385374
Total Dissolved Solids	mg/L	560	10	8384622	212	10	8387225
Turbidity	NTU	13.2	0.10	8384576	0.19	0.10	8384576

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) Sample analysed past recommended hold time.
(3) RDL raised due to sample matrix interference.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2878	PK2879		PK2880		
Sampling Date		2016/08/29 09:25	2016/08/29 09:11		2016/08/29 14:04		
COC Number		08426944	08426944		08426944		
	UNITS	MW05-1A	MW05-1B	QC Batch	MW05-2A	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	<0.010	8390652	<0.010	0.010	8390652
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00330	0.0116	8386714	0.00230	0.00050	8386700
Dissolved Antimony (Sb)	mg/L	0.000037	0.000033	8386714	<0.000020	0.000020	8386700
Dissolved Arsenic (As)	mg/L	0.00661	0.00504	8386714	0.0463	0.000020	8386700
Dissolved Barium (Ba)	mg/L	0.158	0.241	8386714	0.186	0.000020	8386700
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	8386714	<0.000010	0.000010	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	8386714	<0.0000050	0.0000050	8386700
Dissolved Boron (B)	mg/L	<0.010	<0.010	8386714	<0.010	0.010	8386700
Dissolved Cadmium (Cd)	mg/L	<0.0000050	<0.0000050	8386714	<0.0000050	0.0000050	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00026	8386714	<0.00010	0.00010	8386700
Dissolved Cobalt (Co)	mg/L	0.0000330	0.0000260	8386714	0.0000640	0.0000050	8386700
Dissolved Copper (Cu)	mg/L	<0.000050	0.000109	8386714	0.000096	0.000050	8386700
Dissolved Iron (Fe)	mg/L	1.37	2.41	8386714	17.9	0.0010	8386700
Dissolved Lead (Pb)	mg/L	0.0000240	0.0000120	8386714	0.0000390	0.0000050	8386700
Dissolved Lithium (Li)	mg/L	0.00058	<0.00050	8386714	<0.00050	0.00050	8386700
Dissolved Manganese (Mn)	mg/L	0.246	0.290	8386714	0.959	0.000050	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00579	0.00215	8386714	0.00864	0.000050	8386700
Dissolved Nickel (Ni)	mg/L	0.000168	0.000515	8386714	0.000068	0.000020	8386700
Dissolved Phosphorus (P)	mg/L	0.125	0.395	8386714	0.287	0.0020	8386700
Dissolved Selenium (Se)	mg/L	<0.000040	0.000074	8386714	<0.000040	0.000040	8386700
Dissolved Silicon (Si)	mg/L	3.74	5.03	8386714	5.11	0.050	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	8386714	<0.0000050 (1)	0.0000050	8386700
Dissolved Strontium (Sr)	mg/L	0.151	0.121	8386714	0.0955	0.000050	8386700
Dissolved Thallium (Tl)	mg/L	<0.0000020	<0.0000020	8386714	<0.0000020 (1)	0.0000020	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	8386714	<0.00020	0.00020	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00083	8386714	<0.00050	0.00050	8386700
Dissolved Uranium (U)	mg/L	0.0000520	0.0000260	8386714	0.000200	0.0000020	8386700
Dissolved Vanadium (V)	mg/L	0.00032	0.00097	8386714	0.00029	0.00020	8386700
Dissolved Zinc (Zn)	mg/L	0.00029	0.00092	8386714	0.00045	0.00010	8386700
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00018	8386714	<0.00010	0.00010	8386700
Dissolved Calcium (Ca)	mg/L	42.0	37.4	8383437	47.7	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	4.77	3.49	8383437	7.28	0.050	8383437

RDL = Reportable Detection Limit

(1) Matrix Spike outside acceptance criteria (10% of analytes failure allowed).

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Maxxam Job #: B674769
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2878	PK2879		PK2880		
Sampling Date		2016/08/29 09:25	2016/08/29 09:11		2016/08/29 14:04		
COC Number		08426944	08426944		08426944		
	UNITS	**MW05-1A**	**MW05-1B**	**QC Batch**	**MW05-2A**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	1.18	1.25	8383437	0.324	0.050	8383437
Dissolved Sodium (Na)	mg/L	1.50	1.25	8383437	1.04	0.050	8383437
Dissolved Sulphur (S)	mg/L	8.0	3.3	8383437	<3.0	3.0	8383437
RDL = Reportable Detection Limit							

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2881		PK2882	PK2883		
Sampling Date		2016/08/29 14:10		2016/08/28 10:50	2016/08/28 10:26		
COC Number		08426944		08426944	08426944		
	UNITS	MW05-2B	QC Batch	MW05-3A	MW05-3B	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	8390652	<0.010	0.021	0.010	8390652
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.0328	8386700	0.00195	0.00290	0.00050	8386700
Dissolved Antimony (Sb)	mg/L	0.000040	8386700	0.000243	0.000121	0.000020	8386700
Dissolved Arsenic (As)	mg/L	0.000455	8386700	0.00138	0.000107	0.000020	8386700
Dissolved Barium (Ba)	mg/L	0.0477	8386700	0.0540	0.0605	0.000020	8386700
Dissolved Beryllium (Be)	mg/L	0.000010	8386700	<0.000010	<0.000010	0.000010	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	8386700	<0.0000050	<0.0000050	0.0000050	8386700
Dissolved Boron (B)	mg/L	<0.010	8386700	<0.010	<0.010	0.010	8386700
Dissolved Cadmium (Cd)	mg/L	<0.0000050	8386700	0.000345	0.0267	0.0000050	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	8386700	<0.00010	<0.00010	0.00010	8386700
Dissolved Cobalt (Co)	mg/L	0.0000270	8386700	0.000258	0.0000310	0.0000050	8386700
Dissolved Copper (Cu)	mg/L	0.000170	8386700	0.000097	0.00308	0.000050	8386700
Dissolved Iron (Fe)	mg/L	0.476	8386700	3.88	0.0155	0.0010	8386700
Dissolved Lead (Pb)	mg/L	0.000114	8386700	0.000280	0.000378	0.0000050	8386700
Dissolved Lithium (Li)	mg/L	0.00231	8386700	0.00087	0.00144	0.00050	8386700
Dissolved Manganese (Mn)	mg/L	0.214	8386700	0.253	0.00516	0.000050	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00141	8386700	0.00231	0.000577	0.000050	8386700
Dissolved Nickel (Ni)	mg/L	0.000138	8386700	0.00287	0.00624	0.000020	8386700
Dissolved Phosphorus (P)	mg/L	0.0133	8392434	0.0236	0.0043	0.0020	8386700
Dissolved Selenium (Se)	mg/L	0.000077	8386700	0.000069	0.00461	0.000040	8386700
Dissolved Silicon (Si)	mg/L	3.99	8386700	4.15	4.92	0.050	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	8386700	<0.0000050	<0.0000050	0.0000050	8386700
Dissolved Strontium (Sr)	mg/L	0.165	8386700	0.208	0.193	0.000050	8386700
Dissolved Thallium (Tl)	mg/L	<0.0000020	8386700	0.0000040	0.0000070	0.0000020	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	8386700	<0.00020	<0.00020	0.00020	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	8386700	<0.00050	<0.00050	0.00050	8386700
Dissolved Uranium (U)	mg/L	0.00741	8386700	0.0173	0.00200	0.0000020	8386700
Dissolved Vanadium (V)	mg/L	<0.00020	8386700	<0.00020	<0.00020	0.00020	8386700
Dissolved Zinc (Zn)	mg/L	0.00100	8386700	0.383	2.57	0.00010	8386700
Dissolved Zirconium (Zr)	mg/L	0.00019	8386700	<0.00010	<0.00010	0.00010	8386700
Dissolved Calcium (Ca)	mg/L	53.3	8383437	76.8	60.9	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	16.5	8383437	8.97	7.04	0.050	8383437
Dissolved Potassium (K)	mg/L	1.67	8383437	1.46	1.29	0.050	8383437
RDL = Reportable Detection Limit							

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2881		PK2882	PK2883		
Sampling Date		2016/08/29 14:10		2016/08/28 10:50	2016/08/28 10:26		
COC Number		08426944		08426944	08426944		
	UNITS	**MW05-2B**	**QC Batch**	**MW05-3A**	**MW05-3B**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	0.620	8383437	2.06	6.91	0.050	8383437
Dissolved Sulphur (S)	mg/L	10.2	8383437	15.2	28.2	3.0	8383437
RDL = Reportable Detection Limit							

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2884		PK2885		PK2886		
Sampling Date		2016/08/28 16:40		2016/08/28 16:02		2016/08/28 08:56		
COC Number		08426944		08426944		08426944		
	UNITS	MW05-4A	QC Batch	MW05-4B	QC Batch	MW05-5A	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	8390650	<0.010	8390652	<0.010	0.010	8390652
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00245	8386700	0.175	8386700	0.00408	0.00050	8386700
Dissolved Antimony (Sb)	mg/L	0.000036	8386700	0.000265	8386700	0.00428	0.000020	8386700
Dissolved Arsenic (As)	mg/L	0.00376	8386700	0.00660	8386700	0.00540	0.000020	8386700
Dissolved Barium (Ba)	mg/L	0.0516	8386700	0.0998	8386700	0.0456	0.000020	8386700
Dissolved Beryllium (Be)	mg/L	<0.000010	8386700	0.000015	8386700	0.000030	0.000010	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	8386700	0.0000460	8386700	<0.0000050	0.0000050	8386700
Dissolved Boron (B)	mg/L	<0.010	8386700	<0.010	8386700	<0.010	0.010	8386700
Dissolved Cadmium (Cd)	mg/L	0.0000110	8386700	0.00779	8386700	0.0000160	0.0000050	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	8386700	0.00032	8386700	<0.00010	0.00010	8386700
Dissolved Cobalt (Co)	mg/L	0.0000200	8386700	0.00437	8386700	0.000157	0.0000050	8386700
Dissolved Copper (Cu)	mg/L	0.000107	8386700	0.00370	8386700	0.000306	0.000050	8386700
Dissolved Iron (Fe)	mg/L	1.27	8386700	2.34	8386700	1.21	0.0010	8386700
Dissolved Lead (Pb)	mg/L	0.000156	8386700	0.00161	8386700	0.000243	0.0000050	8386700
Dissolved Lithium (Li)	mg/L	0.00083	8386700	0.00099	8386700	0.00317	0.00050	8386700
Dissolved Manganese (Mn)	mg/L	0.296	8386700	3.19	8386700	0.0702	0.000050	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00419	8386700	0.00107	8386700	0.00712	0.000050	8386700
Dissolved Nickel (Ni)	mg/L	0.000116	8386700	0.00688	8386700	0.00148	0.000020	8386700
Dissolved Phosphorus (P)	mg/L	0.0077	8386700	0.0181	8392434	0.0134	0.0020	8386700
Dissolved Selenium (Se)	mg/L	<0.000040	8386700	0.000053	8386700	<0.000040	0.000040	8386700
Dissolved Silicon (Si)	mg/L	3.34	8386700	7.32	8386700	3.84	0.050	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	8386700	0.0000100	8386700	<0.0000050	0.0000050	8386700
Dissolved Strontium (Sr)	mg/L	0.195	8386700	0.171	8386700	0.142	0.000050	8386700
Dissolved Thallium (Tl)	mg/L	<0.0000020	8386700	0.0000500	8386700	0.0000060	0.0000020	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	8386700	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	8386700	0.0117	8386700	<0.00050	0.00050	8386700
Dissolved Uranium (U)	mg/L	0.000980	8386700	0.000422	8386700	0.0268	0.0000020	8386700
Dissolved Vanadium (V)	mg/L	<0.00020	8386700	0.00043	8386700	<0.00020	0.00020	8386700
Dissolved Zinc (Zn)	mg/L	0.00174	8386700	0.236	8386700	0.0393	0.00010	8386700
Dissolved Zirconium (Zr)	mg/L	<0.00010	8386700	0.00014	8386700	0.00067	0.00010	8386700
Dissolved Calcium (Ca)	mg/L	62.5	8383437	39.7	8383437	74.0	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	3.84	8383437	3.10	8383437	20.9	0.050	8383437
Dissolved Potassium (K)	mg/L	1.91	8383437	1.91	8383437	1.44	0.050	8383437

RDL = Reportable Detection Limit

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Maxxam Job #: B674769
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2884		PK2885		PK2886		
Sampling Date		2016/08/28 16:40		2016/08/28 16:02		2016/08/28 08:56		
COC Number		08426944		08426944		08426944		
	UNITS	**MW05-4A**	**QC Batch**	**MW05-4B**	**QC Batch**	**MW05-5A**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	1.08	8383437	1.05	8383437	0.260	0.050	8383437
Dissolved Sulphur (S)	mg/L	17.0	8383437	12.1	8383437	11.3	3.0	8383437
RDL = Reportable Detection Limit								

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2887	PK2888	PK2889		PK2890		
Sampling Date		2016/08/28 09:20	2016/08/29 10:55	2016/08/29 10:45		2016/08/29 13:25		
COC Number		08426944	08426944	08426944		08426944		
	UNITS	MW05-5B	MW05-6A	MW05-6B	RDL	MW05-7B	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	0.010	0.016	0.010	8390652
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00147	0.00714	0.00183	0.00050	0.0872	0.0025	8386700
Dissolved Antimony (Sb)	mg/L	0.000494	0.00109	0.000028	0.000020	<0.00010	0.00010	8386700
Dissolved Arsenic (As)	mg/L	0.00202	0.00522	0.000063	0.000020	<0.00010	0.00010	8386700
Dissolved Barium (Ba)	mg/L	0.0410	0.0640	0.164	0.000020	0.0365	0.00010	8386700
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	<0.000050	0.000050	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	8386700
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	0.010	<0.050	0.050	8386700
Dissolved Cadmium (Cd)	mg/L	0.0000380	0.0000190	<0.0000050	0.0000050	<0.000025	0.000025	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00031	0.00093	0.00010	0.116	0.00050	8386700
Dissolved Cobalt (Co)	mg/L	0.00136	0.000263	0.0000090	0.0000050	0.000055	0.000025	8386700
Dissolved Copper (Cu)	mg/L	0.000242	0.000415	0.000291	0.000050	0.00159	0.00025	8386700
Dissolved Iron (Fe)	mg/L	0.198	0.857	0.0031	0.0010	0.0057	0.0050	8386700
Dissolved Lead (Pb)	mg/L	0.0000440	0.000182	0.0000090	0.0000050	0.00232	0.000025	8386700
Dissolved Lithium (Li)	mg/L	0.00149	<0.00050	<0.00050	0.00050	0.0262	0.0025	8386700
Dissolved Manganese (Mn)	mg/L	0.821	0.100	0.000198	0.000050	0.00073	0.00025	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00141	0.00135	0.000216	0.000050	0.0181	0.00025	8386700
Dissolved Nickel (Ni)	mg/L	0.0135	0.00116	0.000132	0.000020	0.00047	0.00010	8386700
Dissolved Phosphorus (P)	mg/L	0.0029	0.617	0.0082	0.0020	<0.010	0.010	8386700
Dissolved Selenium (Se)	mg/L	0.000123	0.000151	0.000681	0.000040	<0.00020	0.00020	8386700
Dissolved Silicon (Si)	mg/L	3.77	5.77	4.10	0.050	<0.25	0.25	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	8386700
Dissolved Strontium (Sr)	mg/L	0.122	0.0283	0.0454	0.000050	0.0448	0.00025	8386700
Dissolved Thallium (Tl)	mg/L	<0.0000020	<0.0000020	<0.0000020	0.0000020	<0.000010	0.000010	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	<0.0025	0.0025	8386700
Dissolved Uranium (U)	mg/L	0.00321	0.000123	0.000280	0.0000020	0.000012	0.000010	8386700
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	8386700
Dissolved Zinc (Zn)	mg/L	0.0950	0.00885	0.00063	0.00010	0.00415	0.00050	8386700
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	<0.00050	0.00050	8386700
Dissolved Calcium (Ca)	mg/L	51.4	23.5	29.6	0.050	512	0.25	8383437
Dissolved Magnesium (Mg)	mg/L	7.11	2.69	2.47	0.050	<0.25	0.25	8383437
Dissolved Potassium (K)	mg/L	0.604	1.19	0.688	0.050	1.18	0.25	8383437

RDL = Reportable Detection Limit

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Maxxam Job #: B674769
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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2887	PK2888	PK2889		PK2890		
Sampling Date		2016/08/28 09:20	2016/08/29 10:55	2016/08/29 10:45		2016/08/29 13:25		
COC Number		08426944	08426944	08426944		08426944		
	UNITS	**MW05-5B**	**MW05-6A**	**MW05-6B**	**RDL**	**MW05-7B**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	0.827	1.62	1.16	0.050	2.54	0.25	8383437
Dissolved Sulphur (S)	mg/L	13.2	4.5	<3.0	3.0	<15	15	8383437
RDL = Reportable Detection Limit								

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Maxxam Job #: B674769
Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2891	PK2892		PK2893		
Sampling Date		2016/08/28 15:47	2016/08/28 15:35		2016/08/28 11:00		
COC Number		08426944	08426944		08426944		
	UNITS	MW06-8S	MW06-8M	QC Batch	MW06-8D	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	<0.010	8390652	<0.010	0.010	8390650
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00330	0.00606	8386700	0.00154	0.00050	8386700
Dissolved Antimony (Sb)	mg/L	0.00446	0.00221	8386700	0.000280	0.000020	8386700
Dissolved Arsenic (As)	mg/L	0.00112	0.0149	8386700	0.00479	0.000020	8386700
Dissolved Barium (Ba)	mg/L	0.0243	0.0669	8386700	0.0455	0.000020	8386700
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	8386700	<0.000010	0.000010	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Boron (B)	mg/L	<0.010	<0.010	8386700	<0.010	0.010	8386700
Dissolved Cadmium (Cd)	mg/L	0.000160	0.0000100	8386700	0.0000340	0.0000050	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	8386700	<0.00010	0.00010	8386700
Dissolved Cobalt (Co)	mg/L	0.00447	0.000233	8386700	0.0000320	0.0000050	8386700
Dissolved Copper (Cu)	mg/L	0.000311	0.000425	8386700	<0.000050	0.000050	8386700
Dissolved Iron (Fe)	mg/L	1.74	0.581	8386700	0.650	0.0010	8386700
Dissolved Lead (Pb)	mg/L	0.0000550	0.00101	8386700	0.0000180	0.0000050	8386700
Dissolved Lithium (Li)	mg/L	0.00131	0.00336	8386700	0.00297	0.00050	8386700
Dissolved Manganese (Mn)	mg/L	0.406	0.0412	8386700	0.00922	0.000050	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00261	0.00534	8386700	0.00132	0.000050	8386700
Dissolved Nickel (Ni)	mg/L	0.0460	0.00388	8386700	0.000333	0.000020	8386700
Dissolved Phosphorus (P)	mg/L	0.217	0.0102	8386700	0.0026	0.0020	8386700
Dissolved Selenium (Se)	mg/L	0.000046	<0.000040	8386700	<0.000040	0.000040	8386700
Dissolved Silicon (Si)	mg/L	6.14	4.29	8386700	5.01	0.050	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Strontium (Sr)	mg/L	0.0658	0.158	8386700	0.178	0.000050	8386700
Dissolved Thallium (Tl)	mg/L	0.0000040	0.0000020	8386700	<0.0000020	0.0000020	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00053	8386700	<0.00050	0.00050	8386700
Dissolved Uranium (U)	mg/L	0.000113	0.0229	8386700	0.0111	0.0000020	8386700
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Zinc (Zn)	mg/L	1.79	0.00430	8386700	0.00480	0.00010	8386700
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00011	8386700	0.00071	0.00010	8386700
Dissolved Calcium (Ca)	mg/L	31.6	52.0	8383437	61.3	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	3.72	22.7	8383437	24.7	0.050	8383437
Dissolved Potassium (K)	mg/L	0.922	1.55	8383437	1.62	0.050	8383437
RDL = Reportable Detection Limit							

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Maxxam Job #: B674769
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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2891	PK2892		PK2893		
Sampling Date		2016/08/28 15:47	2016/08/28 15:35		2016/08/28 11:00		
COC Number		08426944	08426944		08426944		
	UNITS	**MW06-8S**	**MW06-8M**	**QC Batch**	**MW06-8D**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	1.03	0.697	8383437	0.374	0.050	8383437
Dissolved Sulphur (S)	mg/L	11.4	13.4	8383437	9.3	3.0	8383437
RDL = Reportable Detection Limit							

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2894		PK2895		PK2896		
Sampling Date		2016/08/28 14:23		2016/08/28 14:46		2016/08/29 11:10		
COC Number		08426944		08426944		08426944		
	UNITS	MW06-9S	QC Batch	MW06-9M	QC Batch	MW06-10S	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	8390652	<0.010	8390652	<0.010	0.010	8390650
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00195	8386700	0.00639	8386700	0.00241	0.00050	8386700
Dissolved Antimony (Sb)	mg/L	0.000030	8386700	0.00277	8386700	0.000458	0.000020	8386700
Dissolved Arsenic (As)	mg/L	0.00530	8386700	0.00198	8386700	0.00540	0.000020	8386700
Dissolved Barium (Ba)	mg/L	0.0548	8386700	0.0588	8386700	0.0265	0.000020	8386700
Dissolved Beryllium (Be)	mg/L	<0.000010	8386700	<0.000010	8386700	<0.000010	0.000010	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	8386700	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Boron (B)	mg/L	<0.010	8386700	<0.010	8386700	<0.010	0.010	8386700
Dissolved Cadmium (Cd)	mg/L	<0.0000050	8386700	0.0000140	8386700	<0.0000050	0.0000050	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	8386700	0.00015	8386700	<0.00010	0.00010	8386700
Dissolved Cobalt (Co)	mg/L	0.000258	8386700	0.0000870	8386700	0.000104	0.0000050	8386700
Dissolved Copper (Cu)	mg/L	0.000055	8386700	0.000454	8386700	<0.000050	0.000050	8386700
Dissolved Iron (Fe)	mg/L	0.509	8386700	0.808	8386700	0.326	0.0010	8386700
Dissolved Lead (Pb)	mg/L	0.0000050	8386700	0.000297	8386700	0.0000210	0.0000050	8386700
Dissolved Lithium (Li)	mg/L	0.00094	8386700	0.00220	8386700	0.00111	0.00050	8386700
Dissolved Manganese (Mn)	mg/L	0.118	8386700	0.0163	8386700	0.118	0.000050	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00377	8386700	0.00476	8386700	0.00109	0.000050	8386700
Dissolved Nickel (Ni)	mg/L	0.00138	8386700	0.000616	8386700	0.000570	0.000020	8386700
Dissolved Phosphorus (P)	mg/L	0.163	8386700	0.0113	8392434	0.0128	0.0020	8386700
Dissolved Selenium (Se)	mg/L	<0.000040	8386700	<0.000040	8386700	<0.000040	0.000040	8386700
Dissolved Silicon (Si)	mg/L	4.55	8386700	3.60	8386700	3.55	0.050	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	8386700	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Strontium (Sr)	mg/L	0.149	8386700	0.0832	8386700	0.195	0.000050	8386700
Dissolved Thallium (Tl)	mg/L	<0.0000020	8386700	<0.0000020	8386700	<0.0000020	0.0000020	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	8386700	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	8386700	<0.00050	8386700	<0.00050	0.00050	8386700
Dissolved Uranium (U)	mg/L	0.000830	8386700	0.00371	8386700	0.00837	0.0000020	8386700
Dissolved Vanadium (V)	mg/L	<0.00020	8386700	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Zinc (Zn)	mg/L	0.00771	8386700	0.00501	8386700	0.00184	0.00010	8386700
Dissolved Zirconium (Zr)	mg/L	<0.00010	8386700	0.00017	8386700	<0.00010	0.00010	8386700
Dissolved Calcium (Ca)	mg/L	41.8	8383437	60.9	8383437	52.2	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	4.76	8383437	11.4	8383437	4.22	0.050	8383437
Dissolved Potassium (K)	mg/L	1.04	8383437	1.68	8383437	1.05	0.050	8383437
RDL = Reportable Detection Limit								

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2894		PK2895		PK2896		
Sampling Date		2016/08/28 14:23		2016/08/28 14:46		2016/08/29 11:10		
COC Number		08426944		08426944		08426944		
	UNITS	**MW06-9S**	**QC Batch**	**MW06-9M**	**QC Batch**	**MW06-10S**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	0.886	8383437	0.317	8383437	1.09	0.050	8383437
Dissolved Sulphur (S)	mg/L	9.0	8383437	10.7	8383437	9.0	3.0	8383437
RDL = Reportable Detection Limit								

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2897		PK2898		PK2899		
Sampling Date		2016/08/29 11:17		2016/08/29 13:42		2016/08/28 10:05		
COC Number		08426944		08426944		08426944		
	UNITS	MW06-10M	QC Batch	MW06-10D	QC Batch	MW06-11S	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	8390652	<0.010	8390650	<0.010	0.010	8390652
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00110	8386700	0.00412	8386700	0.00276	0.00050	8386700
Dissolved Antimony (Sb)	mg/L	<0.000020	8386700	0.000408	8386700	0.000075	0.000020	8386700
Dissolved Arsenic (As)	mg/L	0.000196	8386700	0.000792	8386700	0.00356	0.000020	8386700
Dissolved Barium (Ba)	mg/L	0.0372	8386700	0.0509	8386700	0.0468	0.000020	8386700
Dissolved Beryllium (Be)	mg/L	<0.000010	8386700	<0.000010	8386700	<0.000010	0.000010	8386700
Dissolved Bismuth (Bi)	mg/L	<0.0000050	8386700	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Boron (B)	mg/L	<0.010	8386700	<0.010	8386700	<0.010	0.010	8386700
Dissolved Cadmium (Cd)	mg/L	<0.0000050	8386700	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Chromium (Cr)	mg/L	<0.00010	8386700	0.00022	8386700	<0.00010	0.00010	8386700
Dissolved Cobalt (Co)	mg/L	0.0000160	8386700	0.0000070	8386700	0.000408	0.0000050	8386700
Dissolved Copper (Cu)	mg/L	<0.000050	8386700	0.000051	8386700	0.000113	0.000050	8386700
Dissolved Iron (Fe)	mg/L	8.39	8386700	1.49	8386700	1.16	0.0010	8386700
Dissolved Lead (Pb)	mg/L	0.0000120	8386700	0.0000160	8386700	0.0000330	0.0000050	8386700
Dissolved Lithium (Li)	mg/L	0.00223	8386700	0.00261	8386700	0.00170	0.00050	8386700
Dissolved Manganese (Mn)	mg/L	0.0725	8386700	0.00923	8386700	0.105	0.000050	8386700
Dissolved Molybdenum (Mo)	mg/L	0.00254	8386700	0.00844	8386700	0.0138	0.000050	8386700
Dissolved Nickel (Ni)	mg/L	0.000077	8386700	0.000355	8386700	0.000783	0.000020	8386700
Dissolved Phosphorus (P)	mg/L	0.0102	8392434	0.0096	8386700	0.0231	0.0020	8386700
Dissolved Selenium (Se)	mg/L	<0.000040	8386700	<0.000040	8386700	<0.000040	0.000040	8386700
Dissolved Silicon (Si)	mg/L	4.38	8386700	4.34	8386700	5.37	0.050	8386700
Dissolved Silver (Ag)	mg/L	<0.0000050	8386700	<0.0000050	8386700	<0.0000050	0.0000050	8386700
Dissolved Strontium (Sr)	mg/L	0.171	8386700	0.163	8386700	0.124	0.000050	8386700
Dissolved Thallium (Tl)	mg/L	<0.0000020	8386700	<0.0000020	8386700	<0.0000020	0.0000020	8386700
Dissolved Tin (Sn)	mg/L	<0.00020	8386700	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Titanium (Ti)	mg/L	<0.00050	8386700	<0.00050	8386700	<0.00050	0.00050	8386700
Dissolved Uranium (U)	mg/L	0.0182	8386700	0.0102	8386700	0.00650	0.0000020	8386700
Dissolved Vanadium (V)	mg/L	<0.00020	8386700	<0.00020	8386700	<0.00020	0.00020	8386700
Dissolved Zinc (Zn)	mg/L	0.00062	8386700	0.00034	8386700	0.00269	0.00010	8386700
Dissolved Zirconium (Zr)	mg/L	0.00043	8386700	<0.00010	8386700	0.00015	0.00010	8386700
Dissolved Calcium (Ca)	mg/L	95.3	8383437	70.2	8383437	66.9	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	11.4	8383437	21.3	8383437	17.7	0.050	8383437
Dissolved Potassium (K)	mg/L	1.88	8383437	1.76	8383437	1.46	0.050	8383437
RDL = Reportable Detection Limit								

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Report Date: 2016/09/28

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2897		PK2898		PK2899		
Sampling Date		2016/08/29 11:17		2016/08/29 13:42		2016/08/28 10:05		
COC Number		08426944		08426944		08426944		
	UNITS	**MW06-10M**	**QC Batch**	**MW06-10D**	**QC Batch**	**MW06-11S**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	3.14	8383437	0.784	8383437	1.37	0.050	8383437
Dissolved Sulphur (S)	mg/L	21.1	8383437	8.1	8383437	11.4	3.0	8383437
RDL = Reportable Detection Limit								

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2900		PK2901		
Sampling Date		2016/08/29 08:50		2016/08/29 13:06		
COC Number		08426944		08426944		
	UNITS	MW06-12S	QC Batch	MW06-13	RDL	QC Batch
ANIONS						
Bromide (Br)	mg/L	0.012	8390652	0.022	0.010	8390659
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.00273	8386714	0.0576	0.00050	8386714
Dissolved Antimony (Sb)	mg/L	0.000671	8386714	0.000032	0.000020	8386714
Dissolved Arsenic (As)	mg/L	0.00138	8386714	0.000180	0.000020	8386714
Dissolved Barium (Ba)	mg/L	0.0215	8386714	0.322	0.000020	8386714
Dissolved Beryllium (Be)	mg/L	<0.000010	8386714	<0.000010	0.000010	8386714
Dissolved Bismuth (Bi)	mg/L	<0.0000050	8386714	<0.0000050	0.0000050	8386714
Dissolved Boron (B)	mg/L	<0.010	8386714	<0.010	0.010	8386714
Dissolved Cadmium (Cd)	mg/L	0.0000070	8386714	0.000119	0.0000050	8386714
Dissolved Chromium (Cr)	mg/L	0.00011	8386714	0.00041	0.00010	8386714
Dissolved Cobalt (Co)	mg/L	0.000480	8386714	0.0000810	0.0000050	8386714
Dissolved Copper (Cu)	mg/L	0.000154	8386714	0.00233	0.000050	8386714
Dissolved Iron (Fe)	mg/L	1.07	8386714	0.0129	0.0010	8386714
Dissolved Lead (Pb)	mg/L	0.000354	8386714	0.0000340	0.0000050	8386714
Dissolved Lithium (Li)	mg/L	0.00464	8386714	<0.00050	0.00050	8386714
Dissolved Manganese (Mn)	mg/L	0.151	8386714	1.32	0.000050	8386714
Dissolved Molybdenum (Mo)	mg/L	0.000858	8386714	0.000268	0.000050	8386714
Dissolved Nickel (Ni)	mg/L	0.00187	8386714	0.00479	0.000020	8386714
Dissolved Phosphorus (P)	mg/L	0.0035	8386714	0.0083	0.0020	8386714
Dissolved Selenium (Se)	mg/L	<0.000040	8386714	0.000381	0.000040	8386714
Dissolved Silicon (Si)	mg/L	3.91	8386714	4.83	0.050	8386714
Dissolved Silver (Ag)	mg/L	<0.0000050	8386714	<0.0000050	0.0000050	8386714
Dissolved Strontium (Sr)	mg/L	0.514	8386714	0.139	0.000050	8386714
Dissolved Thallium (Tl)	mg/L	0.0000020	8386714	0.0000050	0.0000020	8386714
Dissolved Tin (Sn)	mg/L	<0.00020	8386714	<0.00020	0.00020	8386714
Dissolved Titanium (Ti)	mg/L	<0.00050	8386714	0.00070	0.00050	8386714
Dissolved Uranium (U)	mg/L	0.0209	8386714	0.000444	0.0000020	8386714
Dissolved Vanadium (V)	mg/L	<0.00020	8386714	<0.00020	0.00020	8386714
Dissolved Zinc (Zn)	mg/L	0.00275	8386714	0.00157	0.00010	8386714
Dissolved Zirconium (Zr)	mg/L	<0.00010	8386714	0.00010	0.00010	8386714
Dissolved Calcium (Ca)	mg/L	133	8383437	56.6	0.050	8383437
Dissolved Magnesium (Mg)	mg/L	20.8	8383437	7.06	0.050	8383437
Dissolved Potassium (K)	mg/L	3.62	8383437	1.03	0.050	8383437
RDL = Reportable Detection Limit						

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PK2900		PK2901		
Sampling Date		2016/08/29 08:50		2016/08/29 13:06		
COC Number		08426944		08426944		
	UNITS	**MW06-12S**	**QC Batch**	**MW06-13**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	4.68	8383437	6.42	0.050	8383437
Dissolved Sulphur (S)	mg/L	86.5	8383437	17.3	3.0	8383437
RDL = Reportable Detection Limit						

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YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C
Package 2	2.3°C
Package 3	3.0°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample PK2890-03 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample PK2881, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PK2885, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PK2895, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PK2897, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8384575	Turbidity	2016/09/01			103	80 - 120	<0.10	NTU	NC	20
8384576	Turbidity	2016/09/01			101	80 - 120	<0.10	NTU	NC	20
8384622	Total Dissolved Solids	2016/09/03	NC	80 - 120	82	80 - 120	<10	mg/L	0.60	20
8384694	Fluoride (F)	2016/09/01	101	80 - 120	102	80 - 120	0.013, RDL=0.010	mg/L	NC	20
8384699	Fluoride (F)	2016/09/01	102	80 - 120	100	80 - 120	0.013, RDL=0.010	mg/L	0	20
8384843	Orthophosphate (P)	2016/09/01	111	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20
8384846	Orthophosphate (P)	2016/09/01	96	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20
8384993	Alkalinity (PP as CaCO3)	2016/09/02					<0.50	mg/L	NC	20
8384993	Alkalinity (Total as CaCO3)	2016/09/02	NC	80 - 120	95	80 - 120	0.50, RDL=0.50	mg/L	2.4	20
8384993	Bicarbonate (HCO3)	2016/09/02					0.61, RDL=0.50	mg/L	2.4	20
8384993	Carbonate (CO3)	2016/09/02					<0.50	mg/L	NC	20
8384993	Hydroxide (OH)	2016/09/02					<0.50	mg/L	NC	20
8384996	pH	2016/09/02			102	97 - 103			0.98	N/A
8384997	Conductivity	2016/09/02			101	80 - 120	<1.0	uS/cm	0.74	20
8385000	Alkalinity (PP as CaCO3)	2016/09/02					<0.50	mg/L	NC	20
8385000	Alkalinity (Total as CaCO3)	2016/09/02	NC	80 - 120	101	80 - 120	<0.50	mg/L	0.89	20
8385000	Bicarbonate (HCO3)	2016/09/02					<0.50	mg/L	0.25	20
8385000	Carbonate (CO3)	2016/09/02					<0.50	mg/L	NC	20
8385000	Hydroxide (OH)	2016/09/02					<0.50	mg/L	NC	20
8385003	pH	2016/09/02			102	97 - 103			0	N/A
8385004	Conductivity	2016/09/02			101	80 - 120	1.2, RDL=1.0	uS/cm	0.24	20
8385373	Total Suspended Solids	2016/09/03	111	80 - 120	101	80 - 120	<4.0	mg/L	NC	20
8385374	Total Suspended Solids	2016/09/03	108	80 - 120	103	80 - 120	<4.0	mg/L	NC	20
8385393	Nitrate plus Nitrite (N)	2016/09/01	NC	80 - 120	104	80 - 120	<0.0020	mg/L	NC	25
8385394	Nitrite (N)	2016/09/01	NC	80 - 120	99	80 - 120	<0.0020	mg/L	NC	25
8385397	Nitrate plus Nitrite (N)	2016/09/01	105	80 - 120	109	80 - 120	<0.0020	mg/L	3.7	25
8385399	Nitrite (N)	2016/09/01	100	80 - 120	99	80 - 120	<0.0020	mg/L	NC	25
8386251	Total Dissolved Solids	2016/09/03	100	80 - 120	104	80 - 120	<10	mg/L		
8386571	Dissolved Chloride (Cl)	2016/09/03	NC	80 - 120	103	80 - 120	<1.0	mg/L	1.5	20
8386577	Dissolved Sulphate (SO4)	2016/09/03	NC	80 - 120	108	80 - 120	<1.0	mg/L	1.5	20
8386580	Dissolved Chloride (Cl)	2016/09/03	106	80 - 120	104	80 - 120	<1.0	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8386582	Dissolved Sulphate (SO4)	2016/09/03	NC	80 - 120	105	80 - 120	<1.0	mg/L	0.35	20
8386584	Acidity (pH 4.5)	2016/09/03					<0.50	mg/L	NC	20
8386584	Acidity (pH 8.3)	2016/09/03			103	80 - 120	0.80, RDL=0.50	mg/L	NC	20
8386700	Dissolved Aluminum (Al)	2016/09/07	101	80 - 120	108	80 - 120	<0.00050	mg/L	NC	20
8386700	Dissolved Antimony (Sb)	2016/09/07	98	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8386700	Dissolved Arsenic (As)	2016/09/07	NC	80 - 120	103	80 - 120	<0.000020	mg/L	0.18	20
8386700	Dissolved Barium (Ba)	2016/09/07	NC	80 - 120	103	80 - 120	<0.000020	mg/L	1.8	20
8386700	Dissolved Beryllium (Be)	2016/09/07	93	80 - 120	95	80 - 120	<0.000010	mg/L	NC	20
8386700	Dissolved Bismuth (Bi)	2016/09/07	96	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
8386700	Dissolved Boron (B)	2016/09/07	92	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
8386700	Dissolved Cadmium (Cd)	2016/09/07	98	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8386700	Dissolved Chromium (Cr)	2016/09/07	96	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
8386700	Dissolved Cobalt (Co)	2016/09/07	94	80 - 120	102	80 - 120	<0.0000050	mg/L	1.6	20
8386700	Dissolved Copper (Cu)	2016/09/07	93	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8386700	Dissolved Iron (Fe)	2016/09/07	NC	80 - 120	106	80 - 120	<0.0010	mg/L	0.080	20
8386700	Dissolved Lead (Pb)	2016/09/07	97	80 - 120	103	80 - 120	<0.0000050	mg/L	7.4	20
8386700	Dissolved Lithium (Li)	2016/09/07	95	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20
8386700	Dissolved Manganese (Mn)	2016/09/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	1.0	20
8386700	Dissolved Molybdenum (Mo)	2016/09/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	1.4	20
8386700	Dissolved Nickel (Ni)	2016/09/07	94	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8386700	Dissolved Phosphorus (P)	2016/09/07					<0.0020	mg/L	2.5	20
8386700	Dissolved Selenium (Se)	2016/09/07	103	80 - 120	103	80 - 120	<0.000040	mg/L	NC	20
8386700	Dissolved Silicon (Si)	2016/09/07					<0.050	mg/L	0.0033	20
8386700	Dissolved Silver (Ag)	2016/09/07	75 (1)	80 - 120	87	80 - 120	<0.0000050	mg/L	NC	20
8386700	Dissolved Strontium (Sr)	2016/09/07	NC	80 - 120	102	80 - 120	<0.000050	mg/L	0.017	20
8386700	Dissolved Thallium (Tl)	2016/09/07	76 (1)	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
8386700	Dissolved Tin (Sn)	2016/09/07	95	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8386700	Dissolved Titanium (Ti)	2016/09/07	96	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20
8386700	Dissolved Uranium (U)	2016/09/07	98	80 - 120	104	80 - 120	<0.0000020	mg/L	2.0	20
8386700	Dissolved Vanadium (V)	2016/09/07	97	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
8386700	Dissolved Zinc (Zn)	2016/09/07	103	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20
8386700	Dissolved Zirconium (Zr)	2016/09/07					<0.00010	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8386714	Dissolved Aluminum (Al)	2016/09/07	99	80 - 120	108	80 - 120	<0.00050	mg/L	3.0	20
8386714	Dissolved Antimony (Sb)	2016/09/07	103	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
8386714	Dissolved Arsenic (As)	2016/09/07	NC	80 - 120	104	80 - 120	<0.000020	mg/L	1.5	20
8386714	Dissolved Barium (Ba)	2016/09/07	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.84	20
8386714	Dissolved Beryllium (Be)	2016/09/07	99	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
8386714	Dissolved Bismuth (Bi)	2016/09/07	103	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8386714	Dissolved Boron (B)	2016/09/07	98	80 - 120	98	80 - 120	<0.010	mg/L	NC	20
8386714	Dissolved Cadmium (Cd)	2016/09/07	104	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8386714	Dissolved Chromium (Cr)	2016/09/07	98	80 - 120	105	80 - 120	<0.00010	mg/L	NC	20
8386714	Dissolved Cobalt (Co)	2016/09/07	99	80 - 120	102	80 - 120	<0.0000050	mg/L	0	20
8386714	Dissolved Copper (Cu)	2016/09/07	96	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8386714	Dissolved Iron (Fe)	2016/09/07	NC	80 - 120	106	80 - 120	<0.0010	mg/L	2.1	20
8386714	Dissolved Lead (Pb)	2016/09/07	103	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8386714	Dissolved Lithium (Li)	2016/09/07	99	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
8386714	Dissolved Manganese (Mn)	2016/09/07	NC	80 - 120	106	80 - 120	<0.000050	mg/L	0.74	20
8386714	Dissolved Molybdenum (Mo)	2016/09/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.69	20
8386714	Dissolved Nickel (Ni)	2016/09/07	94	80 - 120	104	80 - 120	<0.000020	mg/L	14	20
8386714	Dissolved Phosphorus (P)	2016/09/07					<0.0020	mg/L	7.0	20
8386714	Dissolved Selenium (Se)	2016/09/07	106	80 - 120	105	80 - 120	<0.000040	mg/L	NC	20
8386714	Dissolved Silicon (Si)	2016/09/07					<0.050	mg/L	0.040	20
8386714	Dissolved Silver (Ag)	2016/09/07	81	80 - 120	81	80 - 120	<0.0000050	mg/L	NC	20
8386714	Dissolved Strontium (Sr)	2016/09/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	3.0	20
8386714	Dissolved Thallium (Tl)	2016/09/07	83	80 - 120	98	80 - 120	<0.0000020	mg/L	NC	20
8386714	Dissolved Tin (Sn)	2016/09/07	103	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
8386714	Dissolved Titanium (Ti)	2016/09/07	84	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
8386714	Dissolved Uranium (U)	2016/09/07	105	80 - 120	102	80 - 120	<0.0000020	mg/L	1.9	20
8386714	Dissolved Vanadium (V)	2016/09/07	96	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8386714	Dissolved Zinc (Zn)	2016/09/07	95	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8386714	Dissolved Zirconium (Zr)	2016/09/07					<0.00010	mg/L	NC	20
8386755	Acidity (pH 4.5)	2016/09/03					<0.50	mg/L	NC	20
8386755	Acidity (pH 8.3)	2016/09/03			105	80 - 120	0.85, RDL=0.50	mg/L	NC	20
8387153	Acidity (pH 4.5)	2016/09/03					<0.50	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8387153	Acidity (pH 8.3)	2016/09/03			103	80 - 120	<0.50	mg/L		
8387225	Total Dissolved Solids	2016/09/06	NC	80 - 120	88	80 - 120	<10	mg/L	9.7	20
8387300	Total Ammonia (N)	2016/09/03	NC	80 - 120	96	80 - 120	<0.0050	mg/L	4.6	20
8387301	Total Ammonia (N)	2016/09/03	NC	80 - 120	107	80 - 120	<0.0050	mg/L	0.23	20
8387302	Total Ammonia (N)	2016/09/03	NC	80 - 120	96	80 - 120	<0.0050	mg/L	4.3	20
8387546	Total Phosphorus (P)	2016/09/03	92	80 - 120	105	80 - 120	<0.0020	mg/L	NC	20
8387547	Total Phosphorus (P)	2016/09/03	NC	80 - 120	107	80 - 120	<0.0020	mg/L	0.31	20
8388833	Dissolved Phosphorus (P)	2016/09/03	101	80 - 120	97	80 - 120	<0.0020	mg/L	2.2	20
8388838	Dissolved Phosphorus (P)	2016/09/03			101	80 - 120	<0.0020	mg/L		
8390650	Bromide (Br)	2016/09/08	102	78 - 120	97	80 - 120	<0.010	mg/L	NC	20
8390652	Bromide (Br)	2016/09/08	99	78 - 120	102	80 - 120	<0.010	mg/L	NC	20
8390659	Bromide (Br)	2016/09/08	92	78 - 120	91	80 - 120	<0.010	mg/L	NC	20
8392434	Dissolved Phosphorus (P)	2016/09/09					<0.0020	mg/L		
8393371	Total Dissolved Solids	2016/09/12	105	80 - 120	90	80 - 120	<10	mg/L	11	20
8393935	Total Phosphorus (P)	2016/09/10			101	80 - 120	<0.0020	mg/L		
8393937	Dissolved Phosphorus (P)	2016/09/10			101	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

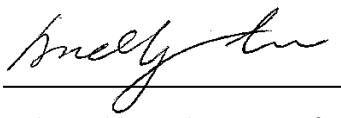
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B674769
Report Date: 2016/09/28

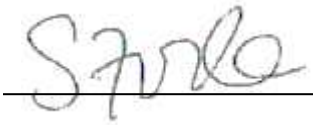
YUKON ZINC CORPORATION

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



Suwan Fock, B.Sc., QP, Inorganics Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

08426944

BY FCD-00077/05

Page ____ of ____

AT) Required

Invoice Information	Report Information (if differs from invoice)	Project Informa
Company Name: Yukon Zinc Corporation	Company Name:	Quotation #:
Contact Name: Alex Wu	Contact Name:	P.O. #/ AFE#:
Address: 705 - 1090 West Georgia Street	Address:	Project #:
Vancouver PC: V6E 2Y3	PC:	Site Location:
Phone: 604-684-5474	Phone:	Site #:
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By:

☑ Regular TAT 5 days (Most analyses)

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)

☐ Same Day ☐ 2 Days ☐ 1 Day ☐ 3 Days

Date Required:

Rush Confirmation #:

Regulatory Criteria

☐ BC CSR Soil ☐ BC CSR Water ☐ CCME (Specify) ☐ Other (Specify) ☐ Drinking Water ☐ BC Water Quality

Special Instructions

☐ Return Cooler ☐ Ship Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

LABORATORY USE ONLY

CUSTODY SEAL Present / Intact

COOLER TEMPERATURES

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COOLER TEMPERATURES
	Bottle							1A 2.2.2
	Preservative							1B 2.2.3
	Filtered							1C 3.1.2
1	MW05-1A		16-29-8	9:25	Water	5		COOLING MEDIA PRESENT (I / ICE / N)
2	MW05-1B		16-29-8	9:11	Water	5		COMMENTS
3	MW05-2A		16-29-8	14:04	Water	5		
4	MW05-2B		16-29-8	14:10	Water	5		
5	MW05-3A		16-29-8	10:50	Water	5		
6	MW05-3B		16-28-8	10:26	Water	5		
7	MW05-4A		16-26-8	16:40	Water	5		
8	MW05-4B		16-26-8	16:02	Water	5		
9	MW05-5A		16-29-8	08:56	Water	5		
10	MW05-5B		16-28-8	9:20	Water	5		
11	MW05-6A		16-29-08	10:55	Water	5		
12	MW05-6B		16-29-8	10:15	Water	5		
13	MW05-7B		16-29-8	13:25	Water	5		
14	MW06-8S		2016-28-8	15:47	Water	5		
15	MW06-8M		16-28-8	15:35	Water	5		
16	MW06-8D		16-28-8	11:00	Water	5		
17	MW06-9S		16-28-8	14:23	Water	5		
18	MW06-9M		16-28-8	14:18	Water	5		
19	MW06-10S		16-29-8	11:10	Water	5		
20	MW06-10M		16-29-8	11:17	Water	5		
21	MW06-10D		16-29-8	13:42	Water	5		
22	MW06-11S		16-26-8	10:05	Water	5		
23	MW06-12S		16-29-8	08:50	Water	5		
24	MW06-13		16-25-8	13:06	Water	5		

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Unrau	2016/08/30	15:00	Maxxam Bethmer	2016/08/31	14:00

B674769_COC

Your C.O.C. #: 08427694

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/09/30
Report #: R2272983
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B683332
Received: 2016/09/22, 10:30

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	9	N/A	2016/09/27	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	9	2016/09/24	2016/09/24	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	9	N/A	2016/09/29	AB SOP-00020	SM 22-4500-Cl G m
Cyanide SAD (strong acid dissociable)	1	N/A	2016/09/27	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (2)	2	N/A	2016/09/26	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	9	N/A	2016/09/24	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	9	N/A	2016/09/26	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	5	N/A	2016/09/28	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3)	1	N/A	2016/09/29	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	9	N/A	2016/09/28	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	9	N/A	2016/09/26	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	9	N/A	2016/09/28	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	2	N/A	2016/09/27	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	7	N/A	2016/09/28	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	1	2016/09/28	2016/09/28	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2016/09/28	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2016/09/29	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	4	N/A	2016/09/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	1	N/A	2016/09/28	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Unpreserved)	2	N/A	2016/09/26	BBY6SOP-00009	SM 22 4500-NH3- G m
Ammonia-N (Preserved)	7	N/A	2016/09/26	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	9	N/A	2016/09/24	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	9	N/A	2016/09/24	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	9	N/A	2016/09/28	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	8	N/A	2016/09/24	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	1	N/A	2016/09/29	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	9	N/A	2016/09/24	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	8	N/A	2016/09/24	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	1	N/A	2016/09/30	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry (1)	9	N/A	2016/09/29	AB SOP-00018	SM 22 4500-SO4 E m

Your C.O.C. #: 08427694

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/09/30
Report #: R2272983
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B683332
Received: 2016/09/22, 10:30

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue)	9	2016/09/27	2016/09/28	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	5	2016/09/27	2016/09/27	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	4	2016/09/30	2016/09/30	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	4	N/A	2016/09/27	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus	3	N/A	2016/09/30	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	9	2016/09/27	2016/09/28	BBY6SOP-00034	SM 22 2540 D
Turbidity	9	N/A	2016/09/24	BBY6SOP-00027	SM 22 2130 B m

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 Maxxam Calgary Environmental
(2) DOC present in the sample should be considered as non-purgeable DOC.
(3) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9482			PO9483		
Sampling Date		2016/09/21			2016/09/21		
COC Number		08427694			08427694		
	UNITS	BIOREACTOR-INLET	RDL	QC Batch	BIOREACTOR-OUTLET	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	0.073	0.010	8411311	0.059	0.010	8411311
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1280	0.50	8408456	862	0.50	8408456
Nitrate (N)	mg/L	1.28	0.20	8408849	0.26	0.20	8408849
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	1240	0.50	8408457	869	0.50	8408457
Acidity (pH 4.5)	mg/L	<0.50	0.50	8412285	<0.50	0.50	8412285
Alkalinity (Total as CaCO3)	mg/L	78.3	0.50	8410065	245	0.50	8410065
Acidity (pH 8.3)	mg/L	37.4	0.50	8412285	0.74	0.50	8412285
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8410065	<0.50	0.50	8410065
Bicarbonate (HCO3)	mg/L	95.6	0.50	8410065	299	0.50	8410065
Carbonate (CO3)	mg/L	<0.50	0.50	8410065	<0.50	0.50	8410065
Hydroxide (OH)	mg/L	<0.50	0.50	8410065	<0.50	0.50	8410065
Anions							
Orthophosphate (P)	mg/L	0.0014	0.0010	8411776	0.0029	0.0010	8411776
Dissolved Sulphate (SO4)	mg/L	1300 (1)	10	8415763	690 (1)	5.0	8415763
Dissolved Chloride (Cl)	mg/L	9.6	1.0	8415754	6.8	1.0	8415754
Nutrients							
Dissolved Phosphorus (P)	mg/L	0.0085 (2)	0.0020	8412593	0.0097 (3)	0.0020	8417646
Total Ammonia (N)	mg/L	0.49 (2)	0.0050	8410328	0.088 (2)	0.0050	8410328
Nitrate plus Nitrite (N)	mg/L	1.28 (4)	0.20	8412926	0.26 (4)	0.20	8412926
Nitrite (N)	mg/L	<0.20 (4)	0.20	8412928	<0.20 (4)	0.20	8412928
Physical Properties							
Conductivity	uS/cm	2240	1.0	8410064	1570	1.0	8410064
pH	pH	7.50		8410061	8.00		8410061
Physical Properties							
Total Suspended Solids	mg/L	<4.0	4.0	8412392	23.0 (4)	8.0	8412392
Total Dissolved Solids	mg/L	2060	10	8412565	1310	10	8412565

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) Sample preserved to extend hold time.
(3) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
(4) RDL raised due to sample matrix interference.

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9482			PO9483		
Sampling Date		2016/09/21			2016/09/21		
COC Number		08427694			08427694		
	UNITS	BIOREACTOR-INLET	RDL	QC Batch	BIOREACTOR-OUTLET	RDL	QC Batch
Turbidity	NTU	0.17	0.10	8409951	47.7	0.10	8409951
RDL = Reportable Detection Limit							

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9484			PO9485			PO9486		
Sampling Date		2016/09/20			2016/09/20			2016/09/20		
COC Number		08427694			08427694			08427694		
	UNITS	T1	RDL	QC Batch	MW05-5A	RDL	QC Batch	MW05-5B	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.180	0.010	8411311	2.00	0.010	8411311	0.230	0.010	8411311
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1590	0.50	8408456		0.50	8408456		0.50	8408456
Nitrate (N)	mg/L	0.21	0.20	8408849	0.38	0.20	8408849	0.22	0.20	8408849
Misc. Inorganics										
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0115	0.00050	8412763		0.00050	8412763		0.00050	8412763
Dissolved Hardness (CaCO3)	mg/L	1510	0.50	8408457	256	0.50	8408457	155	0.50	8408457
Acidity (pH 4.5)	mg/L	<0.50	0.50	8412285	<0.50	0.50	8412285	<0.50	0.50	8412285
Alkalinity (Total as CaCO3)	mg/L	9.36	0.50	8410065	224	0.50	8410065	116	0.50	8410065
Acidity (pH 8.3)	mg/L	2.35	0.50	8412285	<0.50	0.50	8412285	<0.50	0.50	8412285
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8410065	<0.50	0.50	8410065	<0.50	0.50	8410065
Bicarbonate (HCO3)	mg/L	11.4	0.50	8410065	273	0.50	8410065	141	0.50	8410065
Carbonate (CO3)	mg/L	<0.50	0.50	8410065	<0.50	0.50	8410065	<0.50	0.50	8410065
Hydroxide (OH)	mg/L	<0.50	0.50	8410065	<0.50	0.50	8410065	<0.50	0.50	8410065
Anions										
Orthophosphate (P)	mg/L	0.0051 (1)	0.0010	8411776	0.0074 (1)	0.0010	8411776	0.0040 (1)	0.0010	8411776
Dissolved Sulphate (SO4)	mg/L	1700 (2)	10	8415763	38 (2)	2.0	8415763	42	1.0	8415763
Dissolved Chloride (Cl)	mg/L	230 (2)	2.0	8415754	1.5	1.0	8415754	1.5	1.0	8415754
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.103 (1)	0.0020	8412593	0.0154 (1)	0.0020	8417646	0.0100 (1)	0.0020	8412593
Total Ammonia (N)	mg/L	0.44	0.0050	8411415	0.12	0.0050	8411415	0.090	0.0050	8411415
Nitrate plus Nitrite (N)	mg/L	0.21 (3)	0.20	8412926	0.38 (3)	0.20	8412926	0.22 (3)	0.20	8412926
Nitrite (N)	mg/L	<0.20 (3)	0.20	8412928	<0.20 (3)	0.20	8412928	<0.20 (3)	0.20	8412928
Total Phosphorus (P)	mg/L	0.0931	0.0020	8412688	0.0209	0.0020	8417650	0.0105	0.0020	8412688
Physical Properties										
Conductivity	uS/cm	3000	1.0	8410064	484	1.0	8410064	308	1.0	8410064
pH	pH	6.82		8410061	8.10		8410061	7.95		8410061
Physical Properties										
Total Suspended Solids	mg/L	5.0	4.0	8412371	<4.0	4.0	8412371	<4.0	4.0	8412371
Total Dissolved Solids	mg/L	2790	10	8412389	280	10	8412389	194	10	8412389

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) Detection limits raised due to dilution to bring analyte within the calibrated range.
(3) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9484			PO9485			PO9486		
Sampling Date		2016/09/20			2016/09/20			2016/09/20		
COC Number		08427694			08427694			08427694		
	UNITS	T1	RDL	QC Batch	MW05-5A	RDL	QC Batch	MW05-5B	RDL	QC Batch
Turbidity	NTU	8.01 (1)	0.10	8409951	10.2 (1)	0.10	8409951	4.72 (1)	0.10	8409951

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9487			PO9488		PO9489		
Sampling Date		2016/09/20			2016/09/21		2016/09/21		
COC Number		08427694			08427694		08427694		
	UNITS	MW06-11S	RDL	QC Batch	W9	QC Batch	L1	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	2.60	0.010	8411311	0.077	8411311	0.041	0.010	8411311
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L		0.50	8408456	68.9	8408456	94.7	0.50	8409666
Nitrate (N)	mg/L	0.31	0.20	8408849	<0.20	8408849	0.29	0.20	8408849
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	245	0.50	8408457	72.8	8408457	98.2	0.50	8408457
Dissolved Organic Carbon (C)	mg/L		0.50	8411692	3.53	8411692	2.46	0.50	8411692
Acidity (pH 4.5)	mg/L	<0.50	0.50	8412285	<0.50	8412285	<0.50	0.50	8412285
Alkalinity (Total as CaCO3)	mg/L	207	0.50	8410065	60.8	8410065	75.2	0.50	8410065
Acidity (pH 8.3)	mg/L	<0.50	0.50	8412285	<0.50	8412285	<0.50	0.50	8412285
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8410065	<0.50	8410065	<0.50	0.50	8410065
Bicarbonate (HCO3)	mg/L	253	0.50	8410065	74.2	8410065	91.8	0.50	8410065
Carbonate (CO3)	mg/L	<0.50	0.50	8410065	<0.50	8410065	<0.50	0.50	8410065
Hydroxide (OH)	mg/L	<0.50	0.50	8410065	<0.50	8410065	<0.50	0.50	8410065
Anions									
Orthophosphate (P)	mg/L	0.0073 (1)	0.0010	8417628	0.0084	8411776	<0.0010	0.0010	8411776
Dissolved Sulphate (SO4)	mg/L	35 (2)	2.0	8415763	16	8415763	26	1.0	8415763
Dissolved Chloride (Cl)	mg/L	<1.0	1.0	8415754	<1.0	8415754	<1.0	1.0	8415754
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.0131 (1)	0.0020	8417646	0.0268 (3)	8412593	0.0087 (3)	0.0020	8412593
Total Ammonia (N)	mg/L	0.27	0.0050	8411415	0.029	8411415	0.016	0.0050	8411415
Nitrate plus Nitrite (N)	mg/L	0.31 (4)	0.20	8412926	<0.20 (5)	8412926	0.29 (5)	0.20	8412926
Nitrite (N)	mg/L	<0.20 (4)	0.20	8412928	<0.20 (5)	8412928	<0.20 (5)	0.20	8412928
Total Phosphorus (P)	mg/L	0.0187	0.0020	8417650	0.0258	8412688	0.0090	0.0020	8412688
Physical Properties									
Conductivity	uS/cm	455	1.0	8410064	147	8410064	198	1.0	8410064
pH	pH	8.15		8410061	7.93	8410061	7.99		8410061

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) Detection limits raised due to dilution to bring analyte within the calibrated range.
(3) Sample preserved to extend hold time.
(4) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.
(5) RDL raised due to sample matrix interference.

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9487			PO9488		PO9489		
Sampling Date		2016/09/20			2016/09/21		2016/09/21		
COC Number		08427694			08427694		08427694		
	UNITS	MW06-11S	RDL	QC Batch	W9	QC Batch	L1	RDL	QC Batch
Physical Properties									
Total Suspended Solids	mg/L	<4.0	4.0	8412371	<4.0	8412392	5.0	4.0	8412392
Total Dissolved Solids	mg/L	266	10	8412389	88	8412389	108	10	8412565
Turbidity	NTU	16.8 (1)	0.10	8409951	1.00	8409951	0.56	0.10	8409951

RDL = Reportable Detection Limit
(1) Sample analysed past recommended hold time.

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9490		
Sampling Date		2016/09/21		
COC Number		08427694		
	UNITS	W 15	RDL	QC Batch
Misc. Inorganics				
Fluoride (F)	mg/L	0.060	0.010	8411311
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	65.2	0.50	8409666
Nitrate (N)	mg/L	0.24	0.20	8408849
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	67.8	0.50	8408457
Acidity (pH 4.5)	mg/L	<0.50	0.50	8412285
Alkalinity (Total as CaCO3)	mg/L	46.2	0.50	8410065
Acidity (pH 8.3)	mg/L	<0.50	0.50	8412285
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8410065
Bicarbonate (HCO3)	mg/L	56.3	0.50	8410065
Carbonate (CO3)	mg/L	<0.50	0.50	8410065
Hydroxide (OH)	mg/L	<0.50	0.50	8410065
Anions				
Orthophosphate (P)	mg/L	0.0016	0.0010	8411776
Dissolved Sulphate (SO4)	mg/L	27	1.0	8415763
Dissolved Chloride (Cl)	mg/L	<1.0	1.0	8415754
Nutrients				
Dissolved Phosphorus (P)	mg/L	0.0070 (1)	0.0020	8417646
Total Ammonia (N)	mg/L	0.024	0.0050	8411415
Nitrate plus Nitrite (N)	mg/L	0.24 (2)	0.20	8412926
Nitrite (N)	mg/L	<0.20 (2)	0.20	8412928
Total Phosphorus (P)	mg/L	0.0089	0.0020	8417650
Physical Properties				
Conductivity	uS/cm	146	1.0	8410064
pH	pH	7.80		8410061
Physical Properties				
Total Suspended Solids	mg/L	<4.0	4.0	8412392
Total Dissolved Solids	mg/L	92	10	8412960

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

(2) RDL raised due to sample matrix interference.

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YUKON ZINC CORPORATION
Sampler Initials: MS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PO9490		
Sampling Date		2016/09/21		
COC Number		08427694		
	UNITS	**W 15**	**RDL**	**QC Batch**
Turbidity	NTU	1.67	0.10	8409951
RDL = Reportable Detection Limit				

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Maxxam Job #: B683332
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YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9482			PO9483		
Sampling Date		2016/09/21			2016/09/21		
COC Number		08427694			08427694		
	UNITS	BIOREACTOR-INLET	RDL	QC Batch	BIOREACTOR-OUTLET	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	0.037	0.010	8411851	0.028	0.010	8411834
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.0061	0.0025	8412398	0.00482 (1)	0.00050	8412398
Dissolved Antimony (Sb)	mg/L	0.0147	0.00010	8412398	0.000072	0.000020	8412398
Dissolved Arsenic (As)	mg/L	0.00112	0.00010	8412398	0.00204	0.000020	8412398
Dissolved Barium (Ba)	mg/L	0.0221	0.00010	8412398	0.105	0.000020	8412398
Dissolved Beryllium (Be)	mg/L	<0.000050	0.000050	8412398	<0.000010	0.000010	8412398
Dissolved Bismuth (Bi)	mg/L	<0.000025	0.000025	8412398	<0.0000050	0.0000050	8412398
Dissolved Boron (B)	mg/L	<0.050	0.050	8412398	<0.010	0.010	8412398
Dissolved Cadmium (Cd)	mg/L	0.210	0.000025	8412398	0.0000060	0.0000050	8412398
Dissolved Chromium (Cr)	mg/L	<0.00050	0.00050	8412398	<0.00010	0.00010	8412398
Dissolved Cobalt (Co)	mg/L	0.0360	0.000025	8412398	0.00792	0.0000050	8412398
Dissolved Copper (Cu)	mg/L	0.0178	0.00025	8412398	0.000184	0.000050	8412398
Dissolved Iron (Fe)	mg/L	0.0072	0.0050	8412398	4.30	0.0010	8412398
Dissolved Lead (Pb)	mg/L	0.0536	0.000025	8412398	0.0000530 (1)	0.0000050	8416331
Dissolved Lithium (Li)	mg/L	0.0100	0.0025	8412398	<0.00050	0.00050	8412398
Dissolved Manganese (Mn)	mg/L	7.94	0.00025	8412398	8.98	0.000050	8412398
Dissolved Molybdenum (Mo)	mg/L	0.00325	0.00025	8412398	0.00338	0.000050	8412398
Dissolved Nickel (Ni)	mg/L	0.0738	0.00010	8412398	0.00932	0.000020	8412398
Dissolved Phosphorus (P)	mg/L	0.011	0.010	8412398	0.0119	0.0020	8412398
Dissolved Selenium (Se)	mg/L	0.0939	0.00020	8412398	0.00170	0.000040	8412398
Dissolved Silicon (Si)	mg/L	5.14	0.25	8412398	7.52	0.050	8412398
Dissolved Silver (Ag)	mg/L	<0.000025	0.000025	8412398	<0.0000050	0.0000050	8412398
Dissolved Strontium (Sr)	mg/L	1.69	0.00025	8412398	0.645	0.000050	8412398
Dissolved Thallium (Tl)	mg/L	0.00457	0.000010	8412398	0.0000060	0.0000020	8412398
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	8412398	<0.00020	0.00020	8412398
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	8412398	<0.00050	0.00050	8412398
Dissolved Uranium (U)	mg/L	0.00921	0.000010	8412398	0.00192	0.0000020	8412398
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	8412398	<0.00020	0.00020	8412398
Dissolved Zinc (Zn)	mg/L	27.9	0.00050	8412398	0.00859	0.00010	8416331
Dissolved Zirconium (Zr)	mg/L	<0.00050	0.00050	8412398	<0.00010	0.00010	8412398
Dissolved Calcium (Ca)	mg/L	451	0.25	8408645	286	0.050	8408645
Dissolved Magnesium (Mg)	mg/L	27.4	0.25	8408645	37.4	0.050	8408645

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9482			PO9483		
Sampling Date		2016/09/21			2016/09/21		
COC Number		08427694			08427694		
	UNITS	BIOREACTOR-INLET	RDL	QC Batch	BIOREACTOR-OUTLET	RDL	QC Batch
Dissolved Potassium (K)	mg/L	15.8	0.25	8408645	3.58	0.050	8408645
Dissolved Sodium (Na)	mg/L	68.0	0.25	8408645	28.1	0.050	8408645
Dissolved Sulphur (S)	mg/L	451	15	8408645	236	3.0	8408645
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0052	0.0025	8411463	0.00334	0.00050	8411463
Total Antimony (Sb)	mg/L	0.0156	0.00010	8411463	0.000066	0.000020	8411463
Total Arsenic (As)	mg/L	0.00110	0.00010	8411463	0.00201	0.000020	8411463
Total Barium (Ba)	mg/L	0.0237	0.00010	8411463	0.106	0.000020	8411463
Total Beryllium (Be)	mg/L	<0.000050	0.000050	8411463	<0.000010	0.000010	8411463
Total Bismuth (Bi)	mg/L	<0.000025	0.000025	8411463	<0.0000050	0.0000050	8411463
Total Boron (B)	mg/L	<0.050	0.050	8411463	<0.010	0.010	8411463
Total Cadmium (Cd)	mg/L	0.212	0.000025	8411463	0.0000050	0.0000050	8411463
Total Chromium (Cr)	mg/L	<0.00050	0.00050	8411463	<0.00010	0.00010	8411463
Total Cobalt (Co)	mg/L	0.0390	0.000025	8411463	0.00824	0.0000050	8411463
Total Copper (Cu)	mg/L	0.0199	0.00025	8411463	0.000069	0.000050	8411463
Total Iron (Fe)	mg/L	0.0070	0.0050	8411463	4.26	0.0010	8411463
Total Lead (Pb)	mg/L	0.0565	0.000025	8411463	0.0000060	0.0000050	8411463
Total Lithium (Li)	mg/L	0.0091	0.0025	8411463	0.00067	0.00050	8411463
Total Manganese (Mn)	mg/L	8.14	0.00025	8411463	9.07	0.000050	8411463
Total Molybdenum (Mo)	mg/L	0.00338	0.00025	8411463	0.00331	0.000050	8411463
Total Nickel (Ni)	mg/L	0.0806	0.00010	8411463	0.00964	0.000020	8411463
Total Phosphorus (P)	mg/L	<0.010	0.010	8411463	0.0113	0.0020	8411463
Total Selenium (Se)	mg/L	0.0963	0.00020	8411463	0.00174	0.000040	8411463
Total Silicon (Si)	mg/L	5.09	0.25	8411463	7.13	0.050	8411463
Total Silver (Ag)	mg/L	<0.000025	0.000025	8411463	<0.0000050	0.0000050	8411463
Total Strontium (Sr)	mg/L	1.67	0.00025	8411463	0.634	0.000050	8411463
Total Thallium (Tl)	mg/L	0.00504	0.000010	8411463	<0.0000020	0.0000020	8411463
Total Tin (Sn)	mg/L	<0.0010	0.0010	8411463	<0.00020	0.00020	8411463
Total Titanium (Ti)	mg/L	<0.0025	0.0025	8411463	<0.00050	0.00050	8411463
Total Uranium (U)	mg/L	0.00945	0.000010	8411463	0.00192	0.0000020	8411463
Total Vanadium (V)	mg/L	<0.0010	0.0010	8411463	<0.00020	0.00020	8411463
Total Zinc (Zn)	mg/L	29.4	0.00050	8411463	0.00774	0.00010	8411463
Total Zirconium (Zr)	mg/L	<0.00050	0.00050	8411463	<0.00010	0.00010	8411463
Total Calcium (Ca)	mg/L	463	0.25	8409610	284	0.050	8409610
Total Magnesium (Mg)	mg/L	28.7	0.25	8409610	37.2	0.050	8409610

RDL = Reportable Detection Limit

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9482			PO9483		
Sampling Date		2016/09/21			2016/09/21		
COC Number		08427694			08427694		
	UNITS	BIOREACTOR-INLET	RDL	QC Batch	BIOREACTOR-OUTLET	RDL	QC Batch
Total Potassium (K)	mg/L	16.6	0.25	8409610	3.59	0.050	8409610
Total Sodium (Na)	mg/L	72.2	0.25	8409610	28.7	0.050	8409610
Total Sulphur (S)	mg/L	457	15	8409610	228	3.0	8409610
RDL = Reportable Detection Limit							

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9484		PO9485	PO9486	PO9487		
Sampling Date		2016/09/20		2016/09/20	2016/09/20	2016/09/20		
COC Number		08427694		08427694	08427694	08427694		
	UNITS	T1	RDL	MW05-5A	MW05-5B	MW06-11S	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	0.132	0.010	<0.010	<0.010	<0.010	0.010	8411851
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.0094	0.0025	0.00424	0.00119	0.00792	0.00050	8412398
Dissolved Antimony (Sb)	mg/L	0.0463	0.00010	0.00352	0.000180	0.000088	0.000020	8412398
Dissolved Arsenic (As)	mg/L	0.00663	0.00010	0.00485	0.00228	0.00389	0.000020	8412398
Dissolved Barium (Ba)	mg/L	0.0711	0.00010	0.0484	0.0388	0.0483	0.000020	8412398
Dissolved Beryllium (Be)	mg/L	<0.000050	0.000050	0.000027	<0.000010	<0.000010	0.000010	8412398
Dissolved Bismuth (Bi)	mg/L	<0.000025	0.000025	<0.0000050	<0.0000050	<0.0000050	0.0000050	8412398
Dissolved Boron (B)	mg/L	<0.050	0.050	<0.010	<0.010	<0.010	0.010	8412398
Dissolved Cadmium (Cd)	mg/L	0.0117	0.000025	0.0000140	0.0000320	0.0000190	0.0000050	8412398
Dissolved Chromium (Cr)	mg/L	<0.00050	0.00050	<0.00010	<0.00010	<0.00010	0.00010	8412398
Dissolved Cobalt (Co)	mg/L	0.00182	0.000025	0.000187	0.000934	0.000367	0.0000050	8412398
Dissolved Copper (Cu)	mg/L	0.337	0.00025	0.000317	0.000196	0.000434	0.000050	8412398
Dissolved Iron (Fe)	mg/L	0.0537	0.0050	1.43	0.503	1.16	0.0010	8412398
Dissolved Lead (Pb)	mg/L	0.0410	0.000025	0.000252	0.0000360	0.000761	0.0000050	8412398
Dissolved Lithium (Li)	mg/L	0.0131	0.0025	0.00320	0.00135	0.00232	0.00050	8412398
Dissolved Manganese (Mn)	mg/L	0.416	0.00025	0.0877	0.889	0.0964	0.000050	8412398
Dissolved Molybdenum (Mo)	mg/L	0.0889	0.00025	0.00694	0.00131	0.0135	0.000050	8412398
Dissolved Nickel (Ni)	mg/L	0.00716	0.00010	0.00143	0.00639	0.000940	0.000020	8412398
Dissolved Phosphorus (P)	mg/L	0.090	0.010	0.0132	0.0076	0.0128	0.0020	8412398
Dissolved Selenium (Se)	mg/L	1.68	0.00020	0.000051	<0.000040	<0.000040	0.000040	8412398
Dissolved Silicon (Si)	mg/L	1.95	0.25	3.64	3.69	4.91	0.050	8412398
Dissolved Silver (Ag)	mg/L	0.00309	0.000025	<0.0000050	<0.0000050	<0.0000050	0.0000050	8412398
Dissolved Strontium (Sr)	mg/L	2.30	0.00025	0.127	0.115	0.118	0.000050	8412398
Dissolved Thallium (Tl)	mg/L	0.00102	0.000010	0.0000050	0.0000030	<0.0000020	0.0000020	8412398
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	<0.00020	<0.00020	0.00125	0.00020	8412398
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	<0.00050	<0.00050	<0.00050	0.00050	8412398
Dissolved Uranium (U)	mg/L	0.000433	0.000010	0.0238	0.00294	0.00678	0.0000020	8412398
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	<0.00020	<0.00020	<0.00020	0.00020	8412398
Dissolved Zinc (Zn)	mg/L	1.33	0.00050	0.0577	0.0866	0.00608	0.00010	8412398
Dissolved Zirconium (Zr)	mg/L	<0.00050	0.00050	0.00054	<0.00010	0.00010	0.00010	8412398
Dissolved Calcium (Ca)	mg/L	602	0.25	68.8	50.4	68.4	0.050	8408645
Dissolved Magnesium (Mg)	mg/L	2.64	0.25	20.4	7.17	18.1	0.050	8408645
Dissolved Potassium (K)	mg/L	45.4	0.25	1.42	0.602	1.54	0.050	8408645

RDL = Reportable Detection Limit

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9484		PO9485	PO9486	PO9487		
Sampling Date		2016/09/20		2016/09/20	2016/09/20	2016/09/20		
COC Number		08427694		08427694	08427694	08427694		
	UNITS	T1	RDL	MW05-5A	MW05-5B	MW06-11S	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	166	0.25	0.275	0.827	1.46	0.050	8408645
Dissolved Sulphur (S)	mg/L	786	15	11.5	13.5	11.1	3.0	8408645
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.024	0.015				0.00050	8414011
Total Antimony (Sb)	mg/L	0.0437	0.00010				0.000020	8414011
Total Arsenic (As)	mg/L	0.00742	0.00010				0.000020	8414011
Total Barium (Ba)	mg/L	0.0745	0.00025				0.000020	8414011
Total Beryllium (Be)	mg/L	<0.000050	0.000050				0.000010	8414011
Total Bismuth (Bi)	mg/L	<0.000050	0.000050				0.0000050	8414011
Total Boron (B)	mg/L	<0.050	0.050				0.010	8414011
Total Cadmium (Cd)	mg/L	0.0121	0.000025				0.0000050	8414011
Total Chromium (Cr)	mg/L	<0.00050	0.00050				0.00010	8414011
Total Cobalt (Co)	mg/L	0.00177	0.000050				0.0000050	8414011
Total Copper (Cu)	mg/L	0.364	0.00050				0.000050	8414011
Total Iron (Fe)	mg/L	0.218	0.025				0.0010	8414011
Total Lead (Pb)	mg/L	0.0796	0.00010				0.0000050	8414011
Total Lithium (Li)	mg/L	0.0110	0.0025				0.00050	8414011
Total Manganese (Mn)	mg/L	0.430	0.00050				0.000050	8414011
Total Molybdenum (Mo)	mg/L	0.0936	0.00025				0.000050	8414011
Total Nickel (Ni)	mg/L	0.00722	0.00050				0.000020	8414011
Total Selenium (Se)	mg/L	1.49	0.00020				0.000040	8414011
Total Silicon (Si)	mg/L	2.24	0.25				0.050	8414011
Total Silver (Ag)	mg/L	0.00454	0.000050				0.0000050	8414011
Total Strontium (Sr)	mg/L	2.62	0.00025				0.000050	8414011
Total Thallium (Tl)	mg/L	0.00107	0.000010				0.0000020	8414011
Total Tin (Sn)	mg/L	<0.0010	0.0010				0.00020	8414011
Total Titanium (Ti)	mg/L	<0.010	0.010				0.00050	8414011
Total Uranium (U)	mg/L	0.000526	0.000025				0.0000020	8414011
Total Vanadium (V)	mg/L	<0.0010	0.0010				0.00020	8414011
Total Zinc (Zn)	mg/L	1.36	0.0050				0.00010	8414011
Total Zirconium (Zr)	mg/L	<0.00050	0.00050				0.00010	8414011
Total Calcium (Ca)	mg/L	632	1.3				0.050	8409610
Total Magnesium (Mg)	mg/L	2.6	1.3				0.050	8409610
Total Potassium (K)	mg/L	46.8	1.3				0.050	8409610
Total Sodium (Na)	mg/L	165	1.3				0.050	8409610
RDL = Reportable Detection Limit								

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9484		PO9485	PO9486	PO9487		
Sampling Date		2016/09/20		2016/09/20	2016/09/20	2016/09/20		
COC Number		08427694		08427694	08427694	08427694		
	UNITS	**T1**	**RDL**	**MW05-5A**	**MW05-5B**	**MW06-11S**	**RDL**	**QC Batch**
Total Sulphur (S)	mg/L	829	15				3.0	8409610
RDL = Reportable Detection Limit								

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YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9488		PO9489	PO9490		
Sampling Date		2016/09/21		2016/09/21	2016/09/21		
COC Number		08427694		08427694	08427694		
	UNITS	W9	QC Batch	L1	W 15	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	8411851	<0.010	<0.010	0.010	8411834
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00665	8412398	0.00805	0.0110	0.00050	8412398
Dissolved Antimony (Sb)	mg/L	0.000071	8412398	0.000059	0.000024	0.000020	8412398
Dissolved Arsenic (As)	mg/L	0.00160	8412398	0.000118	0.000125	0.000020	8412398
Dissolved Barium (Ba)	mg/L	0.0547	8412398	0.0418	0.0417	0.000020	8412398
Dissolved Beryllium (Be)	mg/L	<0.000010	8412398	<0.000010	<0.000010	0.000010	8412398
Dissolved Bismuth (Bi)	mg/L	<0.0000050	8412398	<0.0000050	<0.0000050	0.0000050	8412398
Dissolved Boron (B)	mg/L	<0.010	8412398	<0.010	<0.010	0.010	8412398
Dissolved Cadmium (Cd)	mg/L	0.0000260	8416331	0.0000400	0.0000320	0.0000050	8412398
Dissolved Chromium (Cr)	mg/L	0.00014	8412398	0.00015	0.00011	0.00010	8412398
Dissolved Cobalt (Co)	mg/L	0.0000130	8412398	0.0000200	0.0000210	0.0000050	8412398
Dissolved Copper (Cu)	mg/L	0.000815	8412398	0.00114	0.000455	0.000050	8412398
Dissolved Iron (Fe)	mg/L	0.0367	8412398	0.0142	0.0413	0.0010	8412398
Dissolved Lead (Pb)	mg/L	0.000602	8412398	0.000410	0.0000490	0.0000050	8412398
Dissolved Lithium (Li)	mg/L	<0.00050	8412398	<0.00050	0.00178	0.00050	8412398
Dissolved Manganese (Mn)	mg/L	0.00274	8412398	0.00101	0.00701	0.000050	8412398
Dissolved Molybdenum (Mo)	mg/L	0.00107	8412398	0.000510	0.000313	0.000050	8412398
Dissolved Nickel (Ni)	mg/L	0.000476	8412398	0.000524	0.000810	0.000020	8412398
Dissolved Phosphorus (P)	mg/L	0.0160	8412398	0.0044	0.0039	0.0020	8412398
Dissolved Selenium (Se)	mg/L	0.000454	8412398	0.000577	0.000230	0.000040	8412398
Dissolved Silicon (Si)	mg/L	2.68	8412398	2.93	3.60	0.050	8412398
Dissolved Silver (Ag)	mg/L	<0.0000050	8412398	<0.0000050	<0.0000050	0.0000050	8412398
Dissolved Strontium (Sr)	mg/L	0.0579	8412398	0.0692	0.0598	0.000050	8412398
Dissolved Thallium (Tl)	mg/L	<0.0000020	8412398	<0.0000020	<0.0000020	0.0000020	8412398
Dissolved Tin (Sn)	mg/L	<0.00020	8412398	<0.00020	<0.00020	0.00020	8412398
Dissolved Titanium (Ti)	mg/L	0.00076	8412398	<0.00050	<0.00050	0.00050	8412398
Dissolved Uranium (U)	mg/L	0.000714	8412398	0.000521	0.00122	0.0000020	8412398
Dissolved Vanadium (V)	mg/L	<0.00020	8412398	<0.00020	<0.00020	0.00020	8412398
Dissolved Zinc (Zn)	mg/L	0.00603 (1)	8412398	0.00625	0.00419	0.00010	8412398
Dissolved Zirconium (Zr)	mg/L	<0.00010	8412398	<0.00010	<0.00010	0.00010	8412398
Dissolved Calcium (Ca)	mg/L	22.3	8408645	33.6	18.2	0.050	8408645
Dissolved Magnesium (Mg)	mg/L	4.18	8408645	3.48	5.46	0.050	8408645

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9488		PO9489	PO9490		
Sampling Date		2016/09/21		2016/09/21	2016/09/21		
COC Number		08427694		08427694	08427694		
	UNITS	W9	QC Batch	L1	W 15	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.719	8408645	0.346	0.870	0.050	8408645
Dissolved Sodium (Na)	mg/L	1.08	8408645	1.25	1.34	0.050	8408645
Dissolved Sulphur (S)	mg/L	4.7	8408645	7.6	9.0	3.0	8408645
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0123	8411463	0.0282	0.0327	0.00050	8411463
Total Antimony (Sb)	mg/L	0.000061	8411463	0.000048	0.000021	0.000020	8411463
Total Arsenic (As)	mg/L	0.00163	8411463	0.000142	0.000148	0.000020	8411463
Total Barium (Ba)	mg/L	0.0546	8411463	0.0430	0.0427	0.000020	8411463
Total Beryllium (Be)	mg/L	<0.000010	8411463	<0.000010	<0.000010	0.000010	8411463
Total Bismuth (Bi)	mg/L	<0.0000050	8411463	<0.0000050	<0.0000050	0.0000050	8411463
Total Boron (B)	mg/L	<0.010	8411463	<0.010	<0.010	0.010	8411463
Total Cadmium (Cd)	mg/L	0.0000230	8411463	0.0000410	0.0000310	0.0000050	8411463
Total Chromium (Cr)	mg/L	0.00014	8411463	0.00018	0.00016	0.00010	8411463
Total Cobalt (Co)	mg/L	0.0000160	8411463	0.0000500	0.0000460	0.0000050	8411463
Total Copper (Cu)	mg/L	0.000785	8411463	0.00132	0.000588	0.000050	8411463
Total Iron (Fe)	mg/L	0.0881	8411463	0.0640	0.119	0.0010	8411463
Total Lead (Pb)	mg/L	0.000747	8411463	0.000354	0.000177	0.0000050	8411463
Total Lithium (Li)	mg/L	<0.00050	8411463	0.00053	0.00176	0.00050	8411463
Total Manganese (Mn)	mg/L	0.0251	8411463	0.00273	0.0146	0.000050	8411463
Total Molybdenum (Mo)	mg/L	0.00110	8411463	0.000472	0.000313	0.000050	8411463
Total Nickel (Ni)	mg/L	0.000466	8411463	0.000617	0.000844	0.000020	8411463
Total Phosphorus (P)	mg/L	0.0209	8411463	0.0067	0.0085	0.0020	8411463
Total Selenium (Se)	mg/L	0.000427	8411463	0.000547	0.000250	0.000040	8411463
Total Silicon (Si)	mg/L	2.49	8411463	2.65	3.20	0.050	8411463
Total Silver (Ag)	mg/L	<0.0000050	8411463	<0.0000050	<0.0000050	0.0000050	8411463
Total Strontium (Sr)	mg/L	0.0533	8411463	0.0640	0.0487	0.000050	8411463
Total Thallium (Tl)	mg/L	<0.0000020	8411463	<0.0000020	<0.0000020	0.0000020	8411463
Total Tin (Sn)	mg/L	<0.00020	8411463	<0.00020	<0.00020	0.00020	8411463
Total Titanium (Ti)	mg/L	<0.00050	8411463	0.00128	0.00101	0.00050	8411463
Total Uranium (U)	mg/L	0.000690	8411463	0.000497	0.00122	0.0000020	8411463
Total Vanadium (V)	mg/L	<0.00020	8411463	<0.00020	<0.00020	0.00020	8411463
Total Zinc (Zn)	mg/L	0.00452	8411463	0.00576	0.00485	0.00010	8411463
Total Zirconium (Zr)	mg/L	<0.00010	8411463	<0.00010	<0.00010	0.00010	8411463
Total Calcium (Ca)	mg/L	20.8	8409610	32.1	18.0	0.050	8409610
Total Magnesium (Mg)	mg/L	4.14	8409610	3.55	4.90	0.050	8409610

RDL = Reportable Detection Limit

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Maxxam Job #: B683332
Report Date: 2016/09/30

YUKON ZINC CORPORATION
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PO9488		PO9489	PO9490		
Sampling Date		2016/09/21		2016/09/21	2016/09/21		
COC Number		08427694		08427694	08427694		
	UNITS	**W9**	**QC Batch**	**L1**	**W 15**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.692	8409610	0.311	0.754	0.050	8409610
Total Sodium (Na)	mg/L	1.05	8409610	1.21	1.18	0.050	8409610
Total Sulphur (S)	mg/L	4.6	8409610	7.4	7.5	3.0	8409610
RDL = Reportable Detection Limit							

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YUKON ZINC CORPORATION
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.3°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample PO9482-04 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PO9482-03 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.
Sample PO9484-04 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PO9484-03 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.

Sample PO9483, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PO9488, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Maxxam Job #: B683332
Report Date: 2016/09/30

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION
Sampler Initials: MS

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8409951	Turbidity	2016/09/24			98	80 - 120	<0.10	NTU	NC	20
8410061	pH	2016/09/24			102	97 - 103				
8410064	Conductivity	2016/09/24			99	80 - 120	<1.0	uS/cm		
8410065	Alkalinity (PP as CaCO3)	2016/09/24					<0.50	mg/L		
8410065	Alkalinity (Total as CaCO3)	2016/09/24	NC	80 - 120	96	80 - 120	<0.50	mg/L		
8410065	Bicarbonate (HCO3)	2016/09/24					<0.50	mg/L	0.15	20
8410065	Carbonate (CO3)	2016/09/24					<0.50	mg/L	NC	20
8410065	Hydroxide (OH)	2016/09/24					<0.50	mg/L		
8410328	Total Ammonia (N)	2016/09/26	NC	80 - 120	102	80 - 120	<0.0050	mg/L	1.9	20
8411311	Fluoride (F)	2016/09/26	101	80 - 120	100	80 - 120	0.013, RDL=0.010	mg/L	2.3	20
8411415	Total Ammonia (N)	2016/09/26	103	80 - 120	100	80 - 120	<0.0050	mg/L	6.3	20
8411463	Total Aluminum (Al)	2016/09/27	101	80 - 120	104	80 - 120	<0.00050	mg/L	5.5	20
8411463	Total Antimony (Sb)	2016/09/27	99	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
8411463	Total Arsenic (As)	2016/09/27	100	80 - 120	102	80 - 120	<0.000020	mg/L	4.6	20
8411463	Total Barium (Ba)	2016/09/27	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.47	20
8411463	Total Beryllium (Be)	2016/09/27	99	80 - 120	101	80 - 120	<0.000010	mg/L	NC	20
8411463	Total Bismuth (Bi)	2016/09/27	93	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8411463	Total Boron (B)	2016/09/27	100	80 - 120	106	80 - 120	<0.010	mg/L	NC	20
8411463	Total Cadmium (Cd)	2016/09/27	96	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8411463	Total Chromium (Cr)	2016/09/27	97	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8411463	Total Cobalt (Co)	2016/09/27	94	80 - 120	102	80 - 120	<0.0000050	mg/L	10	20
8411463	Total Copper (Cu)	2016/09/27	91	80 - 120	103	80 - 120	<0.000050	mg/L	1.5	20
8411463	Total Iron (Fe)	2016/09/27	NC	80 - 120	108	80 - 120	<0.0010	mg/L	3.0	20
8411463	Total Lead (Pb)	2016/09/27	97	80 - 120	100	80 - 120	<0.0000050	mg/L	0	20
8411463	Total Lithium (Li)	2016/09/27	99	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8411463	Total Manganese (Mn)	2016/09/27	NC	80 - 120	100	80 - 120	<0.000050	mg/L	0.53	20
8411463	Total Molybdenum (Mo)	2016/09/27	101	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8411463	Total Nickel (Ni)	2016/09/27	93	80 - 120	103	80 - 120	<0.000020	mg/L	2.2	20
8411463	Total Phosphorus (P)	2016/09/27					<0.0020	mg/L		
8411463	Total Selenium (Se)	2016/09/27	98	80 - 120	101	80 - 120	<0.000040	mg/L	NC	20
8411463	Total Silicon (Si)	2016/09/27					<0.050	mg/L	0.40	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Sampler Initials: MS

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8411463	Total Silver (Ag)	2016/09/27	85	80 - 120	107	80 - 120	<0.0000050	mg/L	NC	20
8411463	Total Strontium (Sr)	2016/09/27	NC	80 - 120	98	80 - 120	<0.000050	mg/L	0.97	20
8411463	Total Thallium (Tl)	2016/09/27	91	80 - 120	98	80 - 120	<0.0000020	mg/L	NC	20
8411463	Total Tin (Sn)	2016/09/27	97	80 - 120	105	80 - 120	<0.00020	mg/L	NC	20
8411463	Total Titanium (Ti)	2016/09/27	99	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
8411463	Total Uranium (U)	2016/09/27	98	80 - 120	98	80 - 120	<0.0000020	mg/L	0.83	20
8411463	Total Vanadium (V)	2016/09/27	97	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
8411463	Total Zinc (Zn)	2016/09/27	95	80 - 120	100	80 - 120	<0.00010	mg/L	2.3	20
8411463	Total Zirconium (Zr)	2016/09/27					<0.00010	mg/L	NC	20
8411692	Dissolved Organic Carbon (C)	2016/09/26	100	80 - 120	109	80 - 120	<0.50	mg/L	NC	20
8411776	Orthophosphate (P)	2016/09/24	101	80 - 120	108	80 - 120	<0.0010	mg/L	0.27	20
8411834	Bromide (Br)	2016/09/26	NC	78 - 120	107	80 - 120	<0.010	mg/L	0.92	20
8411851	Bromide (Br)	2016/09/26	NC	78 - 120	106	80 - 120	<0.010	mg/L	2.5	20
8412285	Acidity (pH 4.5)	2016/09/27					<0.50	mg/L	NC	20
8412285	Acidity (pH 8.3)	2016/09/27			97	80 - 120	0.75, RDL=0.50	mg/L	4.3	20
8412371	Total Suspended Solids	2016/09/28	101	80 - 120	102	80 - 120	<4.0	mg/L	NC	20
8412389	Total Dissolved Solids	2016/09/28	102	80 - 120	88	80 - 120	<10	mg/L	0	20
8412392	Total Suspended Solids	2016/09/28	105	80 - 120	102	80 - 120	<4.0	mg/L	NC	20
8412398	Dissolved Aluminum (Al)	2016/09/27	102	80 - 120	108	80 - 120	<0.00050	mg/L	0.44	20
8412398	Dissolved Antimony (Sb)	2016/09/27	94	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
8412398	Dissolved Arsenic (As)	2016/09/27	98	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8412398	Dissolved Barium (Ba)	2016/09/27	91	80 - 120	99	80 - 120	<0.000020	mg/L	0.88	20
8412398	Dissolved Beryllium (Be)	2016/09/27	96	80 - 120	100	80 - 120	<0.000010	mg/L	NC	20
8412398	Dissolved Bismuth (Bi)	2016/09/27	92	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8412398	Dissolved Boron (B)	2016/09/27	97	80 - 120	103	80 - 120	<0.010	mg/L	NC	20
8412398	Dissolved Cadmium (Cd)	2016/09/27	95	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
8412398	Dissolved Chromium (Cr)	2016/09/27	94	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
8412398	Dissolved Cobalt (Co)	2016/09/27	93	80 - 120	98	80 - 120	<0.0000050	mg/L	6.1	20
8412398	Dissolved Copper (Cu)	2016/09/27	91	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
8412398	Dissolved Iron (Fe)	2016/09/27	104	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20
8412398	Dissolved Lead (Pb)	2016/09/27	95	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8412398	Dissolved Lithium (Li)	2016/09/27	97	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8412398	Dissolved Manganese (Mn)	2016/09/27	95	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8412398	Dissolved Molybdenum (Mo)	2016/09/27	100	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
8412398	Dissolved Nickel (Ni)	2016/09/27	93	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8412398	Dissolved Phosphorus (P)	2016/09/27					0.0038, RDL=0.0020	mg/L		
8412398	Dissolved Selenium (Se)	2016/09/27	98	80 - 120	100	80 - 120	<0.000040	mg/L	NC	20
8412398	Dissolved Silicon (Si)	2016/09/27					<0.050	mg/L	1.4	20
8412398	Dissolved Silver (Ag)	2016/09/27	97	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8412398	Dissolved Strontium (Sr)	2016/09/27	NC	80 - 120	94	80 - 120	<0.000050	mg/L	1.7	20
8412398	Dissolved Thallium (Tl)	2016/09/27	95	80 - 120	99	80 - 120	<0.0000020	mg/L	NC	20
8412398	Dissolved Tin (Sn)	2016/09/27	94	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8412398	Dissolved Titanium (Ti)	2016/09/27	99	80 - 120	86	80 - 120	<0.00050	mg/L	NC	20
8412398	Dissolved Uranium (U)	2016/09/27	97	80 - 120	101	80 - 120	<0.0000020	mg/L	2.4	20
8412398	Dissolved Vanadium (V)	2016/09/27	94	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20
8412398	Dissolved Zinc (Zn)	2016/09/27	97	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8412398	Dissolved Zirconium (Zr)	2016/09/27					<0.00010	mg/L	NC	20
8412565	Total Dissolved Solids	2016/09/28	101	80 - 120	98	80 - 120	<10	mg/L	3.3	20
8412593	Dissolved Phosphorus (P)	2016/09/27	96	80 - 120	94	80 - 120	0.0021, RDL=0.0020	mg/L	NC	20
8412688	Total Phosphorus (P)	2016/09/27	91	80 - 120	98	80 - 120	<0.0020	mg/L	NC	20
8412763	Strong Acid Dissoc. Cyanide (CN)	2016/09/27	95	80 - 120	100	80 - 120	<0.00050	mg/L	5.0	20
8412926	Nitrate plus Nitrite (N)	2016/09/24	NC	80 - 120	101	80 - 120	<0.0020	mg/L	3.6	25
8412928	Nitrite (N)	2016/09/24	NC	80 - 120	99	80 - 120	<0.0020	mg/L	NC	25
8412960	Total Dissolved Solids	2016/09/28	105	80 - 120	96	80 - 120	<10	mg/L	4.4	20
8414011	Total Aluminum (Al)	2016/09/28	100	80 - 120	103	80 - 120	<0.0030	mg/L	NC	20
8414011	Total Antimony (Sb)	2016/09/28	99	80 - 120	96	80 - 120	<0.000020	mg/L	NC	20
8414011	Total Arsenic (As)	2016/09/28	107	80 - 120	102	80 - 120	<0.000020	mg/L	2.9	20
8414011	Total Barium (Ba)	2016/09/28	NC	80 - 120	99	80 - 120	<0.000050	mg/L	0.59	20
8414011	Total Beryllium (Be)	2016/09/28	98	80 - 120	94	80 - 120	<0.000010	mg/L	NC	20
8414011	Total Bismuth (Bi)	2016/09/28	95	80 - 120	100	80 - 120	<0.000010	mg/L	NC	20
8414011	Total Boron (B)	2016/09/28	NC	80 - 120	92	80 - 120	<0.010	mg/L	0.029	20
8414011	Total Cadmium (Cd)	2016/09/28	100	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Sampler Initials: MS

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8414011	Total Chromium (Cr)	2016/09/28	97	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20
8414011	Total Cobalt (Co)	2016/09/28	94	80 - 120	97	80 - 120	<0.000010	mg/L	9.0	20
8414011	Total Copper (Cu)	2016/09/28	91	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8414011	Total Iron (Fe)	2016/09/28	NC	80 - 120	103	80 - 120	<0.0050	mg/L	0.81	20
8414011	Total Lead (Pb)	2016/09/28	99	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
8414011	Total Lithium (Li)	2016/09/28	NC	80 - 120	87	80 - 120	<0.00050	mg/L	0.61	20
8414011	Total Manganese (Mn)	2016/09/28	NC	80 - 120	100	80 - 120	<0.00010	mg/L	0.84	20
8414011	Total Molybdenum (Mo)	2016/09/28	NC	80 - 120	101	80 - 120	<0.000050	mg/L	2.8	20
8414011	Total Nickel (Ni)	2016/09/28	92	80 - 120	97	80 - 120	<0.00010	mg/L	0.20	20
8414011	Total Selenium (Se)	2016/09/28	106	80 - 120	104	80 - 120	<0.000040	mg/L	NC	20
8414011	Total Silicon (Si)	2016/09/28					<0.050	mg/L	3.4	20
8414011	Total Silver (Ag)	2016/09/28	105	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8414011	Total Strontium (Sr)	2016/09/28	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.59	20
8414011	Total Thallium (Tl)	2016/09/28	92	80 - 120	87	80 - 120	<0.0000020	mg/L	NC	20
8414011	Total Tin (Sn)	2016/09/28	95	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20
8414011	Total Titanium (Ti)	2016/09/28	102	80 - 120	102	80 - 120	<0.0020	mg/L	NC	20
8414011	Total Uranium (U)	2016/09/28	102	80 - 120	100	80 - 120	<0.0000050	mg/L	2.0	20
8414011	Total Vanadium (V)	2016/09/28	98	80 - 120	95	80 - 120	<0.00020	mg/L	NC	20
8414011	Total Zinc (Zn)	2016/09/28	101	80 - 120	110	80 - 120	<0.0010	mg/L	NC	20
8414011	Total Zirconium (Zr)	2016/09/28					<0.00010	mg/L	NC	20
8415754	Dissolved Chloride (Cl)	2016/09/29	98	80 - 120	100	80 - 120	<1.0	mg/L	NC	20
8415763	Dissolved Sulphate (SO4)	2016/09/29	104	80 - 120	99	80 - 120	<1.0	mg/L	NC	20
8416331	Dissolved Cadmium (Cd)	2016/09/30			100	80 - 120	<0.0000050	mg/L		
8416331	Dissolved Lead (Pb)	2016/09/30			104	80 - 120	<0.0000050	mg/L		
8416331	Dissolved Zinc (Zn)	2016/09/30			103	80 - 120	<0.00010	mg/L		
8417628	Orthophosphate (P)	2016/09/30	96	80 - 120	91	80 - 120	<0.0010	mg/L	NC	20
8417646	Dissolved Phosphorus (P)	2016/09/30	NC	80 - 120	102	80 - 120	<0.0020	mg/L	1.7	20

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B683332
Report Date: 2016/09/30

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION
Sampler Initials: MS

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8417650	Total Phosphorus (P)	2016/09/30	94	80 - 120	102	80 - 120	<0.0020	mg/L	NC	20

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

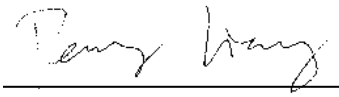
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B683332
Report Date: 2016/09/30

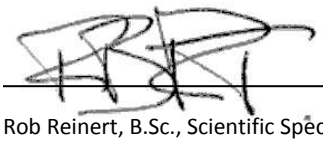
YUKON ZINC CORPORATION
Sampler Initials: MS

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 Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

CHAIN OF CUSTODY

CG

08427694

BBY FCD-00077/05

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name:	Quotation #:	☑ Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 West Georgia Street	Address:	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC: V6E 2Y3	PC:	Site Location:	☐ Same Day ☐ 2 Days
Phone: 604-684-5474	Phone:	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By:	Date Required:

Regulatory Criteria	Special Instructions
☐ BC CSR Soil ☐ BC CSR Water	☐ Return Cooler
☐ CCME (Specify) ☐ Other (Specify)	☐ Ship Sample Bottles (Please Specify)
☐ Drinking Water ☐ BC Water Quality	

Rush Confirmation #:

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

LABORATORY USE ONLY: CUSTODY SEAL Y / N (0); COOLER TEMPERATURES: Present / Intact: VA | 1.2 | 1.1

COOLING MEDIA PRESENT: Y / N (0)

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	BTEX/VPH	EPH	PAH	CCME-PHC	Dissolved Metals (Preserved? / Filtered?)	Dissolved Mercury (Preserved? / Filtered?)	Total Metals (Field Preserved?)	Total Mercury (Field Preserved?)	Chloride (Fluoride)	TSS (Sulphate)	pH (COD)	Nitrite (Conductivity)	Nitrate (Alkalinity)	Package A (Ammonia)	Total Phosphorus H2SO4	DOC Filtered H2SO4	Total Cyanide	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COMMENTS
	Bottle									50 mL Falcon tube		50 mL Falcon tube							1 L plastic + 120 mL plastic						
	Preservative									HNO3		HNO3							-						
	Filtered									✓		✓							✓						
1	Bioreactor - inlet				Water					x		x							x x				4		
2	Bioreactor - outlet				Water					x		x							x x				4		
3	TI				"					X		X						XX	XX	X		X	5		
4	MW05-5A				"					X		·						X	XX	X			5		
5	MW05-5B				"					X		·						X	XX	X			5		
6	MW06-11S				"					X		·						X	XX	X			5		
7	W9				"					X		X						X	XX	X	X		7		
8	L1				"					X		X						X	XX	X	X		7		
9	W15				"					X		X						X	XX	X			6		
10																									
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RECEIVED IN WHITEHORSE
BY: Shyrno @ 1030
2016-09-22
TEMP: 4 / 3 / 4

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
			Laurel Beaulieu	2016/09/23	13:50	

B683332_COC

Your C.O.C. #: 08428352

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/10/20
Report #: R2286499
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B690400
Received: 2016/10/12, 12:40

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	9	N/A	2016/10/15	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	9	2016/10/14	2016/10/15	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	9	N/A	2016/10/17	AB SOP-00020	SM 22 4500-Cl G m
Carbon (DOC) - field filtered/preserved (2)	2	N/A	2016/10/17	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	9	N/A	2016/10/15	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	9	N/A	2016/10/19	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	1	N/A	2016/10/17	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3)	8	N/A	2016/10/19	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	8	N/A	2016/10/19	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	1	N/A	2016/10/20	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	9	N/A	2016/10/17	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	8	N/A	2016/10/19	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2016/10/20	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	9	N/A	2016/10/18	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	1	2016/10/14	2016/10/14	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2016/10/17	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	8	N/A	2016/10/19	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	8	N/A	2016/10/19	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	9	N/A	2016/10/14	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	9	N/A	2016/10/14	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	9	N/A	2016/10/14	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	9	N/A	2016/10/15	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	9	N/A	2016/10/20	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	9	N/A	2016/10/15	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	9	N/A	2016/10/14	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry (1)	9	N/A	2016/10/17	AB SOP-00018	SM 22 4500-SO4 E m
Total Dissolved Solids (Filt. Residue)	9	2016/10/14	2016/10/15	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	2	2016/10/14	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	5	2016/10/14	2016/10/14	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	2	2016/10/20	2016/10/20	BBY6SOP-00013	SM 22 4500-P E m

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: 08428352

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/10/20
Report #: R2286499
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B690400
Received: 2016/10/12, 12:40

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Phosphorus - Low Level	8	N/A	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - Low Level	1	N/A	2016/10/20	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	9	2016/10/17	2016/10/18	BBY6SOP-00034	SM 22 2540 D
Turbidity	9	N/A	2016/10/13	BBY6SOP-00027	SM 22 2130 B m

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 Maxxam Edmonton Environmental
(2) DOC present in the sample should be considered as non-purgeable DOC.
(3) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT4009		PT4010		PT4011		PT4012		
Sampling Date		2016/10/11 08:24		2016/10/11 13:30		2016/10/10 09:20		2016/10/10 09:45		
COC Number		08428352		08428352		08428352		08428352		
	UNITS	W22	QC Batch	W31	QC Batch	W71	QC Batch	W72	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.070	8438903	0.026	8438903	0.690	8438903	0.160	0.010	8438903
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	140	8431584	70.8	8431584	358	8431584	210	0.50	8431584
Nitrate (N)	mg/L	<0.20	8431629	<0.20	8431629	<0.20	8431629	0.56	0.20	8431629
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	132	8431585	73.5	8431585	365	8431585	210	0.50	8431585
Dissolved Organic Carbon (C)	mg/L		8436130	4.66	8436130		8436130		0.50	8436130
Acidity (pH 4.5)	mg/L	<0.50	8436278	<0.50	8436278	<0.50	8436278	<0.50	0.50	8436278
Alkalinity (Total as CaCO3)	mg/L	102	8433525	68.1	8433525	265	8433525	157	0.50	8433525
Acidity (pH 8.3)	mg/L	<0.50	8436278	<0.50	8436278	<0.50	8436278	<0.50	0.50	8436278
Alkalinity (PP as CaCO3)	mg/L	<0.50	8433525	<0.50	8433525	2.58	8433525	<0.50	0.50	8433525
Bicarbonate (HCO3)	mg/L	124	8433525	83.0	8433525	317	8433525	192	0.50	8433525
Carbonate (CO3)	mg/L	<0.50	8433525	<0.50	8433525	3.10	8433525	<0.50	0.50	8433525
Hydroxide (OH)	mg/L	<0.50	8433525	<0.50	8433525	<0.50	8433525	<0.50	0.50	8433525
Anions										
Orthophosphate (P)	mg/L	<0.0010	8433833	<0.0010	8433833	0.010 (1)	8433833	0.013 (1)	0.0010	8433833
Dissolved Sulphate (SO4)	mg/L	36	8435376	11	8435376	110	8435376	54	1.0	8435376
Dissolved Chloride (Cl)	mg/L	<1.0	8435367	<1.0	8435367	<1.0	8435367	<1.0	1.0	8435367
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0043 (2)	8441081	0.0034	8438904	0.0174 (1)	8433884	0.0201 (2)	0.0020	8441081
Total Ammonia (N)	mg/L	0.043	8434192	0.015	8434192	0.052	8434192	0.064	0.0050	8434190
Nitrate plus Nitrite (N)	mg/L	<0.20 (3)	8434898	<0.20 (3)	8434898	<0.20 (4)	8434898	0.56 (4)	0.20	8434898
Nitrite (N)	mg/L	<0.20 (3)	8434900	<0.20 (3)	8434900	<0.20 (4)	8434900	<0.20 (4)	0.20	8434900
Total Phosphorus (P)	mg/L	0.0052	8441080	0.0070	8438861	0.0188	8438861	0.0260	0.0020	8438861
Physical Properties										
Conductivity	uS/cm	262	8433523	153	8433523	657	8433523	394	1.0	8433523
pH	pH	8.17	8433514	8.04	8433514	8.34	8433514	8.19		8433514

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
(3) RDL raised due to sample matrix interference.
(4) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT4009		PT4010		PT4011		PT4012		
Sampling Date		2016/10/11 08:24		2016/10/11 13:30		2016/10/10 09:20		2016/10/10 09:45		
COC Number		08428352		08428352		08428352		08428352		
	UNITS	W22	QC Batch	W31	QC Batch	W71	QC Batch	W72	RDL	QC Batch
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8435669	<4.0	8435669	<4.0	8435661	<4.0	4.0	8435661
Total Dissolved Solids	mg/L	148	8433442	78	8433442	402	8433442	226	10	8433442
Turbidity	NTU	1.35	8432715	0.12	8432715	0.28	8432715	0.90	0.10	8432715
RDL = Reportable Detection Limit										

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT4013		PT4014		PT4015		PT4016		
Sampling Date		2016/10/10 10:11		2016/10/11 08:47		2016/10/11 13:11		2016/10/11 10:40		
COC Number		08428352		08428352		08428352		08428352		
	UNITS	W73	QC Batch	W80	QC Batch	W82	QC Batch	W15	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.047	8438903	0.045	8438903	0.098	8438903	0.027	0.010	8438903
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	117	8431584	85.7	8431584	139	8431584	61.2	0.50	8431584
Nitrate (N)	mg/L	0.24	8431629	0.41	8431629	0.36	8431629	0.36	0.20	8431629
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	119	8431585	87.9	8431585	142	8431585	62.5	0.50	8431585
Dissolved Organic Carbon (C)	mg/L		8436130		8436130	4.24	8436130		0.50	8436130
Acidity (pH 4.5)	mg/L	<0.50	8436278	<0.50	8436285	<0.50	8436278	<0.50	0.50	8436278
Alkalinity (Total as CaCO3)	mg/L	99.4	8433525	73.8	8433525	97.1	8433525	50.3	0.50	8434652
Acidity (pH 8.3)	mg/L	<0.50	8436278	<0.50	8436285	<0.50	8436278	<0.50	0.50	8436278
Alkalinity (PP as CaCO3)	mg/L	<0.50	8433525	<0.50	8433525	<0.50	8433525	<0.50	0.50	8434652
Bicarbonate (HCO3)	mg/L	121	8433525	90.0	8433525	118	8433525	61.3	0.50	8434652
Carbonate (CO3)	mg/L	<0.50	8433525	<0.50	8433525	<0.50	8433525	<0.50	0.50	8434652
Hydroxide (OH)	mg/L	<0.50	8433525	<0.50	8433525	<0.50	8433525	<0.50	0.50	8434652
Anions										
Orthophosphate (P)	mg/L	0.0012 (1)	8433833	0.0019	8433833	0.0065	8433833	<0.0010	0.0010	8433833
Dissolved Sulphate (SO4)	mg/L	25	8435376	22	8435376	46	8435376	15	1.0	8435376
Dissolved Chloride (Cl)	mg/L	<1.0	8435367	<1.0	8435367	<1.0	8435367	<1.0	1.0	8435367
Nutrients										
Dissolved Phosphorus (P)	mg/L	0.0047 (1)	8433884	0.0050	8433884	0.0181	8438904	0.0029	0.0020	8433884
Total Ammonia (N)	mg/L	0.049	8434192	0.038	8434192	0.028	8434192	0.017	0.0050	8434190
Nitrate plus Nitrite (N)	mg/L	0.24 (2)	8434898	0.41 (3)	8434898	0.36 (3)	8434898	0.36 (3)	0.20	8434898
Nitrite (N)	mg/L	<0.20 (2)	8434900	<0.20 (3)	8434900	<0.20 (3)	8434900	<0.20 (3)	0.20	8434900
Total Phosphorus (P)	mg/L	0.0053	8438861	0.0081	8438861	0.0192	8438861	0.0040	0.0020	8438861
Physical Properties										
Conductivity	uS/cm	234	8433523	185	8433523	285	8433523	135	1.0	8434662
pH	pH	8.13	8433514	8.04	8433514	8.09	8433514	7.70		8434665
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8435661	<4.0	8435669	<4.0	8435669	<4.0	4.0	8435669

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.
(3) RDL raised due to sample matrix interference.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT4013		PT4014		PT4015		PT4016		
Sampling Date		2016/10/10 10:11		2016/10/11 08:47		2016/10/11 13:11		2016/10/11 10:40		
COC Number		08428352		08428352		08428352		08428352		
	UNITS	**W73**	**QC Batch**	**W80**	**QC Batch**	**W82**	**QC Batch**	**W15**	**RDL**	**QC Batch**
Total Dissolved Solids	mg/L	118	8433442	90	8433442	160	8433442	66	10	8433442
Turbidity	NTU	0.46	8432715	0.26	8432715	0.99	8432715	0.15	0.10	8432715
RDL = Reportable Detection Limit										

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT4017		
Sampling Date		2016/10/10 10:20		
COC Number		08428352		
	UNITS	W81	RDL	QC Batch
Misc. Inorganics				
Fluoride (F)	mg/L	0.030	0.010	8438903
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	70.7	0.50	8431584
Nitrate (N)	mg/L	0.42	0.20	8431629
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	72.3	0.50	8439582
Acidity (pH 4.5)	mg/L	<0.50	0.50	8436278
Alkalinity (Total as CaCO3)	mg/L	64.8	0.50	8433525
Acidity (pH 8.3)	mg/L	<0.50	0.50	8436278
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8433525
Bicarbonate (HCO3)	mg/L	79.1	0.50	8433525
Carbonate (CO3)	mg/L	<0.50	0.50	8433525
Hydroxide (OH)	mg/L	<0.50	0.50	8433525
Anions				
Orthophosphate (P)	mg/L	0.0022 (1)	0.0010	8433833
Dissolved Sulphate (SO4)	mg/L	14	1.0	8435376
Dissolved Chloride (Cl)	mg/L	<1.0	1.0	8435367
Nutrients				
Dissolved Phosphorus (P)	mg/L	0.0082 (1)	0.0020	8433884
Total Ammonia (N)	mg/L	0.015	0.0050	8434192
Nitrate plus Nitrite (N)	mg/L	0.42 (2)	0.20	8434898
Nitrite (N)	mg/L	<0.20 (2)	0.20	8434900
Total Phosphorus (P)	mg/L	0.0134	0.0020	8438861
Physical Properties				
Conductivity	uS/cm	156	1.0	8433523
pH	pH	8.02		8433514
Physical Properties				
Total Suspended Solids	mg/L	4.0	4.0	8435661
Total Dissolved Solids	mg/L	72	10	8433442

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past recommended hold time.
(2) RDL raised due to sample matrix interference. Sample analysed past recommended hold time.

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YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT4017		
Sampling Date		2016/10/10 10:20		
COC Number		08428352		
	UNITS	**W81**	**RDL**	**QC Batch**
Turbidity	NTU	1.33	0.10	8432715
RDL = Reportable Detection Limit				

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Maxxam Job #: B690400
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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4009			PT4010		PT4011		
Sampling Date		2016/10/11 08:24			2016/10/11 13:30		2016/10/10 09:20		
COC Number		08428352			08428352		08428352		
	UNITS	W22	RDL	QC Batch	W31	QC Batch	W71	RDL	QC Batch
ANIONS									
Bromide (Br)	mg/L	<0.010	0.010	8434124	<0.010	8434124	<0.010	0.010	8434124
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	mg/L	0.00362	0.00050	8437145	0.00854 (1)	8440154	0.00281	0.00050	8437145
Dissolved Antimony (Sb)	mg/L	0.000069	0.000020	8437145	0.000033	8437145	0.000495	0.000020	8437145
Dissolved Arsenic (As)	mg/L	0.000192	0.000020	8437145	0.000140	8437145	0.000300	0.000020	8437145
Dissolved Barium (Ba)	mg/L	0.0656	0.000020	8437145	0.0139	8437145	0.0520	0.000020	8437145
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8437145	<0.000010	8437145	<0.000010	0.000010	8437145
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8437145	<0.0000050	8437145	<0.0000050	0.0000050	8437145
Dissolved Boron (B)	mg/L	<0.010	0.010	8437145	<0.010	8437145	<0.010	0.010	8437145
Dissolved Cadmium (Cd)	mg/L	0.0000090	0.0000050	8437145	0.0000160	8437145	0.00314	0.0000050	8437145
Dissolved Chromium (Cr)	mg/L	0.00017	0.00010	8437145	0.00011	8437145	<0.00010	0.00010	8437145
Dissolved Cobalt (Co)	mg/L	0.0000180	0.0000050	8437145	0.0000220	8437145	0.0000320	0.0000050	8437145
Dissolved Copper (Cu)	mg/L	0.000436	0.000050	8437145	0.000913	8437145	0.000581	0.000050	8437145
Dissolved Iron (Fe)	mg/L	0.0194	0.0010	8437145	0.0079 (1)	8440154	0.0115	0.0010	8437145
Dissolved Lead (Pb)	mg/L	0.0000310	0.0000050	8437145	0.000855 (1)	8440154	0.0000440 (1)	0.0000050	8437145
Dissolved Lithium (Li)	mg/L	0.00170	0.00050	8437145	<0.00050	8437145	0.00250	0.00050	8437145
Dissolved Manganese (Mn)	mg/L	0.00300	0.000050	8437145	0.000479 (1)	8440154	0.00337	0.000050	8437145
Dissolved Molybdenum (Mo)	mg/L	0.000626	0.000050	8437145	0.000383	8437145	0.00514	0.000050	8437145
Dissolved Nickel (Ni)	mg/L	0.000803	0.000020	8437145	0.000088	8437145	0.0292	0.000020	8437145
Dissolved Phosphorus (P)	mg/L	<0.0020	0.0020	8437145	0.0020	8437145	0.0128	0.0020	8437145
Dissolved Selenium (Se)	mg/L	0.000551	0.000040	8437145	0.000309	8437145	0.00535	0.000040	8437145
Dissolved Silicon (Si)	mg/L	4.00	0.050	8437145	2.73	8437145	3.80	0.050	8437145
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8437145	<0.0000050	8437145	<0.0000050	0.0000050	8437145
Dissolved Strontium (Sr)	mg/L	0.140	0.000050	8437145	0.0178	8437145	0.263	0.000050	8437145
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000020	8437145	<0.0000020	8437145	<0.0000020	0.0000020	8437145
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8437145	<0.00020	8437145	<0.00020	0.00020	8437145
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8437145	<0.00050	8437145	<0.00050	0.00050	8437145
Dissolved Uranium (U)	mg/L	0.00151	0.0000020	8437145	0.0000230	8437145	0.0117	0.0000020	8437145
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8437145	0.00035	8437145	0.00021	0.00020	8437145
Dissolved Zinc (Zn)	mg/L	0.00112	0.00010	8437145	0.00259 (1)	8437145	0.578	0.00010	8437145
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8437145	<0.00010	8437145	<0.00010	0.00010	8437145
Dissolved Calcium (Ca)	mg/L	35.1	0.050	8431904	26.9	8431904	99.9	0.050	8431904
Dissolved Magnesium (Mg)	mg/L	10.7	0.050	8431904	1.55	8431904	28.1	0.050	8431904

RDL = Reportable Detection Limit

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

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4009			PT4010		PT4011		
Sampling Date		2016/10/11 08:24			2016/10/11 13:30		2016/10/10 09:20		
COC Number		08428352			08428352		08428352		
	UNITS	W22	RDL	QC Batch	W31	QC Batch	W71	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.784	0.050	8431904	0.374	8431904	0.652	0.050	8431904
Dissolved Sodium (Na)	mg/L	1.77	0.050	8431904	1.22	8431904	0.846	0.050	8431904
Dissolved Sulphur (S)	mg/L	10.0	3.0	8431904	<3.0	8431904	31.8	3.0	8431904
Total Metals by ICPMS									
Total Aluminum (Al)	mg/L	0.0719	0.0030	8433768	0.00655	8437184	0.00639	0.00050	8437184
Total Antimony (Sb)	mg/L	0.000090	0.000020	8433768	<0.000020	8437184	0.000457	0.000020	8437184
Total Arsenic (As)	mg/L	0.000415	0.000020	8433768	0.000136	8437184	0.000300	0.000020	8437184
Total Barium (Ba)	mg/L	0.0779	0.000050	8433768	0.0133	8437184	0.0499	0.000020	8437184
Total Beryllium (Be)	mg/L	0.000015	0.000010	8433768	<0.000010	8437184	<0.000010	0.000010	8437184
Total Bismuth (Bi)	mg/L	<0.000010	0.000010	8433768	<0.0000050	8437184	<0.0000050	0.0000050	8437184
Total Boron (B)	mg/L	<0.010	0.010	8433768	<0.010	8437184	<0.010	0.010	8437184
Total Cadmium (Cd)	mg/L	0.0000650	0.0000050	8433768	0.0000090	8437184	0.00323	0.0000050	8437184
Total Chromium (Cr)	mg/L	0.00040	0.00010	8433768	<0.00010	8437184	<0.00010	0.00010	8437184
Total Cobalt (Co)	mg/L	0.000170	0.000010	8433768	0.0000200	8437184	0.0000490	0.0000050	8437184
Total Copper (Cu)	mg/L	0.00138	0.00010	8433768	0.000784	8437184	0.000534	0.000050	8437184
Total Iron (Fe)	mg/L	0.297	0.0050	8433768	0.0032	8437184	0.0258	0.0010	8437184
Total Lead (Pb)	mg/L	0.000803	0.000020	8433768	0.0000820	8437184	0.0000170	0.0000050	8437184
Total Lithium (Li)	mg/L	0.00200	0.00050	8433768	<0.00050	8437184	0.00271	0.00050	8437184
Total Manganese (Mn)	mg/L	0.0504	0.00010	8433768	0.000162	8437184	0.00423	0.000050	8437184
Total Molybdenum (Mo)	mg/L	0.000646	0.000050	8433768	0.000345	8437184	0.00528	0.000050	8437184
Total Nickel (Ni)	mg/L	0.00179	0.00010	8433768	0.000067	8437184	0.0290	0.000020	8437184
Total Phosphorus (P)	mg/L				<0.0020	8437184	0.0145	0.0020	8437184
Total Selenium (Se)	mg/L	0.000695	0.000040	8433768	0.000307	8437184	0.00552	0.000040	8437184
Total Silicon (Si)	mg/L	4.41	0.050	8433768	2.85	8437184	4.01	0.050	8437184
Total Silver (Ag)	mg/L	<0.000010	0.000010	8433768	<0.0000050	8437184	<0.0000050	0.0000050	8437184
Total Strontium (Sr)	mg/L	0.147	0.000050	8433768	0.0173	8437184	0.264	0.000050	8437184
Total Thallium (Tl)	mg/L	0.0000020	0.0000020	8433768	<0.0000020	8437184	0.0000030	0.0000020	8437184
Total Tin (Sn)	mg/L	<0.00020	0.00020	8433768	<0.00020	8437184	<0.00020	0.00020	8437184
Total Titanium (Ti)	mg/L	0.0021	0.0020	8433768	<0.00050	8437184	<0.00050	0.00050	8437184
Total Uranium (U)	mg/L	0.00161	0.0000050	8433768	0.0000230	8437184	0.0117	0.0000020	8437184
Total Vanadium (V)	mg/L	0.00030	0.00020	8433768	0.00033	8437184	0.00022	0.00020	8437184
Total Zinc (Zn)	mg/L	0.0075	0.0010	8433768	0.00100	8437184	0.576	0.00010	8437184
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	8433768	<0.00010	8437184	<0.00010	0.00010	8437184
Total Calcium (Ca)	mg/L	37.1	0.25	8431906	25.9	8431906	98.2	0.050	8431906
Total Magnesium (Mg)	mg/L	11.5	0.25	8431906	1.51	8431906	27.3	0.050	8431906
RDL = Reportable Detection Limit									

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YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4009			PT4010		PT4011		
Sampling Date		2016/10/11 08:24			2016/10/11 13:30		2016/10/10 09:20		
COC Number		08428352			08428352		08428352		
	UNITS	**W22**	**RDL**	**QC Batch**	**W31**	**QC Batch**	**W71**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.83	0.25	8431906	0.368	8431906	0.650	0.050	8431906
Total Sodium (Na)	mg/L	1.84	0.25	8431906	1.15	8431906	0.801	0.050	8431906
Total Sulphur (S)	mg/L	11.4	3.0	8431906	3.0	8431906	33.9	3.0	8431906
RDL = Reportable Detection Limit									

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4012	PT4013	PT4014	PT4015	PT4016		
Sampling Date		2016/10/10 09:45	2016/10/10 10:11	2016/10/11 08:47	2016/10/11 13:11	2016/10/11 10:40		
COC Number		08428352	08428352	08428352	08428352	08428352		
	UNITS	W72	W73	W80	W82	W15	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8434124
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00597	0.00267	0.00323	0.00715	0.00473	0.00050	8437145
Dissolved Antimony (Sb)	mg/L	0.000177	0.000094	0.000034	0.000214	0.000027	0.000020	8437145
Dissolved Arsenic (As)	mg/L	0.00146	0.000209	0.000162	0.000130	0.000096	0.000020	8437145
Dissolved Barium (Ba)	mg/L	0.0793	0.0638	0.0654	0.143	0.0181	0.000020	8437145
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8437145
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8437145
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8437145
Dissolved Cadmium (Cd)	mg/L	0.000221	0.0000060	0.0000120	0.000956	0.0000090	0.0000050	8437145
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00028	<0.00010	<0.00010	0.00014	0.00010	8437145
Dissolved Cobalt (Co)	mg/L	0.0000520	0.0000130	0.0000400	0.000214	0.0000130	0.0000050	8437145
Dissolved Copper (Cu)	mg/L	0.000708	0.000775	0.000393	0.000850	0.000521	0.000050	8437145
Dissolved Iron (Fe)	mg/L	0.0911	0.0343	0.0577	0.0544	0.0051	0.0010	8437145
Dissolved Lead (Pb)	mg/L	0.000203 (1)	0.0000190	0.0000380	0.0000740	0.000303 (1)	0.0000050	8437145
Dissolved Lithium (Li)	mg/L	0.00196	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8437145
Dissolved Manganese (Mn)	mg/L	0.0940	0.00524	0.0334	0.0789	0.000263	0.000050	8437145
Dissolved Molybdenum (Mo)	mg/L	0.00275	0.000465	0.000398	0.000312	0.000249	0.000050	8437145
Dissolved Nickel (Ni)	mg/L	0.00385	0.000574	0.000202	0.00736	0.000101	0.000020	8437145
Dissolved Phosphorus (P)	mg/L	0.0143	<0.0020	0.0031	0.0068	<0.0020	0.0020	8437145
Dissolved Selenium (Se)	mg/L	0.00124	0.000665	0.000848	0.00274	0.000335	0.000040	8437145
Dissolved Silicon (Si)	mg/L	4.11	4.13	3.13	3.15	2.64	0.050	8437145
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8437145
Dissolved Strontium (Sr)	mg/L	0.242	0.113	0.0531	0.123	0.0355	0.000050	8437145
Dissolved Thallium (Tl)	mg/L	<0.0000020	<0.0000020	<0.0000020	0.0000020	<0.0000020	0.0000020	8437145
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8437145
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	8437145
Dissolved Uranium (U)	mg/L	0.00138	0.000462	0.000491	0.000367	0.000111	0.0000020	8437145
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8437145
Dissolved Zinc (Zn)	mg/L	0.0428	0.00062	0.00099	0.148	0.00214 (1)	0.00010	8437145
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8437145
Dissolved Calcium (Ca)	mg/L	55.2	33.4	27.2	49.8	22.6	0.050	8431904
Dissolved Magnesium (Mg)	mg/L	17.6	8.66	4.84	4.23	1.47	0.050	8431904

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4012	PT4013	PT4014	PT4015	PT4016		
Sampling Date		2016/10/10 09:45	2016/10/10 10:11	2016/10/11 08:47	2016/10/11 13:11	2016/10/11 10:40		
COC Number		08428352	08428352	08428352	08428352	08428352		
	UNITS	W72	W73	W80	W82	W15	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.625	0.250	0.524	1.14	0.344	0.050	8431904
Dissolved Sodium (Na)	mg/L	1.76	1.15	1.11	1.30	0.979	0.050	8431904
Dissolved Sulphur (S)	mg/L	15.8	6.7	5.8	14.0	4.1	3.0	8431904
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0184	0.00534	0.00862	0.0305	0.0132	0.00050	8437184
Total Antimony (Sb)	mg/L	0.000172	0.000094	0.000046	0.000222	0.000022	0.000020	8437184
Total Arsenic (As)	mg/L	0.00203	0.000229	0.000189	0.000179	0.000092	0.000020	8437184
Total Barium (Ba)	mg/L	0.0791	0.0626	0.0649	0.149	0.0180	0.000020	8437184
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	8437184
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8437184
Total Boron (B)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8437184
Total Cadmium (Cd)	mg/L	0.000307	0.0000100	0.0000210	0.00145	0.0000060	0.0000050	8437184
Total Chromium (Cr)	mg/L	0.00012	0.00029	<0.00010	<0.00010	0.00014	0.00010	8437184
Total Cobalt (Co)	mg/L	0.0000890	0.0000190	0.0000470	0.000441	0.0000250	0.0000050	8437184
Total Copper (Cu)	mg/L	0.000790	0.000801	0.000464	0.00185	0.000468	0.000050	8437184
Total Iron (Fe)	mg/L	0.139	0.0508	0.0831	0.239	0.0195	0.0010	8437184
Total Lead (Pb)	mg/L	0.0000690	0.0000750	0.0000340	0.000579	0.0000370	0.0000050	8437184
Total Lithium (Li)	mg/L	0.00198	<0.00050	<0.00050	0.00055	<0.00050	0.00050	8437184
Total Manganese (Mn)	mg/L	0.132	0.00810	0.0356	0.127	0.000773	0.000050	8437184
Total Molybdenum (Mo)	mg/L	0.00268	0.000466	0.000387	0.000328	0.000247	0.000050	8437184
Total Nickel (Ni)	mg/L	0.00495	0.000623	0.000237	0.00804	0.000130	0.000020	8437184
Total Phosphorus (P)	mg/L	0.0179	0.0030	0.0049	0.0169	0.0020	0.0020	8437184
Total Selenium (Se)	mg/L	0.00116	0.000683	0.000891	0.00288	0.000311	0.000040	8437184
Total Silicon (Si)	mg/L	4.30	4.15	3.22	3.27	2.74	0.050	8437184
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	8437184
Total Strontium (Sr)	mg/L	0.311	0.113	0.0540	0.126	0.0362	0.000050	8437184
Total Thallium (Tl)	mg/L	0.0000020	<0.0000020	<0.0000020	0.0000050	<0.0000020	0.0000020	8437184
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8437184
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00079	<0.00050	0.00050	8437184
Total Uranium (U)	mg/L	0.00138	0.000478	0.000499	0.000378	0.000113	0.0000020	8437184
Total Vanadium (V)	mg/L	0.00024	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	8437184
Total Zinc (Zn)	mg/L	0.0548	0.00079	0.00149	0.166	0.00056	0.00010	8437184
Total Zirconium (Zr)	mg/L	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	8437184
Total Calcium (Ca)	mg/L	46.7	32.5	26.5	48.5	22.1	0.050	8431906
Total Magnesium (Mg)	mg/L	22.7	8.67	4.74	4.25	1.46	0.050	8431906

RDL = Reportable Detection Limit

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4012	PT4013	PT4014	PT4015	PT4016		
Sampling Date		2016/10/10 09:45	2016/10/10 10:11	2016/10/11 08:47	2016/10/11 13:11	2016/10/11 10:40		
COC Number		08428352	08428352	08428352	08428352	08428352		
	UNITS	**W72**	**W73**	**W80**	**W82**	**W15**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.808	0.249	0.529	1.15	0.354	0.050	8431906
Total Sodium (Na)	mg/L	2.21	1.11	1.04	1.24	0.962	0.050	8431906
Total Sulphur (S)	mg/L	22.2	6.8	6.1	14.2	4.5	3.0	8431906
RDL = Reportable Detection Limit								

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4017		
Sampling Date		2016/10/10 10:20		
COC Number		08428352		
	UNITS	W81	RDL	QC Batch
ANIONS				
Bromide (Br)	mg/L	<0.010	0.010	8434124
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.00592	0.00050	8437145
Dissolved Antimony (Sb)	mg/L	0.000034	0.000020	8437145
Dissolved Arsenic (As)	mg/L	0.000120	0.000020	8437145
Dissolved Barium (Ba)	mg/L	0.0509	0.000020	8437145
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8437145
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8437145
Dissolved Boron (B)	mg/L	<0.010	0.010	8437145
Dissolved Cadmium (Cd)	mg/L	0.0000440	0.0000050	8437145
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	8437145
Dissolved Cobalt (Co)	mg/L	0.0000260	0.0000050	8437145
Dissolved Copper (Cu)	mg/L	0.000466	0.000050	8437145
Dissolved Iron (Fe)	mg/L	0.0261	0.0010	8437145
Dissolved Lead (Pb)	mg/L	0.000150 (1)	0.0000050	8437145
Dissolved Lithium (Li)	mg/L	<0.00050	0.00050	8437145
Dissolved Manganese (Mn)	mg/L	0.0126	0.000050	8437145
Dissolved Molybdenum (Mo)	mg/L	0.000313	0.000050	8437145
Dissolved Nickel (Ni)	mg/L	0.000123	0.000020	8437145
Dissolved Phosphorus (P)	mg/L	0.0035	0.0020	8437145
Dissolved Selenium (Se)	mg/L	0.000646	0.000040	8440154
Dissolved Silicon (Si)	mg/L	3.14	0.050	8437145
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8437145
Dissolved Strontium (Sr)	mg/L	0.0435	0.000050	8437145
Dissolved Thallium (Tl)	mg/L	<0.0000020	0.0000020	8437145
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8437145
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8437145
Dissolved Uranium (U)	mg/L	0.000245	0.0000020	8437145
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8437145
Dissolved Zinc (Zn)	mg/L	0.00705 (1)	0.00010	8437145
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8437145
Dissolved Calcium (Ca)	mg/L	25.1	0.050	8438295
Dissolved Magnesium (Mg)	mg/L	2.38	0.050	8438295

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4017		
Sampling Date		2016/10/10 10:20		
COC Number		08428352		
	UNITS	W81	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.454	0.050	8438295
Dissolved Sodium (Na)	mg/L	1.06	0.050	8438295
Dissolved Sulphur (S)	mg/L	4.4	3.0	8438295
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.0841	0.00050	8437184
Total Antimony (Sb)	mg/L	0.000033	0.000020	8437184
Total Arsenic (As)	mg/L	0.000153	0.000020	8437184
Total Barium (Ba)	mg/L	0.0507	0.000020	8437184
Total Beryllium (Be)	mg/L	<0.000010	0.000010	8437184
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8437184
Total Boron (B)	mg/L	<0.010	0.010	8437184
Total Cadmium (Cd)	mg/L	0.0000760	0.0000050	8437184
Total Chromium (Cr)	mg/L	0.00031	0.00010	8437184
Total Cobalt (Co)	mg/L	0.000131	0.0000050	8437184
Total Copper (Cu)	mg/L	0.00109	0.000050	8437184
Total Iron (Fe)	mg/L	0.172	0.0010	8437184
Total Lead (Pb)	mg/L	0.0000570	0.0000050	8437184
Total Lithium (Li)	mg/L	<0.00050	0.00050	8437184
Total Manganese (Mn)	mg/L	0.0250	0.000050	8437184
Total Molybdenum (Mo)	mg/L	0.000339	0.000050	8437184
Total Nickel (Ni)	mg/L	0.000346	0.000020	8437184
Total Phosphorus (P)	mg/L	0.0128	0.0020	8437184
Total Selenium (Se)	mg/L	0.000568	0.000040	8437184
Total Silicon (Si)	mg/L	3.07	0.050	8437184
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	8437184
Total Strontium (Sr)	mg/L	0.0426	0.000050	8437184
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	8437184
Total Tin (Sn)	mg/L	<0.00020	0.00020	8437184
Total Titanium (Ti)	mg/L	0.00357	0.00050	8437184
Total Uranium (U)	mg/L	0.000269	0.0000020	8437184
Total Vanadium (V)	mg/L	0.00035	0.00020	8437184
Total Zinc (Zn)	mg/L	0.00360	0.00010	8437184
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	8437184
Total Calcium (Ca)	mg/L	24.3	0.050	8431906
Total Magnesium (Mg)	mg/L	2.41	0.050	8431906
RDL = Reportable Detection Limit				

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT4017		
Sampling Date		2016/10/10 10:20		
COC Number		08428352		
	UNITS	**W81**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.437	0.050	8431906
Total Sodium (Na)	mg/L	1.05	0.050	8431906
Total Sulphur (S)	mg/L	4.0	3.0	8431906
RDL = Reportable Detection Limit				

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Maxxam Job #: B690400
Report Date: 2016/10/20

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.7°C
Package 2	2.3°C

Sample PT4010, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PT4017, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Maxxam Job #: B690400
Report Date: 2016/10/20

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8432715	Turbidity	2016/10/13			98	80 - 120	<0.10	NTU	10	20
8433442	Total Dissolved Solids	2016/10/14	100	80 - 120	88	80 - 120	<10	mg/L	1.7	20
8433514	pH	2016/10/15			101	97 - 103			0.37	N/A
8433523	Conductivity	2016/10/15			100	80 - 120	<1.0	uS/cm	0.43	20
8433525	Alkalinity (PP as CaCO3)	2016/10/15					<0.50	mg/L	NC	20
8433525	Alkalinity (Total as CaCO3)	2016/10/15	92	80 - 120	98	80 - 120	<0.50	mg/L	2.7	20
8433525	Bicarbonate (HCO3)	2016/10/15					<0.50	mg/L	2.7	20
8433525	Carbonate (CO3)	2016/10/15					<0.50	mg/L	NC	20
8433525	Hydroxide (OH)	2016/10/15					<0.50	mg/L	NC	20
8433768	Total Aluminum (Al)	2016/10/14	NC	80 - 120	100	80 - 120	<0.0030	mg/L	2.7	20
8433768	Total Antimony (Sb)	2016/10/14	93	80 - 120	100	80 - 120	<0.000020	mg/L	0.89	20
8433768	Total Arsenic (As)	2016/10/14	85	80 - 120	99	80 - 120	<0.000020	mg/L	0.38	20
8433768	Total Barium (Ba)	2016/10/14	NC	80 - 120	101	80 - 120	<0.000050	mg/L	4.0	20
8433768	Total Beryllium (Be)	2016/10/14	91	80 - 120	94	80 - 120	<0.000010	mg/L	NC	20
8433768	Total Bismuth (Bi)	2016/10/14	94	80 - 120	98	80 - 120	<0.000010	mg/L	NC	20
8433768	Total Boron (B)	2016/10/14	87	80 - 120	90	80 - 120	<0.010	mg/L	NC	20
8433768	Total Cadmium (Cd)	2016/10/14	101	80 - 120	103	80 - 120	<0.0000050	mg/L	4.5	20
8433768	Total Chromium (Cr)	2016/10/14	95	80 - 120	99	80 - 120	<0.00010	mg/L	2.1	20
8433768	Total Cobalt (Co)	2016/10/14	94	80 - 120	97	80 - 120	<0.000010	mg/L	0.53	20
8433768	Total Copper (Cu)	2016/10/14	NC	80 - 120	101	80 - 120	<0.00010	mg/L	0.59	20
8433768	Total Iron (Fe)	2016/10/14	NC	80 - 120	104	80 - 120	<0.0050	mg/L	1.6	20
8433768	Total Lead (Pb)	2016/10/14	NC	80 - 120	101	80 - 120	<0.000020	mg/L	2.8	20
8433768	Total Lithium (Li)	2016/10/14	91	80 - 120	91	80 - 120	<0.00050	mg/L	NC	20
8433768	Total Manganese (Mn)	2016/10/14	NC	80 - 120	96	80 - 120	<0.00010	mg/L	0.20	20
8433768	Total Molybdenum (Mo)	2016/10/14	75 (1)	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
8433768	Total Nickel (Ni)	2016/10/14	97	80 - 120	98	80 - 120	<0.00010	mg/L	2.0	20
8433768	Total Selenium (Se)	2016/10/14	83	80 - 120	103	80 - 120	<0.000040	mg/L	NC	20
8433768	Total Silicon (Si)	2016/10/14					<0.050	mg/L	0.42	20
8433768	Total Silver (Ag)	2016/10/14	104	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8433768	Total Strontium (Sr)	2016/10/14	91	80 - 120	94	80 - 120	<0.000050	mg/L	2.5	20
8433768	Total Thallium (Tl)	2016/10/14	90	80 - 120	88	80 - 120	<0.0000020	mg/L	NC	20
8433768	Total Tin (Sn)	2016/10/14	88	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8433768	Total Titanium (Ti)	2016/10/14	87	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8433768	Total Uranium (U)	2016/10/14	99	80 - 120	100	80 - 120	<0.0000050	mg/L	0	20
8433768	Total Vanadium (V)	2016/10/14	95	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
8433768	Total Zinc (Zn)	2016/10/14	NC	80 - 120	105	80 - 120	<0.0010	mg/L	0.55	20
8433768	Total Zirconium (Zr)	2016/10/14					<0.00010	mg/L	NC	20
8433833	Orthophosphate (P)	2016/10/14	95	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20
8433884	Dissolved Phosphorus (P)	2016/10/14	573 (1)	80 - 120	102	80 - 120	<0.0020	mg/L	NC	20
8434124	Bromide (Br)	2016/10/17	NC	78 - 120	96	80 - 120	<0.010	mg/L	0.27	20
8434190	Total Ammonia (N)	2016/10/14	119	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20
8434192	Total Ammonia (N)	2016/10/14	104	80 - 120	101	80 - 120	<0.0050	mg/L	3.5	20
8434652	Alkalinity (PP as CaCO3)	2016/10/15					<0.50	mg/L	NC	20
8434652	Alkalinity (Total as CaCO3)	2016/10/15	NC	80 - 120	95	80 - 120	<0.50	mg/L	3.1	20
8434652	Bicarbonate (HCO3)	2016/10/15					<0.50	mg/L	3.1	20
8434652	Carbonate (CO3)	2016/10/15					<0.50	mg/L	NC	20
8434652	Hydroxide (OH)	2016/10/15					<0.50	mg/L	NC	20
8434662	Conductivity	2016/10/14			101	80 - 120	<1.0	uS/cm		
8434665	pH	2016/10/14			102	97 - 103				
8434898	Nitrate plus Nitrite (N)	2016/10/14	99	80 - 120	103	80 - 120	<0.0020	mg/L	2.5	25
8434900	Nitrite (N)	2016/10/14	95	80 - 120	95	80 - 120	<0.0020	mg/L	NC	25
8435367	Dissolved Chloride (Cl)	2016/10/17	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.78	20
8435376	Dissolved Sulphate (SO4)	2016/10/17	NC	80 - 120	105	80 - 120	<1.0	mg/L	0.70	20
8435661	Total Suspended Solids	2016/10/17	113	80 - 120	98	80 - 120	<4.0	mg/L	NC	20
8435669	Total Suspended Solids	2016/10/18	99	80 - 120	100	80 - 120	<4.0	mg/L	NC	20
8436130	Dissolved Organic Carbon (C)	2016/10/17	102	80 - 120	114	80 - 120	<0.50	mg/L	8.3	20
8436278	Acidity (pH 4.5)	2016/10/15					<0.50	mg/L	NC	20
8436278	Acidity (pH 8.3)	2016/10/15			101	80 - 120	<0.50	mg/L	0.15	20
8436285	Acidity (pH 4.5)	2016/10/15					<0.50	mg/L	NC	20
8436285	Acidity (pH 8.3)	2016/10/15			100	80 - 120	<0.50	mg/L	0.61	20
8437145	Dissolved Aluminum (Al)	2016/10/19	102	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
8437145	Dissolved Antimony (Sb)	2016/10/19	100	80 - 120	101	80 - 120	<0.000020	mg/L	1.4	20
8437145	Dissolved Arsenic (As)	2016/10/19	99	80 - 120	99	80 - 120	<0.000020	mg/L	NC	20
8437145	Dissolved Barium (Ba)	2016/10/19	NC	80 - 120	101	80 - 120	<0.000020	mg/L	0.028	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8437145	Dissolved Beryllium (Be)	2016/10/19	94	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8437145	Dissolved Bismuth (Bi)	2016/10/19	98	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8437145	Dissolved Boron (B)	2016/10/19	91	80 - 120	97	80 - 120	<0.010	mg/L	NC	20
8437145	Dissolved Cadmium (Cd)	2016/10/19	98	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8437145	Dissolved Chromium (Cr)	2016/10/19	96	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
8437145	Dissolved Cobalt (Co)	2016/10/19	95	80 - 120	101	80 - 120	<0.0000050	mg/L	2.9	20
8437145	Dissolved Copper (Cu)	2016/10/19	94	80 - 120	102	80 - 120	<0.000050	mg/L	NC	20
8437145	Dissolved Iron (Fe)	2016/10/19	101	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20
8437145	Dissolved Lead (Pb)	2016/10/19	98	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8437145	Dissolved Lithium (Li)	2016/10/19	93	80 - 120	94	80 - 120	<0.00050	mg/L	2.3	20
8437145	Dissolved Manganese (Mn)	2016/10/19	96	80 - 120	98	80 - 120	<0.000050	mg/L	3.2	20
8437145	Dissolved Molybdenum (Mo)	2016/10/19	101	80 - 120	99	80 - 120	<0.000050	mg/L	0.37	20
8437145	Dissolved Nickel (Ni)	2016/10/19	95	80 - 120	101	80 - 120	<0.000020	mg/L	8.3	20
8437145	Dissolved Phosphorus (P)	2016/10/19					<0.0020	mg/L	NC	20
8437145	Dissolved Selenium (Se)	2016/10/19	98	80 - 120	100	80 - 120	<0.000040	mg/L	1.6	20
8437145	Dissolved Silicon (Si)	2016/10/19					<0.050	mg/L	6.3	20
8437145	Dissolved Silver (Ag)	2016/10/19	93	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8437145	Dissolved Strontium (Sr)	2016/10/19	NC	80 - 120	95	80 - 120	<0.000050	mg/L	1.6	20
8437145	Dissolved Thallium (Tl)	2016/10/19	96	80 - 120	96	80 - 120	<0.0000020	mg/L	NC	20
8437145	Dissolved Tin (Sn)	2016/10/19	99	80 - 120	117	80 - 120	<0.00020	mg/L	NC	20
8437145	Dissolved Titanium (Ti)	2016/10/19	102	80 - 120	94	80 - 120	<0.00050	mg/L	NC	20
8437145	Dissolved Uranium (U)	2016/10/19	103	80 - 120	102	80 - 120	<0.0000020	mg/L	2.1	20
8437145	Dissolved Vanadium (V)	2016/10/19	97	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
8437145	Dissolved Zinc (Zn)	2016/10/19	100	80 - 120	107	80 - 120	<0.00010	mg/L	NC	20
8437145	Dissolved Zirconium (Zr)	2016/10/19					<0.00010	mg/L	NC	20
8437184	Total Aluminum (Al)	2016/10/19	97	80 - 120	103	80 - 120	<0.00050	mg/L	2.7	20
8437184	Total Antimony (Sb)	2016/10/19	93	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
8437184	Total Arsenic (As)	2016/10/19	97	80 - 120	101	80 - 120	<0.000020	mg/L	0.81	20
8437184	Total Barium (Ba)	2016/10/19	NC	80 - 120	101	80 - 120	<0.000020	mg/L	0.93	20
8437184	Total Beryllium (Be)	2016/10/19	95	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
8437184	Total Bismuth (Bi)	2016/10/19	99	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8437184	Total Boron (B)	2016/10/19	97	80 - 120	100	80 - 120	<0.010	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8437184	Total Cadmium (Cd)	2016/10/19	95	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8437184	Total Chromium (Cr)	2016/10/19	96	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20
8437184	Total Cobalt (Co)	2016/10/19	94	80 - 120	102	80 - 120	<0.0000050	mg/L	5.6	20
8437184	Total Copper (Cu)	2016/10/19	92	80 - 120	101	80 - 120	<0.000050	mg/L	5.7	20
8437184	Total Iron (Fe)	2016/10/19	NC	80 - 120	111	80 - 120	<0.0010	mg/L	1.3	20
8437184	Total Lead (Pb)	2016/10/19	101	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8437184	Total Lithium (Li)	2016/10/19	93	80 - 120	96	80 - 120	<0.00050	mg/L	6.0	20
8437184	Total Manganese (Mn)	2016/10/19	NC	80 - 120	100	80 - 120	<0.000050	mg/L	0.11	20
8437184	Total Molybdenum (Mo)	2016/10/19	NC	80 - 120	100	80 - 120	<0.000050	mg/L	0.89	20
8437184	Total Nickel (Ni)	2016/10/19	94	80 - 120	101	80 - 120	0.000027, RDL=0.000020	mg/L	5.9	20
8437184	Total Phosphorus (P)	2016/10/19					<0.0020	mg/L		
8437184	Total Selenium (Se)	2016/10/19	94	80 - 120	102	80 - 120	<0.000040	mg/L	1.3	20
8437184	Total Silicon (Si)	2016/10/19					<0.050	mg/L	1.5	20
8437184	Total Silver (Ag)	2016/10/19	101	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8437184	Total Strontium (Sr)	2016/10/19	NC	80 - 120	99	80 - 120	<0.000050	mg/L	2.9	20
8437184	Total Thallium (Tl)	2016/10/19	97	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
8437184	Total Tin (Sn)	2016/10/19	101	80 - 120	115	80 - 120	<0.00020	mg/L	NC	20
8437184	Total Titanium (Ti)	2016/10/19	99	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
8437184	Total Uranium (U)	2016/10/19	104	80 - 120	106	80 - 120	<0.0000020	mg/L	1.2	20
8437184	Total Vanadium (V)	2016/10/19	97	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8437184	Total Zinc (Zn)	2016/10/19	96	80 - 120	107	80 - 120	<0.00010	mg/L	4.6	20
8437184	Total Zirconium (Zr)	2016/10/19					<0.00010	mg/L	NC	20
8438861	Total Phosphorus (P)	2016/10/18	NC	80 - 120	95	80 - 120	<0.0020	mg/L	1.8	20
8438903	Fluoride (F)	2016/10/19	99	80 - 120	98	80 - 120	0.015, RDL=0.010	mg/L	1.3	20
8438904	Dissolved Phosphorus (P)	2016/10/18			93	80 - 120	<0.0020	mg/L		
8440154	Dissolved Aluminum (Al)	2016/10/20			99	80 - 120	<0.00050	mg/L		
8440154	Dissolved Iron (Fe)	2016/10/20			97	80 - 120	<0.0010	mg/L		
8440154	Dissolved Lead (Pb)	2016/10/20			97	80 - 120	<0.0000050	mg/L		
8440154	Dissolved Manganese (Mn)	2016/10/20			97	80 - 120	<0.000050	mg/L		
8440154	Dissolved Selenium (Se)	2016/10/20			99	80 - 120	<0.000040	mg/L		
8441080	Total Phosphorus (P)	2016/10/20			107	80 - 120	<0.0020	mg/L		

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Maxxam Job #: B690400
Report Date: 2016/10/20

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8441081	Dissolved Phosphorus (P)	2016/10/20			107	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

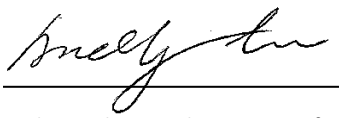
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B690400
Report Date: 2016/10/20

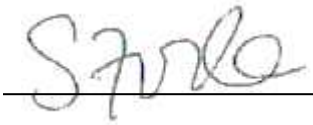
YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

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



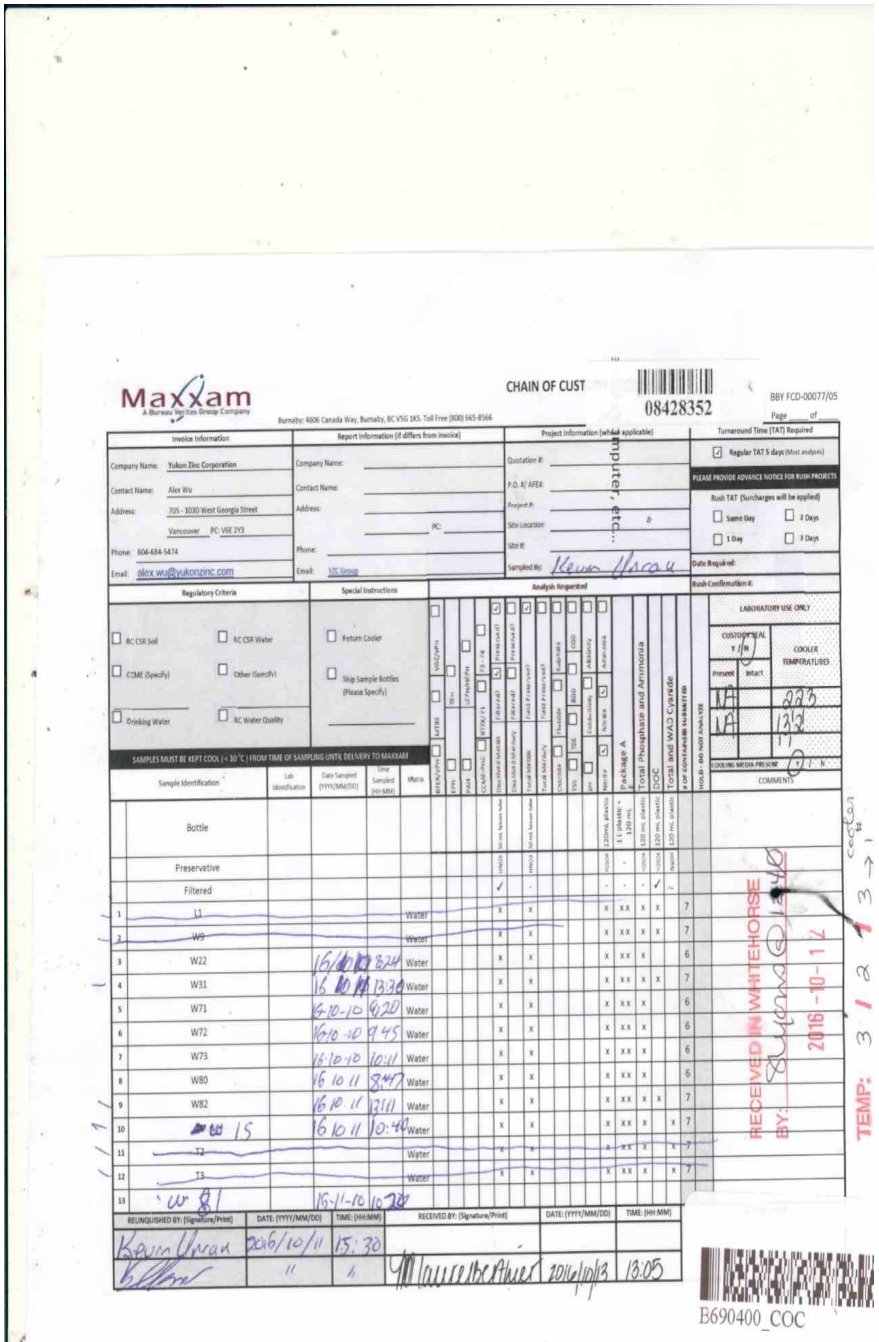
Andy Lu, Ph.D., P.Chem., Scientific Specialist



Suwan Fock, B.Sc., QP, Inorganics Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Page ___ of

Maxxam
A Bureau Veritas Group Company

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

Invoice Information
Company Name: Yukon Zinc Corporation
Contact Name: Alex Wu
Address: 705 - 1030 West Georgia Street
Vancouver PC: V6E 2Y3
Phone: 604-684-5474
Email: alex.wu@yukonzinc.com

Report Information (if differs from invoice)
Company Name:
Contact Name:
Address:
PC:
Phone:
Email: YZC Group

Project Information (where applicable)
Quotation #:
P.O. #/ AFE:
Project #:
Site Location:
Site #:
Sampled By: Kevin Horan

Turnaround Time (TAT) Required
☑ Regular TAT 5 days (Most analyses)
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Rush TAT (Surcharges will be applied)
☐ Same Day ☐ 2 Days
☐ 1 Day ☐ 3 Days
Date Required:
Rush Confirmation #:

Regulatory Criteria
☐ BC CSR Soil ☐ BC CSR Water
☐ CCME (Specify) ☐ Other (Specify)
☐ Drinking Water ☐ BC Water Quality

Special Instructions
☐ Return Cooler
☐ Skip Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

LABORATORY USE ONLY
CUSTODY SEAL Y / N — Present / Intact
COOLER TEMPERATURES
COOLING MEDIA PRESENT Y / N
COMMENTS

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	Dissolved Metals (60 mL)	Total Metals (60 mL)	Package A (1 L plastic + 120 mL)	Total Phosphate and Ammonia (120 mL plastic)	DOC (120 mL plastic)	Total and WAD Cyanide (120 mL plastic)	# OF CONTAINERS SUBMITTED
	Bottle					HNO3	HNO3	H2SO4	H2SO4	H2SO4	NaOH	
	Preservative							-	-	-	✓	
	Filtered					✓	-	-	-	-	✓	
1	L1				Water	x	x	x	xx	x	x	7
2	W9				Water	x	x	x	xx	x	x	7
3	W22		16/10/10	8:24	Water	x	x	x	xx	x		6
4	W31		16/10/10	13:30	Water	x	x	x	xx	x	x	7
5	W71		16-10-10	9:20	Water	x	x	x	xx	x		6
6	W72		16/10/10	9:45	Water	x	x	x	xx	x		6
7	W73		16-10-10	10:11	Water	x	x	x	xx	x		6
8	W80		16 10 11	8:47	Water	x	x	x	xx	x		6
9	W82		16 10 11	12:11	Water	x	x	x	xx	x	x	7
10	W 15		16 10 11	10:49	Water	x	x	x	xx	x	x	7
11	T2				Water	x	x	x	xx	x	x	7
12	T3				Water	x	x	x	xx	x	x	7
13	W 81		16-1-10	10:28								

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Horan	2016/10/11	15:30			
	11	11	Maureen Beaulieu	2016/10/13	13:05

RECEIVED IN WHITEHORSE
BY: [illegible]
2016-10-12

TEMP: 3 1 2 1 3 → 1 cooler

B690400_COC

Maxxam
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Success Through Science®

Your C.O.C. #: 08428403

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/10/21
Report #: R2287450
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B690931
Received: 2016/10/13, 12:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2016/10/19	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	3	2016/10/15	2016/10/16	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	3	N/A	2016/10/20	AB SOP-00020	SM 22-4500-Cl G m
Conductance - water	3	N/A	2016/10/16	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	3	N/A	2016/10/19	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	3	N/A	2016/10/19	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	3	N/A	2016/10/17	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	3	N/A	2016/10/19	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/10/19	BBY7SOP-00002	EPA 6020B R2 m
Ammonia-N (Preserved)	3	N/A	2016/10/18	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	3	N/A	2016/10/15	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	3	N/A	2016/10/15	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	3	N/A	2016/10/18	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	3	N/A	2016/10/18	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	3	N/A	2016/10/16	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	2	N/A	2016/10/15	BBY6SOP-00013	SM 22 4500-P E m
Orthophosphate by Konelab (low level)	1	N/A	2016/10/21	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry (1)	3	N/A	2016/10/20	AB SOP-00018	SM 22 4500-SO4 E m
Total Dissolved Solids (Filt. Residue)	3	2016/10/15	2016/10/17	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	2	2016/10/14	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/10/21	2016/10/21	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - Low Level	3	N/A	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	3	2016/10/19	2016/10/20	BBY6SOP-00034	SM 22 2540 D
Turbidity	3	N/A	2016/10/15	BBY6SOP-00027	SM 22 2130 B m

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 Maxxam Calgary Environmental
(2) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: 08428403

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/10/21
Report #: R2287450
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B690931
Received: 2016/10/13, 12:30

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B690931
Report Date: 2016/10/21

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT7715	PT7716		PT7717		
Sampling Date		2016/10/12 15:15	2016/10/12 15:32		2016/10/12 16:03		
COC Number		08428403	08428403		08428403		
	UNITS	MW05-5A	MW05-5B	QC Batch	MW06-11S	RDL	QC Batch
Misc. Inorganics							
Fluoride (F)	mg/L	2.10	0.210	8439038	2.60	0.010	8439038
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	ONSITE	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	0.30	<0.20	8433340	<0.20	0.20	8433340
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	264	153	8433939	239	0.50	8433939
Acidity (pH 4.5)	mg/L	<0.50	<0.50	8439666	<0.50	0.50	8439661
Alkalinity (Total as CaCO3)	mg/L	230	116	8435001	204	0.50	8435001
Acidity (pH 8.3)	mg/L	<0.50	<0.50	8439666	5.11	0.50	8439661
Alkalinity (PP as CaCO3)	mg/L	2.43	<0.50	8435001	2.24	0.50	8435001
Bicarbonate (HCO3)	mg/L	274	141	8435001	244	0.50	8435001
Carbonate (CO3)	mg/L	2.92	<0.50	8435001	2.69	0.50	8435001
Hydroxide (OH)	mg/L	<0.50	<0.50	8435001	<0.50	0.50	8435001
Anions							
Orthophosphate (P)	mg/L	0.011	0.0013	8434493	0.011 (1)	0.0010	8442876
Dissolved Sulphate (SO4)	mg/L	33	46	8440264	38	1.0	8440264
Dissolved Chloride (Cl)	mg/L	20	6.4	8440262	1.6	1.0	8440262
Nutrients							
Dissolved Phosphorus (P)	mg/L	0.0104	<0.0020	8438934	0.0154 (1)	0.0020	8442897
Total Ammonia (N)	mg/L	0.10	0.058	8437274	0.23	0.0050	8437265
Nitrate plus Nitrite (N)	mg/L	0.30 (2)	<0.20 (2)	8434964	<0.20 (2)	0.20	8434964
Nitrite (N)	mg/L	<0.20 (2)	<0.20 (2)	8434965	<0.20 (2)	0.20	8434965
Total Phosphorus (P)	mg/L	0.0196	0.0041	8438940	0.0195	0.0020	8438940
Physical Properties							
Conductivity	uS/cm	481	306	8435002	438	1.0	8435002
pH	pH	8.33	8.19	8435003	8.35		8435003
Physical Properties							
Total Suspended Solids	mg/L	<4.0	<4.0	8437711	<4.0	4.0	8437711
Total Dissolved Solids	mg/L	258	170	8434545	242	10	8434545
Turbidity	NTU	8.60	4.11	8434581	10.3	0.10	8434581

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

(2) RDL raised due to sample matrix interference.

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Maxxam Job #: B690931
Report Date: 2016/10/21

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT7715	PT7716	PT7717		
Sampling Date		2016/10/12 15:15	2016/10/12 15:32	2016/10/12 16:03		
COC Number		08428403	08428403	08428403		
	UNITS	MW05-5A	MW05-5B	MW06-11S	RDL	QC Batch
ANIONS						
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	0.010	8434170
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.00417	0.00080	0.00312	0.00050	8437155
Dissolved Antimony (Sb)	mg/L	0.00444	0.000416	0.000073	0.000020	8437155
Dissolved Arsenic (As)	mg/L	0.00522	0.00264	0.00378	0.000020	8437155
Dissolved Barium (Ba)	mg/L	0.0435	0.0375	0.0480	0.000020	8437155
Dissolved Beryllium (Be)	mg/L	0.000030	<0.000010	<0.000010	0.000010	8437155
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	8437155
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010	0.010	8437155
Dissolved Cadmium (Cd)	mg/L	0.0000270	0.0000210	<0.0000050	0.0000050	8437155
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	8437155
Dissolved Cobalt (Co)	mg/L	0.000142	0.00122	0.000649	0.0000050	8437155
Dissolved Copper (Cu)	mg/L	0.000261	<0.000050	<0.000050	0.000050	8437155
Dissolved Iron (Fe)	mg/L	1.19	0.449	1.25	0.0010	8437155
Dissolved Lead (Pb)	mg/L	0.000369	0.0000230	0.0000470	0.0000050	8437155
Dissolved Lithium (Li)	mg/L	0.00267	0.00128	0.00169	0.00050	8437155
Dissolved Manganese (Mn)	mg/L	0.0646	0.890	0.132	0.000050	8437155
Dissolved Molybdenum (Mo)	mg/L	0.00701	0.00128	0.0134	0.000050	8437155
Dissolved Nickel (Ni)	mg/L	0.00135	0.0106	0.00286	0.000020	8437155
Dissolved Phosphorus (P)	mg/L	0.0114	0.0049	0.0177	0.0020	8437155
Dissolved Selenium (Se)	mg/L	0.000044	0.000048	<0.000040	0.000040	8437155
Dissolved Silicon (Si)	mg/L	4.04	3.87	5.70	0.050	8437155
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	8437155
Dissolved Strontium (Sr)	mg/L	0.133	0.117	0.122	0.000050	8437155
Dissolved Thallium (Tl)	mg/L	0.0000040	0.0000040	<0.0000020	0.0000020	8437155
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8437155
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	8437155
Dissolved Uranium (U)	mg/L	0.0275	0.00297	0.00679	0.0000020	8437155
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	8437155
Dissolved Zinc (Zn)	mg/L	0.0462	0.0879	0.00851	0.00010	8437155
Dissolved Zirconium (Zr)	mg/L	0.00059	<0.00010	0.00014	0.00010	8437155
Dissolved Calcium (Ca)	mg/L	70.8	49.6	66.7	0.050	8433361
Dissolved Magnesium (Mg)	mg/L	21.1	7.06	17.5	0.050	8433361
Dissolved Potassium (K)	mg/L	1.44	0.590	1.43	0.050	8433361
RDL = Reportable Detection Limit						

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Maxxam Job #: B690931
Report Date: 2016/10/21

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT7715	PT7716	PT7717		
Sampling Date		2016/10/12 15:15	2016/10/12 15:32	2016/10/12 16:03		
COC Number		08428403	08428403	08428403		
	UNITS	**MW05-5A**	**MW05-5B**	**MW06-11S**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	0.266	0.789	1.09	0.050	8433361
Dissolved Sulphur (S)	mg/L	12.0	13.2	12.4	3.0	8433361
RDL = Reportable Detection Limit						

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Maxxam Job #: B690931
Report Date: 2016/10/21

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C

Results relate only to the items tested.

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Maxxam Job #: B690931
Report Date: 2016/10/21

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8434170	Bromide (Br)	2016/10/17	101	78 - 120	98	80 - 120	<0.010	mg/L	NC	20
8434493	Orthophosphate (P)	2016/10/15	103	80 - 120	92	80 - 120	<0.0010	mg/L	1.8	20
8434545	Total Dissolved Solids	2016/10/17	101	80 - 120	88	80 - 120	<10	mg/L	1.7	20
8434581	Turbidity	2016/10/15			104	80 - 120	<0.10	NTU	4.5	20
8434964	Nitrate plus Nitrite (N)	2016/10/15	103	80 - 120	106	80 - 120	<0.0020	mg/L	NC	25
8434965	Nitrite (N)	2016/10/15	98	80 - 120	98	80 - 120	<0.0020	mg/L	NC	25
8435001	Alkalinity (PP as CaCO3)	2016/10/16					<0.50	mg/L	NC	20
8435001	Alkalinity (Total as CaCO3)	2016/10/16	N/C	80 - 120	100	80 - 120	<0.50	mg/L	NC	20
8435001	Bicarbonate (HCO3)	2016/10/16					<0.50	mg/L	NC	20
8435001	Carbonate (CO3)	2016/10/16					<0.50	mg/L	NC	20
8435001	Hydroxide (OH)	2016/10/16					<0.50	mg/L	NC	20
8435002	Conductivity	2016/10/16			99	80 - 120	1.1, RDL=1.0	uS/cm	0.23	20
8435003	pH	2016/10/16			102	97 - 103			1.6 (1)	N/A
8437155	Dissolved Aluminum (Al)	2016/10/19	103	80 - 120	102	80 - 120	<0.00050	mg/L	0.62	20
8437155	Dissolved Antimony (Sb)	2016/10/19	NC	80 - 120	98	80 - 120	<0.000020	mg/L	2.2	20
8437155	Dissolved Arsenic (As)	2016/10/19	105	80 - 120	101	80 - 120	<0.000020	mg/L	1.6	20
8437155	Dissolved Barium (Ba)	2016/10/19	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.63	20
8437155	Dissolved Beryllium (Be)	2016/10/19	99	80 - 120	98	80 - 120	<0.000010	mg/L	NC	20
8437155	Dissolved Bismuth (Bi)	2016/10/19	104	80 - 120	105	80 - 120	<0.0000050	mg/L	NC	20
8437155	Dissolved Boron (B)	2016/10/19	101	80 - 120	102	80 - 120	<0.010	mg/L	NC	20
8437155	Dissolved Cadmium (Cd)	2016/10/19	98	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
8437155	Dissolved Chromium (Cr)	2016/10/19	99	80 - 120	101	80 - 120	<0.00010	mg/L	3.7	20
8437155	Dissolved Cobalt (Co)	2016/10/19	97	80 - 120	102	80 - 120	<0.0000050	mg/L	0	20
8437155	Dissolved Copper (Cu)	2016/10/19	94	80 - 120	102	80 - 120	<0.000050	mg/L	1.0	20
8437155	Dissolved Iron (Fe)	2016/10/19	105	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20
8437155	Dissolved Lead (Pb)	2016/10/19	106	80 - 120	106	80 - 120	<0.0000050	mg/L	NC	20
8437155	Dissolved Lithium (Li)	2016/10/19	100	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20
8437155	Dissolved Manganese (Mn)	2016/10/19	99	80 - 120	104	80 - 120	0.000052, RDL=0.000050	mg/L	NC	20
8437155	Dissolved Molybdenum (Mo)	2016/10/19	NC	80 - 120	103	80 - 120	<0.000050	mg/L	1.4	20
8437155	Dissolved Nickel (Ni)	2016/10/19	95	80 - 120	102	80 - 120	0.000021, RDL=0.000020	mg/L	5.0	20
8437155	Dissolved Phosphorus (P)	2016/10/19					<0.0020	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8437155	Dissolved Selenium (Se)	2016/10/19	100	80 - 120	100	80 - 120	<0.000040	mg/L	1.5	20
8437155	Dissolved Silicon (Si)	2016/10/19					<0.050	mg/L	0.22	20
8437155	Dissolved Silver (Ag)	2016/10/19	100	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
8437155	Dissolved Strontium (Sr)	2016/10/19	NC	80 - 120	94	80 - 120	<0.000050	mg/L	1.4	20
8437155	Dissolved Thallium (Tl)	2016/10/19	102	80 - 120	100	80 - 120	<0.0000020	mg/L	NC	20
8437155	Dissolved Tin (Sn)	2016/10/19	103	80 - 120	117	80 - 120	<0.00020	mg/L	NC	20
8437155	Dissolved Titanium (Ti)	2016/10/19	103	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
8437155	Dissolved Uranium (U)	2016/10/19	NC	80 - 120	105	80 - 120	<0.0000020	mg/L	0.28	20
8437155	Dissolved Vanadium (V)	2016/10/19	98	80 - 120	101	80 - 120	<0.00020	mg/L	2.0	20
8437155	Dissolved Zinc (Zn)	2016/10/19	104	80 - 120	110	80 - 120	<0.00010	mg/L	5.0	20
8437155	Dissolved Zirconium (Zr)	2016/10/19					<0.00010	mg/L	NC	20
8437265	Total Ammonia (N)	2016/10/18	104	80 - 120	102	80 - 120	<0.0050	mg/L	NC	20
8437274	Total Ammonia (N)	2016/10/18	NC	80 - 120	96	80 - 120	<0.0050	mg/L	1.9	20
8437711	Total Suspended Solids	2016/10/20	105	80 - 120	108	80 - 120	<4.0	mg/L	9.8	20
8438934	Dissolved Phosphorus (P)	2016/10/18			95	80 - 120	<0.0020	mg/L		
8438940	Total Phosphorus (P)	2016/10/18	91	80 - 120	89	80 - 120	<0.0020	mg/L	NC	20
8439038	Fluoride (F)	2016/10/19	NC	80 - 120	98	80 - 120	0.014, RDL=0.010	mg/L	0	20
8439661	Acidity (pH 4.5)	2016/10/19					<0.50	mg/L	NC	20
8439661	Acidity (pH 8.3)	2016/10/19			106	80 - 120	0.70, RDL=0.50	mg/L	NC	20
8439666	Acidity (pH 4.5)	2016/10/19					<0.50	mg/L	NC	20
8439666	Acidity (pH 8.3)	2016/10/19			106	80 - 120	0.50, RDL=0.50	mg/L	NC	20
8440262	Dissolved Chloride (Cl)	2016/10/20	101	80 - 120	105	80 - 120	<1.0	mg/L	NC	20
8440264	Dissolved Sulphate (SO4)	2016/10/20	104	80 - 120	104	80 - 120	<1.0	mg/L	NC	20
8442876	Orthophosphate (P)	2016/10/21			96	80 - 120	<0.0010	mg/L		

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Maxxam Job #: B690931
Report Date: 2016/10/21

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8442897	Dissolved Phosphorus (P)	2016/10/21			96	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

(1) pH result is less than the lowest calibration standard of pH 4.00

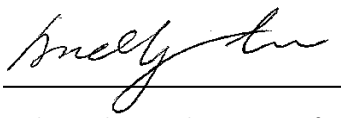
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Maxxam Job #: B690931
Report Date: 2016/10/21

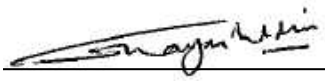
YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

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



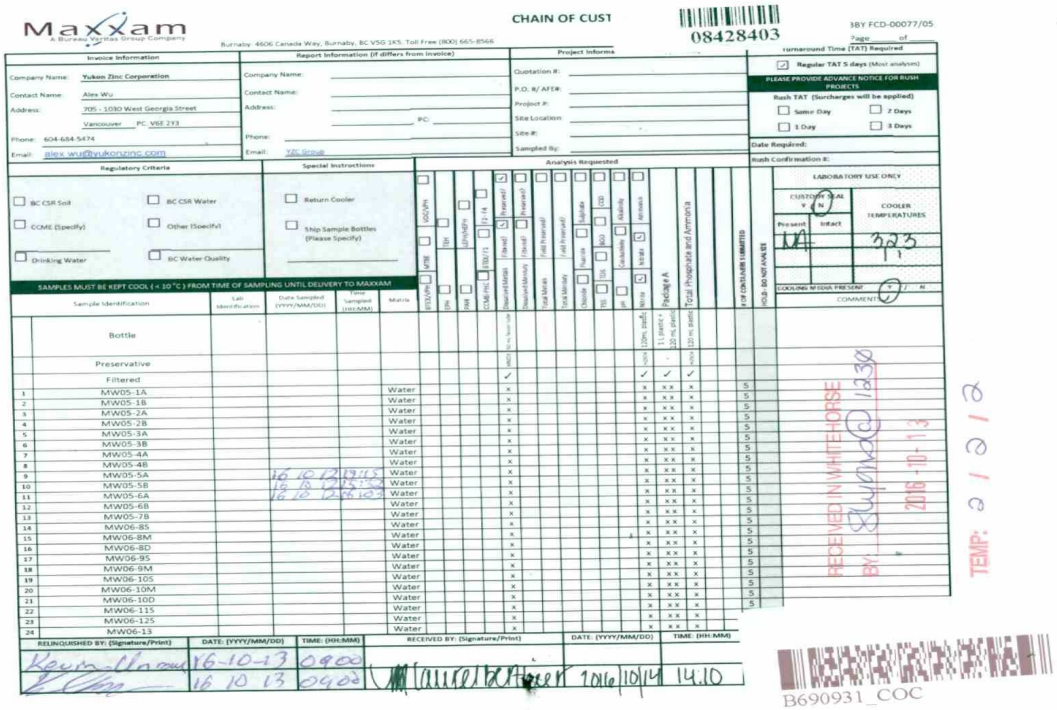
Andy Lu, Ph.D., P.Chem., Scientific Specialist



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5, Toll Free (800) 665-8566

Page of

Invoice Information
Company Name: Yukon Zinc Corporation
Contact Name: Alex Wu
Address: 705 - 1030 West Georgia Street
Vancouver PC: V6E 2Y3
Phone: 604-684-5474
Email: alex.wu@yukonzinc.com

Report Information (if differs from Invoice)
Company Name:
Contact Name:
Address: PC:
Phone:
Email: YZC Group

Project Informa
Quotation #:
P.O. #/ AFE#:
Project #:
Site Location:
Site #:
Sampled By:

Turnaround Time (TAT) Required
Regular TAT 5 days (Most analysis)
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Rush TAT (Surcharges will be applied)
Same Day 2 Days
1 Day 3 Days
Date Required:
Rush Confirmation #:

Regulatory Criteria
BC CSR Soil BC CSR Water
CCME (Specify) Other (Specify)
Drinking Water BC Water Quality

Special Instructions
Return Cooler
Ship Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

LABORATORY USE ONLY
CUSTODY SEAL Y / N
COOLER TEMPERATURES
Present / Intact
YA / YA
3 / 3
COOLING MEDIA PRESENT Y / N
COMMENTS

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	# OF CONTAINERS SUBMITTED
	Bottle					
	Preservative					
	Filtered					
1	MW05-1A				Water	5
2	MW05-1B				Water	5
3	MW05-2A				Water	5
4	MW05-2B				Water	5
5	MW05-3A				Water	5
6	MW05-3B				Water	5
7	MW05-4A				Water	5
8	MW05-4B				Water	5
9	MW05-5A		16 10 12	19:45	Water	5
10	MW05-5B		16 10 12	20:50	Water	5
11	MW05-6A		16 10 13	06:10	Water	5
12	MW05-6B				Water	5
13	MW05-7B				Water	5
14	MW06-8S				Water	5
15	MW06-8M				Water	5
16	MW06-8D				Water	5
17	MW06-9S				Water	5
18	MW06-9M				Water	5
19	MW06-10S				Water	5
20	MW06-10M				Water	5
21	MW06-10D				Water	5
22	MW06-11S				Water	5
23	MW06-12S				Water	5
24	MW06-13				Water	5

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Howe	16-10-13	0900			
E Chin	16 10 13	0900	Laurel Bratt	2016/10/14	14:10

RECEIVED IN WHITEHORSE
BY Sunny
206-10-13
1238

TEMP: 2 / 2 / 2

B690931_COC

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Your C.O.C. #: 08428402

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/10/21
Report #: R2287453
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B690932
Received: 2016/10/13, 12:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2016/10/19	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	3	2016/10/15	2016/10/16	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	3	N/A	2016/10/20	AB SOP-00020	SM 22-4500-Cl G m
Cyanide SAD (strong acid dissociable)	2	N/A	2016/10/18	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	2	N/A	2016/10/18	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (2)	1	N/A	2016/10/17	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	3	N/A	2016/10/16	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	3	N/A	2016/10/19	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	1	N/A	2016/10/18	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3)	2	N/A	2016/10/20	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	3	N/A	2016/10/20	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	3	N/A	2016/10/17	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	3	N/A	2016/10/20	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/10/20	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	1	2016/10/18	2016/10/18	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2016/10/18	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2016/10/20	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	2	N/A	2016/10/20	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	3	N/A	2016/10/18	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	3	N/A	2016/10/15	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	3	N/A	2016/10/15	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	3	N/A	2016/10/18	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	3	N/A	2016/10/20	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	3	N/A	2016/10/16	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	3	N/A	2016/10/15	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry (1)	3	N/A	2016/10/20	AB SOP-00018	SM 22 4500-SO4 E m
Total Dissolved Solids (Filt. Residue)	3	2016/10/15	2016/10/17	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - FF/FP	1	2016/10/14	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/10/14	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/10/21	2016/10/21	BBY6SOP-00013	SM 22 4500-P E m

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Your C.O.C. #: 08428402

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
PO Box 57
Whitehorse, YT
CANADA Y1A 5X9

Report Date: 2016/10/21
Report #: R2287453
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B690932
Received: 2016/10/13, 12:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Phosphorus - Low Level	2	N/A	2016/10/18	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - Low Level	1	N/A	2016/10/21	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	3	2016/10/17	2016/10/18	BBY6SOP-00034	SM 22 2540 D
Turbidity	3	N/A	2016/10/15	BBY6SOP-00027	SM 22 2130 B m

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 Maxxam Calgary Environmental
(2) DOC present in the sample should be considered as non-purgeable DOC.
(3) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B690932
Report Date: 2016/10/21

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT7748		PT7749			PT7750		
Sampling Date		2016/10/12 16:12		2016/10/12 16:31			2016/10/12 16:45		
COC Number		08428402		08428402			08428402		
	UNITS	T1	QC Batch	T2	RDL	QC Batch	T3	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.190	8439038	0.190	0.010	8439038	0.210	0.010	8439038
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	1480	8433129	1490	0.50	8433129	1960	0.50	8433129
Nitrate (N)	mg/L	0.38	8433340	0.31	0.20	8433340	0.46	0.20	8433340
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L		8437523	0.0200	0.00050	8437523	0.121	0.0050	8437523
Weak Acid Dissoc. Cyanide (CN)	mg/L		8437530	0.00126	0.00050	8437530	0.00963	0.00050	8437530
Dissolved Hardness (CaCO3)	mg/L	1500	8433939	1460	0.50	8433939	1850	0.50	8433939
Dissolved Organic Carbon (C)	mg/L	22.7	8436130		0.50	8436130			8436130
Acidity (pH 4.5)	mg/L	<0.50	8439666	<0.50	0.50	8439666	<0.50	0.50	8439661
Alkalinity (Total as CaCO3)	mg/L	7.24	8435001	6.10	0.50	8435001	4.25	0.50	8435001
Acidity (pH 8.3)	mg/L	7.52	8439666	5.15	0.50	8439666	7.36	0.50	8439661
Alkalinity (PP as CaCO3)	mg/L	<0.50	8435001	<0.50	0.50	8435001	<0.50	0.50	8435001
Bicarbonate (HCO3)	mg/L	8.83	8435001	7.44	0.50	8435001	5.19	0.50	8435001
Carbonate (CO3)	mg/L	<0.50	8435001	<0.50	0.50	8435001	<0.50	0.50	8435001
Hydroxide (OH)	mg/L	<0.50	8435001	<0.50	0.50	8435001	<0.50	0.50	8435001
Anions									
Orthophosphate (P)	mg/L	0.0050	8434493	0.0050	0.0010	8434493	0.012	0.0010	8434493
Dissolved Sulphate (SO4)	mg/L	1700 (1)	8440207	1700 (1)	20	8440207	1900 (1)	20	8440207
Dissolved Chloride (Cl)	mg/L	240 (1)	8440204	250 (1)	2.0	8440204	440 (1)	5.0	8440204
Nutrients									
Dissolved Phosphorus (P)	mg/L	0.0920	8438942	0.0910 (2)	0.0020	8442897	0.0926	0.0020	8438934
Total Ammonia (N)	mg/L	0.59	8437274	0.44	0.0050	8437265	0.66	0.0050	8437274
Nitrate plus Nitrite (N)	mg/L	0.38 (3)	8434964	0.31 (3)	0.20	8434964	0.46 (3)	0.20	8434964
Nitrite (N)	mg/L	<0.20 (3)	8434965	<0.20 (3)	0.20	8434965	<0.20 (3)	0.20	8434965
Total Phosphorus (P)	mg/L	0.0937	8438940	0.0979	0.0020	8442909	0.131	0.0020	8438940
Physical Properties									
Conductivity	uS/cm	3080	8435002	3080	1.0	8435002	3370	1.0	8435002
pH	pH	6.81	8435003	6.70		8435003	6.52		8435003

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
(3) RDL raised due to sample matrix interference.

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Maxxam Job #: B690932
Report Date: 2016/10/21

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		PT7748		PT7749			PT7750		
Sampling Date		2016/10/12 16:12		2016/10/12 16:31			2016/10/12 16:45		
COC Number		08428402		08428402			08428402		
	UNITS	T1	QC Batch	T2	RDL	QC Batch	T3	RDL	QC Batch
Physical Properties									
Total Suspended Solids	mg/L	4.3	8435661	4.0	4.0	8435661	<4.0	4.0	8435669
Total Dissolved Solids	mg/L	2820	8434545	2860	10	8434545	3220	10	8434545
Turbidity	NTU	4.30	8434581	4.09	0.10	8434581	3.39	0.10	8434581
RDL = Reportable Detection Limit									

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Maxxam Job #: B690932
Report Date: 2016/10/21

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT7748		PT7749			PT7750		
Sampling Date		2016/10/12 16:12		2016/10/12 16:31			2016/10/12 16:45		
COC Number		08428402		08428402			08428402		
	UNITS	T1	QC Batch	T2	RDL	QC Batch	T3	RDL	QC Batch
ANIONS									
Bromide (Br)	mg/L	<0.10 (1)	8434170	<0.10 (1)	0.10	8434170	0.11 (1)	0.10	8434170
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	mg/L	0.0165	8437174	0.0238	0.0025	8437174	0.0579	0.0025	8442437
Dissolved Antimony (Sb)	mg/L	0.0466	8437174	0.0472	0.00010	8437174	0.0552	0.00010	8437174
Dissolved Arsenic (As)	mg/L	0.00657	8437174	0.00698	0.00010	8437174	0.00982	0.00010	8437174
Dissolved Barium (Ba)	mg/L	0.0719	8437174	0.0729	0.00010	8437174	0.0925	0.00010	8437174
Dissolved Beryllium (Be)	mg/L	<0.000050	8437174	<0.000050	0.000050	8437174	<0.000050	0.000050	8437174
Dissolved Bismuth (Bi)	mg/L	<0.000025	8437174	<0.000025	0.000025	8437174	<0.000025	0.000025	8437174
Dissolved Boron (B)	mg/L	<0.050	8437174	<0.050	0.050	8437174	<0.050	0.050	8437174
Dissolved Cadmium (Cd)	mg/L	0.0114	8437174	0.0112	0.000025	8437174	0.00844	0.000025	8437174
Dissolved Chromium (Cr)	mg/L	<0.00050	8437174	0.00220	0.00050	8437174	<0.00050	0.00050	8437174
Dissolved Cobalt (Co)	mg/L	0.00179	8437174	0.00185	0.000025	8437174	0.00161	0.000025	8437174
Dissolved Copper (Cu)	mg/L	0.365	8437174	0.363	0.00025	8437174	0.655	0.00025	8437174
Dissolved Iron (Fe)	mg/L	0.0633	8437174	0.311 (2)	0.0050	8437174	0.800 (2)	0.0050	8442437
Dissolved Lead (Pb)	mg/L	0.0420	8437174	0.0411	0.000025	8437174	0.238 (2)	0.000025	8442437
Dissolved Lithium (Li)	mg/L	0.0109	8437174	0.0099	0.0025	8437174	0.0130	0.0025	8437174
Dissolved Manganese (Mn)	mg/L	0.428	8437174	0.425	0.00025	8437174	0.293	0.00025	8437174
Dissolved Molybdenum (Mo)	mg/L	0.0925	8437174	0.0910	0.00025	8437174	0.0830	0.00025	8437174
Dissolved Nickel (Ni)	mg/L	0.00743	8437174	0.00797	0.00010	8437174	0.00790	0.00010	8437174
Dissolved Phosphorus (P)	mg/L	0.089	8437174	0.081	0.010	8440154	0.145	0.010	8437174
Dissolved Selenium (Se)	mg/L	1.73	8437174	1.75	0.00020	8437174	2.11	0.00020	8437174
Dissolved Silicon (Si)	mg/L	1.87	8437174	1.99	0.25	8437174	2.01	0.25	8437174
Dissolved Silver (Ag)	mg/L	0.00255	8437174	0.00741	0.000025	8437174	0.000339	0.000025	8442437
Dissolved Strontium (Sr)	mg/L	2.35	8437174	2.25	0.00025	8437174	2.90	0.00025	8437174
Dissolved Thallium (Tl)	mg/L	0.00100	8437174	0.00114	0.000010	8437174	0.000869	0.000010	8442437
Dissolved Tin (Sn)	mg/L	<0.0010	8437174	<0.0010	0.0010	8437174	<0.0010	0.0010	8437174
Dissolved Titanium (Ti)	mg/L	<0.0025	8437174	<0.0025	0.0025	8437174	<0.0025	0.0025	8437174
Dissolved Uranium (U)	mg/L	0.000427	8437174	0.000408	0.000010	8437174	0.000453	0.000010	8437174
Dissolved Vanadium (V)	mg/L	<0.0010	8437174	<0.0010	0.0010	8437174	<0.0010	0.0010	8437174
Dissolved Zinc (Zn)	mg/L	1.33	8437174	1.33	0.00050	8437174	1.08	0.00050	8437174
Dissolved Zirconium (Zr)	mg/L	<0.00050	8437174	<0.00050	0.00050	8437174	<0.00050	0.00050	8437174
Dissolved Calcium (Ca)	mg/L	595	8433361	580	0.25	8433361	738	0.25	8433361

RDL = Reportable Detection Limit

(1) RDL raised due to sample matrix interference.

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

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT7748		PT7749			PT7750		
Sampling Date		2016/10/12 16:12		2016/10/12 16:31			2016/10/12 16:45		
COC Number		08428402		08428402			08428402		
	UNITS	T1	QC Batch	T2	RDL	QC Batch	T3	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	2.68	8433361	2.66	0.25	8433361	1.96	0.25	8433361
Dissolved Potassium (K)	mg/L	46.6	8433361	45.3	0.25	8433361	60.8	0.25	8433361
Dissolved Sodium (Na)	mg/L	173	8433361	167	0.25	8433361	218	0.25	8433361
Dissolved Sulphur (S)	mg/L	803	8433361	819	15	8433361	948	15	8433361
Total Metals by ICPMS									
Total Aluminum (Al)	mg/L	0.0238	8437206	0.0213	0.0025	8437206	<0.060	0.060	8437488
Total Antimony (Sb)	mg/L	0.0475	8437206	0.0455	0.00010	8437206	0.0509	0.00040	8437488
Total Arsenic (As)	mg/L	0.00728	8437206	0.00733	0.00010	8437206	0.00856	0.00040	8437488
Total Barium (Ba)	mg/L	0.0726	8437206	0.0720	0.00010	8437206	0.0888	0.0010	8437488
Total Beryllium (Be)	mg/L	<0.000050	8437206	<0.000050	0.000050	8437206	<0.00020	0.00020	8437488
Total Bismuth (Bi)	mg/L	<0.000025	8437206	<0.000025	0.000025	8437206	<0.00020	0.00020	8437488
Total Boron (B)	mg/L	<0.050	8437206	<0.050	0.050	8437206	<0.20	0.20	8437488
Total Cadmium (Cd)	mg/L	0.0113	8437206	0.0112	0.000025	8437206	0.0115	0.00010	8437488
Total Chromium (Cr)	mg/L	<0.00050	8437206	<0.00050	0.00050	8437206	<0.0020	0.0020	8437488
Total Cobalt (Co)	mg/L	0.00179	8437206	0.00178	0.000025	8437206	0.00207	0.00020	8437488
Total Copper (Cu)	mg/L	0.387	8437206	0.396	0.00025	8437206	0.599	0.0020	8437488
Total Iron (Fe)	mg/L	0.236	8437206	0.239	0.0050	8437206	0.53	0.10	8437488
Total Lead (Pb)	mg/L	0.0810	8437206	0.0810	0.000025	8437206	0.153	0.00040	8437488
Total Lithium (Li)	mg/L	0.0110	8437206	0.0100	0.0025	8437206	0.011	0.010	8437488
Total Manganese (Mn)	mg/L	0.417	8437206	0.426	0.00025	8437206	0.443	0.0020	8437488
Total Molybdenum (Mo)	mg/L	0.0891	8437206	0.0915	0.00025	8437206	0.0708	0.0010	8437488
Total Nickel (Ni)	mg/L	0.00769	8437206	0.00780	0.00010	8437206	0.0090	0.0020	8437488
Total Phosphorus (P)	mg/L	0.078	8437206	0.096	0.010	8437206			
Total Selenium (Se)	mg/L	1.74	8437206	1.76	0.00020	8437206	1.89	0.00080	8437488
Total Silicon (Si)	mg/L	1.82	8437206	1.81	0.25	8437206	2.2	1.0	8437488
Total Silver (Ag)	mg/L	0.00624	8437206	0.00633	0.000025	8437206	0.00243	0.00020	8437488
Total Strontium (Sr)	mg/L	2.28	8437206	2.28	0.00025	8437206	3.14	0.0010	8437488
Total Thallium (Tl)	mg/L	0.00104	8437206	0.00105	0.000010	8437206	0.000954	0.000040	8437488
Total Tin (Sn)	mg/L	<0.0010	8437206	<0.0010	0.0010	8437206	<0.0040	0.0040	8437488
Total Titanium (Ti)	mg/L	<0.0025	8437206	<0.0025	0.0025	8437206	<0.040	0.040	8437488
Total Uranium (U)	mg/L	0.000521	8437206	0.000526	0.000010	8437206	0.00058	0.00010	8437488
Total Vanadium (V)	mg/L	<0.0010	8437206	<0.0010	0.0010	8437206	<0.0040	0.0040	8437488
Total Zinc (Zn)	mg/L	1.29	8437206	1.33	0.00050	8437206	1.53	0.020	8437488
Total Zirconium (Zr)	mg/L	<0.00050	8437206	<0.00050	0.00050	8437206	<0.0020	0.0020	8437488
Total Calcium (Ca)	mg/L	587	8433527	592	0.25	8433527	786	5.0	8433527

RDL = Reportable Detection Limit

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Maxxam Job #: B690932
Report Date: 2016/10/21

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		PT7748		PT7749			PT7750		
Sampling Date		2016/10/12 16:12		2016/10/12 16:31			2016/10/12 16:45		
COC Number		08428402		08428402			08428402		
	UNITS	**T1**	**QC Batch**	**T2**	**RDL**	**QC Batch**	**T3**	**RDL**	**QC Batch**
Total Magnesium (Mg)	mg/L	2.59	8433527	2.65	0.25	8433527	<5.0	5.0	8433527
Total Potassium (K)	mg/L	45.2	8433527	45.8	0.25	8433527	60.4	5.0	8433527
Total Sodium (Na)	mg/L	166	8433527	172	0.25	8433527	236	5.0	8433527
Total Sulphur (S)	mg/L	772	8433527	782	15	8433527	1040	60	8433527
RDL = Reportable Detection Limit									

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Maxxam Job #: B690932
Report Date: 2016/10/21

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample PT7748-07 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PT7748-06 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.
Sample PT7749-05 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PT7749-05 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PT7749-04 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.
Sample PT7750-05 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PT7750-05 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.
Sample PT7750-04 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.

Sample PT7749, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample PT7750, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B690932
Report Date: 2016/10/21

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8434170	Bromide (Br)	2016/10/17	101	78 - 120	98	80 - 120	<0.010	mg/L	NC	20
8434493	Orthophosphate (P)	2016/10/15	103	80 - 120	92	80 - 120	<0.0010	mg/L	1.8	20
8434545	Total Dissolved Solids	2016/10/17	101	80 - 120	88	80 - 120	<10	mg/L	1.7	20
8434581	Turbidity	2016/10/15			104	80 - 120	<0.10	NTU	4.5	20
8434964	Nitrate plus Nitrite (N)	2016/10/15	103	80 - 120	106	80 - 120	<0.0020	mg/L	NC	25
8434965	Nitrite (N)	2016/10/15	98	80 - 120	98	80 - 120	<0.0020	mg/L	NC	25
8435001	Alkalinity (PP as CaCO3)	2016/10/16					<0.50	mg/L	NC	20
8435001	Alkalinity (Total as CaCO3)	2016/10/16	N/C	80 - 120	100	80 - 120	<0.50	mg/L	NC	20
8435001	Bicarbonate (HCO3)	2016/10/16					<0.50	mg/L	NC	20
8435001	Carbonate (CO3)	2016/10/16					<0.50	mg/L	NC	20
8435001	Hydroxide (OH)	2016/10/16					<0.50	mg/L	NC	20
8435002	Conductivity	2016/10/16			99	80 - 120	1.1, RDL=1.0	uS/cm	0.23	20
8435003	pH	2016/10/16			102	97 - 103			1.6 (1)	N/A
8435661	Total Suspended Solids	2016/10/17	113	80 - 120	98	80 - 120	<4.0	mg/L	NC	20
8435669	Total Suspended Solids	2016/10/18	99	80 - 120	100	80 - 120	<4.0	mg/L	NC	20
8436130	Dissolved Organic Carbon (C)	2016/10/17	102	80 - 120	114	80 - 120	<0.50	mg/L	8.3	20
8437174	Dissolved Aluminum (Al)	2016/10/20	102	80 - 120	108	80 - 120	<0.00050	mg/L	3.2	20
8437174	Dissolved Antimony (Sb)	2016/10/20	NC	80 - 120	100	80 - 120	<0.000020	mg/L	0.48	20
8437174	Dissolved Arsenic (As)	2016/10/20	NC	80 - 120	100	80 - 120	<0.000020	mg/L	5.2	20
8437174	Dissolved Barium (Ba)	2016/10/20	NC	80 - 120	103	80 - 120	<0.000020	mg/L	0.39	20
8437174	Dissolved Beryllium (Be)	2016/10/20	95	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
8437174	Dissolved Bismuth (Bi)	2016/10/20	93	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8437174	Dissolved Boron (B)	2016/10/20	99	80 - 120	97	80 - 120	<0.010	mg/L	NC	20
8437174	Dissolved Cadmium (Cd)	2016/10/20	NC	80 - 120	100	80 - 120	<0.0000050	mg/L	1.2	20
8437174	Dissolved Chromium (Cr)	2016/10/20	92	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
8437174	Dissolved Cobalt (Co)	2016/10/20	91	80 - 120	101	80 - 120	<0.0000050	mg/L	6.8	20
8437174	Dissolved Copper (Cu)	2016/10/20	NC	80 - 120	101	80 - 120	<0.000050	mg/L	0.081	20
8437174	Dissolved Iron (Fe)	2016/10/20	NC	80 - 120	102	80 - 120	<0.0010	mg/L	2.1	20
8437174	Dissolved Lead (Pb)	2016/10/20	NC	80 - 120	100	80 - 120	<0.0000050	mg/L	0.24	20
8437174	Dissolved Lithium (Li)	2016/10/20	NC	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20
8437174	Dissolved Manganese (Mn)	2016/10/20	NC	80 - 120	100	80 - 120	<0.000050	mg/L	0.79	20
8437174	Dissolved Molybdenum (Mo)	2016/10/20	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.75	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8437174	Dissolved Nickel (Ni)	2016/10/20	NC	80 - 120	101	80 - 120	<0.000020	mg/L	0.40	20
8437174	Dissolved Phosphorus (P)	2016/10/20					<0.0020	mg/L	4.3	20
8437174	Dissolved Selenium (Se)	2016/10/20	NC	80 - 120	101	80 - 120	<0.000040	mg/L	1.1	20
8437174	Dissolved Silicon (Si)	2016/10/20					<0.050	mg/L	0.73	20
8437174	Dissolved Silver (Ag)	2016/10/20	NC	80 - 120	89	80 - 120	<0.0000050	mg/L	1.0	20
8437174	Dissolved Strontium (Sr)	2016/10/20	NC	80 - 120	97	80 - 120	<0.000050	mg/L	1.3	20
8437174	Dissolved Thallium (Tl)	2016/10/20	NC	80 - 120	97	80 - 120	<0.0000020	mg/L	13	20
8437174	Dissolved Tin (Sn)	2016/10/20	94	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
8437174	Dissolved Titanium (Ti)	2016/10/20	82	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20
8437174	Dissolved Uranium (U)	2016/10/20	100	80 - 120	102	80 - 120	<0.0000020	mg/L	0.94	20
8437174	Dissolved Vanadium (V)	2016/10/20	98	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
8437174	Dissolved Zinc (Zn)	2016/10/20	NC	80 - 120	104	80 - 120	<0.00010	mg/L	0.51	20
8437174	Dissolved Zirconium (Zr)	2016/10/20					<0.00010	mg/L	NC	20
8437206	Total Aluminum (Al)	2016/10/20	107	80 - 120	103	80 - 120	0.00059, RDL=0.00050	mg/L	1.4	20
8437206	Total Antimony (Sb)	2016/10/20	NC	80 - 120	98	80 - 120	<0.000020	mg/L	0.060	20
8437206	Total Arsenic (As)	2016/10/20	106	80 - 120	100	80 - 120	<0.000020	mg/L	0.41	20
8437206	Total Barium (Ba)	2016/10/20	NC	80 - 120	100	80 - 120	<0.000020	mg/L	3.1	20
8437206	Total Beryllium (Be)	2016/10/20	101	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
8437206	Total Bismuth (Bi)	2016/10/20	99	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8437206	Total Boron (B)	2016/10/20	101	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
8437206	Total Cadmium (Cd)	2016/10/20	98	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8437206	Total Chromium (Cr)	2016/10/20	101	80 - 120	100	80 - 120	<0.00010	mg/L	3.9	20
8437206	Total Cobalt (Co)	2016/10/20	98	80 - 120	100	80 - 120	<0.0000050	mg/L	4.0	20
8437206	Total Copper (Cu)	2016/10/20	94	80 - 120	100	80 - 120	<0.000050	mg/L	8.2	20
8437206	Total Iron (Fe)	2016/10/20	103	80 - 120	108	80 - 120	<0.0010	mg/L	NC	20
8437206	Total Lead (Pb)	2016/10/20	100	80 - 120	100	80 - 120	<0.0000050	mg/L	0	20
8437206	Total Lithium (Li)	2016/10/20	94	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20
8437206	Total Manganese (Mn)	2016/10/20	100	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20
8437206	Total Molybdenum (Mo)	2016/10/20	NC	80 - 120	99	80 - 120	<0.000050	mg/L	3.1	20
8437206	Total Nickel (Ni)	2016/10/20	96	80 - 120	99	80 - 120	<0.000020	mg/L	6.1	20
8437206	Total Phosphorus (P)	2016/10/20					<0.0020	mg/L	NC	20
8437206	Total Selenium (Se)	2016/10/20	100	80 - 120	101	80 - 120	<0.000040	mg/L	1.3	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8437206	Total Silicon (Si)	2016/10/20					<0.050	mg/L	0.46	20
8437206	Total Silver (Ag)	2016/10/20	97	80 - 120	91	80 - 120	0.0000080, RDL=0.0000050	mg/L	NC	20
8437206	Total Strontium (Sr)	2016/10/20	NC	80 - 120	97	80 - 120	<0.000050	mg/L	2.1	20
8437206	Total Thallium (Tl)	2016/10/20	98	80 - 120	95	80 - 120	<0.0000020	mg/L	NC	20
8437206	Total Tin (Sn)	2016/10/20	102	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
8437206	Total Titanium (Ti)	2016/10/20	95	80 - 120	91	80 - 120	<0.00050	mg/L	NC	20
8437206	Total Uranium (U)	2016/10/20	NC	80 - 120	101	80 - 120	<0.0000020	mg/L	1.2	20
8437206	Total Vanadium (V)	2016/10/20	100	80 - 120	99	80 - 120	<0.00020	mg/L	5.3	20
8437206	Total Zinc (Zn)	2016/10/20	97	80 - 120	100	80 - 120	<0.00010	mg/L	3.6	20
8437206	Total Zirconium (Zr)	2016/10/20					<0.00010	mg/L	NC	20
8437265	Total Ammonia (N)	2016/10/18	104	80 - 120	102	80 - 120	<0.0050	mg/L	NC	20
8437274	Total Ammonia (N)	2016/10/18	NC	80 - 120	96	80 - 120	<0.0050	mg/L	1.9	20
8437488	Total Aluminum (Al)	2016/10/18	NC	80 - 120	101	80 - 120	<0.0030	mg/L		
8437488	Total Antimony (Sb)	2016/10/18	106	80 - 120	103	80 - 120	<0.000020	mg/L		
8437488	Total Arsenic (As)	2016/10/18	109	80 - 120	102	80 - 120	<0.000020	mg/L		
8437488	Total Barium (Ba)	2016/10/18	NC	80 - 120	102	80 - 120	<0.000050	mg/L		
8437488	Total Beryllium (Be)	2016/10/18	113	80 - 120	107	80 - 120	<0.000010	mg/L		
8437488	Total Bismuth (Bi)	2016/10/18	95	80 - 120	97	80 - 120	<0.000010	mg/L		
8437488	Total Boron (B)	2016/10/18	NC	80 - 120	104	80 - 120	<0.010	mg/L		
8437488	Total Cadmium (Cd)	2016/10/18	91	80 - 120	102	80 - 120	<0.0000050	mg/L		
8437488	Total Chromium (Cr)	2016/10/18	97	80 - 120	100	80 - 120	<0.00010	mg/L		
8437488	Total Cobalt (Co)	2016/10/18	91	80 - 120	100	80 - 120	<0.000010	mg/L		
8437488	Total Copper (Cu)	2016/10/18	85	80 - 120	105	80 - 120	<0.00010	mg/L		
8437488	Total Iron (Fe)	2016/10/18	NC	80 - 120	103	80 - 120	<0.0050	mg/L		
8437488	Total Lead (Pb)	2016/10/18	100	80 - 120	97	80 - 120	<0.000020	mg/L		
8437488	Total Lithium (Li)	2016/10/18	NC	80 - 120	99	80 - 120	<0.00050	mg/L		
8437488	Total Manganese (Mn)	2016/10/18	NC	80 - 120	98	80 - 120	<0.00010	mg/L		
8437488	Total Molybdenum (Mo)	2016/10/18	NC	80 - 120	100	80 - 120	<0.000050	mg/L		
8437488	Total Nickel (Ni)	2016/10/18	86	80 - 120	101	80 - 120	<0.00010	mg/L		
8437488	Total Selenium (Se)	2016/10/18	102	80 - 120	104	80 - 120	<0.000040	mg/L		
8437488	Total Silicon (Si)	2016/10/18					<0.050	mg/L		
8437488	Total Silver (Ag)	2016/10/18	106	80 - 120	107	80 - 120	<0.000010	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8437488	Total Strontium (Sr)	2016/10/18	NC	80 - 120	98	80 - 120	<0.000050	mg/L		
8437488	Total Thallium (Tl)	2016/10/18	99	80 - 120	86	80 - 120	<0.0000020	mg/L		
8437488	Total Tin (Sn)	2016/10/18	102	80 - 120	100	80 - 120	<0.00020	mg/L		
8437488	Total Titanium (Ti)	2016/10/18	NC	80 - 120	98	80 - 120	<0.0020	mg/L		
8437488	Total Uranium (U)	2016/10/18	109	80 - 120	99	80 - 120	<0.0000050	mg/L		
8437488	Total Vanadium (V)	2016/10/18	99	80 - 120	99	80 - 120	<0.00020	mg/L		
8437488	Total Zinc (Zn)	2016/10/18	NC	80 - 120	107	80 - 120	<0.0010	mg/L		
8437488	Total Zirconium (Zr)	2016/10/18					<0.00010	mg/L		
8437523	Strong Acid Dissoc. Cyanide (CN)	2016/10/18	102	80 - 120	101	80 - 120	<0.00050	mg/L	1.7	20
8437530	Weak Acid Dissoc. Cyanide (CN)	2016/10/18			99	80 - 120	<0.00050	mg/L		
8438934	Dissolved Phosphorus (P)	2016/10/18			95	80 - 120	<0.0020	mg/L		
8438940	Total Phosphorus (P)	2016/10/18	91	80 - 120	89	80 - 120	<0.0020	mg/L	NC	20
8438942	Dissolved Phosphorus (P)	2016/10/18			89	80 - 120	<0.0020	mg/L	7.9	20
8439038	Fluoride (F)	2016/10/19	NC	80 - 120	98	80 - 120	0.014, RDL=0.010	mg/L	0	20
8439661	Acidity (pH 4.5)	2016/10/19					<0.50	mg/L	NC	20
8439661	Acidity (pH 8.3)	2016/10/19			106	80 - 120	0.70, RDL=0.50	mg/L	NC	20
8439666	Acidity (pH 4.5)	2016/10/19					<0.50	mg/L	NC	20
8439666	Acidity (pH 8.3)	2016/10/19			106	80 - 120	0.50, RDL=0.50	mg/L	NC	20
8440154	Dissolved Phosphorus (P)	2016/10/20					<0.0020	mg/L		
8440204	Dissolved Chloride (Cl)	2016/10/20	NC	80 - 120	103	80 - 120	<1.0	mg/L	1.1	20
8440207	Dissolved Sulphate (SO4)	2016/10/20	NC	80 - 120	105	80 - 120	<1.0	mg/L	3.1	20
8442437	Dissolved Aluminum (Al)	2016/10/21			102	80 - 120	<0.00050	mg/L		
8442437	Dissolved Iron (Fe)	2016/10/21			97	80 - 120	<0.0010	mg/L		
8442437	Dissolved Lead (Pb)	2016/10/21			100	80 - 120	<0.0000050	mg/L		
8442437	Dissolved Silver (Ag)	2016/10/21			100	80 - 120	<0.0000050	mg/L		
8442437	Dissolved Thallium (Tl)	2016/10/21			98	80 - 120	<0.0000020	mg/L		
8442897	Dissolved Phosphorus (P)	2016/10/21			96	80 - 120	<0.0020	mg/L		

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Maxxam Job #: B690932
Report Date: 2016/10/21

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8442909	Total Phosphorus (P)	2016/10/21			96	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

(1) pH result is less than the lowest calibration standard of pH 4.00

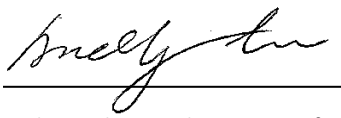
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

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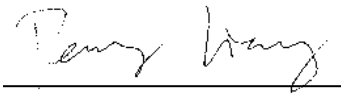
YUKON ZINC CORPORATION

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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

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A Bureau Veritas Group Company

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Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

08428402

BY FCD-00077/05

age ____ of ____

AT) Required

Invoice Information	Report Information (if differs from invoice)	Project Information
Company Name: Yukon Zinc Corporation	Company Name:	Quotation #:
Contact Name: Alex Wu	Contact Name:	P.O. #/ AFE#:
Address: 705 - 1030 West Georgia Street	Address:	Project #:
Vancouver PC: V6E 2Y3	PC:	Site Location:
Phone: 604-684-5474	Phone:	Site #:
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By:

☑ Regular TAT 5 days (Most analyses)

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)

☐ Same Day ☐ 2 Days ☐ 1 Day ☐ 3 Days

Date Required:

Rush Confirmation #:

Regulatory Criteria	Special Instructions
☐ BC CSR Soil ☐ BC CSR Water	☐ Return Cooler
☐ CCME (Specify) ☐ Other (Specify)	☐ Ship Sample Bottles (Please Specify)
☐ Drinking Water ☐ BC Water Quality	

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

LABORATORY USE ONLY

CUSTODY SEAL Y / N

COOLER TEMPERATURES

Present	Intact	
IA		3.3.3
		1-

COOLING MEDIA PRESENT: Y / N

COMMENTS

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
	Bottle						
	Preservative						
	Filtered						
1	L1				Water	7	
2	W9				Water	7	
3	W22				Water	6	
4	W31				Water	7	
5	W71				Water	6	
6	W72				Water	6	
7	W73				Water	6	
8	W80				Water	6	
9	W82				Water	7	
10	T1		16 10 12	16:12	Water	7	
11	T2		16 10 12	16:31	Water	7	
12	T3		16 10 12	16:45	Water	7	
13							

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Kevin Unrau	16/10/13	0900			
	/ /	0900	Laurel Bethune	2016/10/14	14:10

RECEIVED IN WHITEHORSE
BY: 8y MOB 1230
2016-10-13

TEMP: 2 / 2 / 2

B690932_COC

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Your C.O.C. #: 08432220

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
Whitehorse
Suite 705-1030 W. Georgia St
Vancouver, BC
CANADA V6E 2Y3

Report Date: 2016/12/07
Report #: R2313052
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6A8035
Received: 2016/12/01, 14:05

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	5	N/A	2016/12/02	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	5	2016/12/02	2016/12/02	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	5	N/A	2016/12/02	BBY6SOP-00011	SM 22 4500-Cl- E m
Conductance - water	5	N/A	2016/12/02	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	5	N/A	2016/12/02	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2016/12/07	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	5	N/A	2016/12/06	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2016/12/07	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2016/12/06	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	1	N/A	2016/12/07	BBY7SOP-00002	EPA 6020B R2 m
Ammonia-N (Preserved)	5	N/A	2016/12/03	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	5	N/A	2016/12/02	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	5	N/A	2016/12/02	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	5	N/A	2016/12/06	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	4	N/A	2016/12/02	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	5	N/A	2016/12/02	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	5	N/A	2016/12/02	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	4	N/A	2016/12/02	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2016/12/05	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	4	2016/12/02	2016/12/03	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2016/12/02	2016/12/05	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	5	2016/12/02	2016/12/02	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - Low Level	5	N/A	2016/12/02	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	5	2016/12/05	2016/12/06	BBY6SOP-00034	SM 22 2540 D
Turbidity	5	N/A	2016/12/02	BBY6SOP-00027	SM 22 2130 B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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Your C.O.C. #: 08432220

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
Whitehorse
Suite 705-1030 W. Georgia St
Vancouver, BC
CANADA V6E 2Y3

Report Date: 2016/12/07
Report #: R2313052
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6A8035
Received: 2016/12/01, 14:05

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing.

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.

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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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		QE2284	QE2285			QE2286			QE2287		
Sampling Date		2016/11/29 09:32	2016/11/29 14:27			2016/11/29 14:20			2016/11/29 11:21		
COC Number		08432220	08432220			08432220			08432220		
	UNITS	MW05-5A	MW05-6A	RDL	QC Batch	MW05-6B	RDL	QC Batch	MW06-9S	RDL	QC Batch
Misc. Inorganics											
Fluoride (F)	mg/L	2.20	0.036	0.010	8492216	0.130	0.010	8492216	0.790	0.010	8492216
Calculated Parameters											
Filter and HNO3 Preservation	N/A	FIELD	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE		N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.23	0.20	8491717	<0.20	0.20	8491717	0.24	0.20	8491717
Misc. Inorganics											
Dissolved Hardness (CaCO3)	mg/L	269	88.1	0.50	8491715	78.4	0.50	8491715		0.50	8491715
Acidity (pH 4.5)	mg/L	<0.50	<0.50	0.50	8492278	<0.50	0.50	8492278	<0.50	0.50	8492278
Alkalinity (Total as CaCO3)	mg/L	232	86.3	0.50	8492358	69.1	0.50	8492358	96.2	0.50	8492358
Acidity (pH 8.3)	mg/L	7.56	1.50	0.50	8492278	2.65	0.50	8492278	0.55	0.50	8492278
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	0.50	8492358	<0.50	0.50	8492358	<0.50	0.50	8492358
Bicarbonate (HCO3)	mg/L	283	105	0.50	8492358	84.3	0.50	8492358	117	0.50	8492358
Carbonate (CO3)	mg/L	<0.50	<0.50	0.50	8492358	<0.50	0.50	8492358	<0.50	0.50	8492358
Hydroxide (OH)	mg/L	<0.50	<0.50	0.50	8492358	<0.50	0.50	8492358	<0.50	0.50	8492358
Anions											
Orthophosphate (P)	mg/L	0.0021	0.0043	0.0010	8491638	0.77 (1)	0.010	8491638	0.064	0.0010	8491638
Dissolved Sulphate (SO4)	mg/L	37.5	8.08	0.50	8493898	16.9	0.50	8494601	28.5	0.50	8493898
Dissolved Chloride (Cl)	mg/L	0.53	<0.50	0.50	8493896	<0.50	0.50	8493896	<0.50	0.50	8493896
Nutrients											
Dissolved Phosphorus (P)	mg/L	0.0038	0.0051	0.0020	8491658	0.766 (1)	0.020	8491658	0.0737	0.0020	8491658
Total Ammonia (N)	mg/L	0.11	0.033	0.0050	8491293	0.042	0.0050	8491293	0.043	0.0050	8491293
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.23 (2)	0.20	8493337	<0.20 (2)	0.20	8493337	0.24 (2)	0.20	8493337
Nitrite (N)	mg/L	<0.20 (2)	<0.20 (2)	0.20	8493338	<0.20 (2)	0.20	8493338	<0.20 (2)	0.20	8493338
Total Phosphorus (P)	mg/L	0.0230	0.0081	0.0020	8491986	0.837 (1)	0.020	8491986	0.193	0.0020	8491986
Physical Properties											
Conductivity	uS/cm	498	181	1.0	8492357	173	1.0	8492357	246	1.0	8492357
pH	pH	8.01	7.85		8492356	7.68		8492356	7.98		8492356
Physical Properties											
Total Suspended Solids	mg/L	<4.0	<4.0	4.0	8494426	<4.0	4.0	8494426	<4.0	4.0	8494426
Total Dissolved Solids	mg/L	274	102	10	8492018	96	10	8492018	152	10	8492018
Turbidity	NTU	11.1	<0.10	0.10	8491868	5.10	0.10	8491868	0.84	0.10	8491868

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) RDL raised due to sample matrix interference.

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		QE2288		
Sampling Date		2016/11/29 12:05		
COC Number		08432220		
	UNITS	MW06-12S	RDL	QC Batch
Misc. Inorganics				
Fluoride (F)	mg/L	0.970	0.010	8492216
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Nitrate (N)	mg/L	<0.20	0.20	8491717
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	404	0.50	8491715
Acidity (pH 4.5)	mg/L	<0.50	0.50	8492278
Alkalinity (Total as CaCO3)	mg/L	130	0.50	8492358
Acidity (pH 8.3)	mg/L	2.24	0.50	8492278
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8492358
Bicarbonate (HCO3)	mg/L	159	0.50	8492358
Carbonate (CO3)	mg/L	<0.50	0.50	8492358
Hydroxide (OH)	mg/L	<0.50	0.50	8492358
Anions				
Orthophosphate (P)	mg/L	0.0010	0.0010	8491638
Dissolved Sulphate (SO4)	mg/L	265 (1)	5.0	8493898
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	8493896
Nutrients				
Dissolved Phosphorus (P)	mg/L	0.0055	0.0020	8491658
Total Ammonia (N)	mg/L	0.16	0.0050	8491293
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	0.20	8493337
Nitrite (N)	mg/L	<0.20 (2)	0.20	8493338
Total Phosphorus (P)	mg/L	0.0236	0.0020	8491986
Physical Properties				
Conductivity	uS/cm	760	1.0	8492357
pH	pH	7.99		8492356
Physical Properties				
Total Suspended Solids	mg/L	<4.0	4.0	8494426
Total Dissolved Solids	mg/L	526	10	8493294
Turbidity	NTU	21.1	0.10	8491868

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) RDL raised due to sample matrix interference.

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QE2284	QE2285	QE2286	QE2287		
Sampling Date		2016/11/29 09:32	2016/11/29 14:27	2016/11/29 14:20	2016/11/29 11:21		
COC Number		08432220	08432220	08432220	08432220		
	UNITS	MW05-5A	MW05-6A	MW05-6B	MW06-9S	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	0.010	8495341
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	mg/L	0.00452	0.00175	0.00419		0.00050	8494019
Dissolved Antimony (Sb)	mg/L	0.00354	0.000027	0.000744		0.000020	8494019
Dissolved Arsenic (As)	mg/L	0.00478	0.000048	0.00560		0.000020	8494019
Dissolved Barium (Ba)	mg/L	0.0435	0.160	0.0414		0.000020	8494019
Dissolved Beryllium (Be)	mg/L	0.000022	<0.000010	<0.000010		0.000010	8494019
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050		0.0000050	8494019
Dissolved Boron (B)	mg/L	<0.010	<0.010	<0.010		0.010	8494019
Dissolved Cadmium (Cd)	mg/L	0.0000090	<0.0000050	0.0000260		0.0000050	8494019
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00092	<0.00010		0.00010	8494019
Dissolved Cobalt (Co)	mg/L	0.000150	0.0000070	0.000274		0.0000050	8494019
Dissolved Copper (Cu)	mg/L	0.000181	0.000252	0.000273		0.000050	8494019
Dissolved Iron (Fe)	mg/L	1.06	0.0011	1.49		0.0010	8494019
Dissolved Lead (Pb)	mg/L	0.000160	0.0000120	0.000654		0.0000050	8494019
Dissolved Lithium (Li)	mg/L	0.00299	<0.00050	<0.00050		0.00050	8494019
Dissolved Manganese (Mn)	mg/L	0.0729	0.000065	0.149		0.000050	8494019
Dissolved Molybdenum (Mo)	mg/L	0.00692	0.000221	0.00136		0.000050	8494019
Dissolved Nickel (Ni)	mg/L	0.00124	0.000070	0.00103		0.000020	8494019
Dissolved Phosphorus (P)	mg/L	0.0143	0.0084	0.820		0.0020	8494019
Dissolved Selenium (Se)	mg/L	<0.000040	0.000629	<0.000040		0.000040	8494019
Dissolved Silicon (Si)	mg/L	3.82	4.07	6.56		0.050	8494019
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050		0.0000050	8494019
Dissolved Strontium (Sr)	mg/L	0.129	0.0439	0.0256		0.000050	8494019
Dissolved Thallium (Tl)	mg/L	0.0000050	<0.0000020	<0.0000020		0.0000020	8494019
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020		0.00020	8494019
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050		0.00050	8494019
Dissolved Uranium (U)	mg/L	0.0268	0.000277	0.000106		0.0000020	8494019
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020		0.00020	8494019
Dissolved Zinc (Zn)	mg/L	0.0237	0.00065	0.00601		0.00010	8494019
Dissolved Zirconium (Zr)	mg/L	0.00051	<0.00010	<0.00010		0.00010	8494019
Dissolved Calcium (Ca)	mg/L	71.7	30.9	26.2		0.050	8491716
Dissolved Magnesium (Mg)	mg/L	21.8	2.65	3.13		0.050	8491716
Dissolved Potassium (K)	mg/L	1.37	0.700	1.06		0.050	8491716
RDL = Reportable Detection Limit							

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QE2284	QE2285	QE2286	QE2287		
Sampling Date		2016/11/29 09:32	2016/11/29 14:27	2016/11/29 14:20	2016/11/29 11:21		
COC Number		08432220	08432220	08432220	08432220		
	UNITS	**MW05-5A**	**MW05-6A**	**MW05-6B**	**MW06-9S**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	0.308	1.27	2.01		0.050	8491716
Dissolved Sulphur (S)	mg/L	12.1	<3.0	5.2		3.0	8491716
RDL = Reportable Detection Limit							

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QE2288		
Sampling Date		2016/11/29 12:05		
COC Number		08432220		
	UNITS	MW06-12S	RDL	QC Batch
ANIONS				
Bromide (Br)	mg/L	<1.0	1.0	8495341
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.00163	0.00050	8494019
Dissolved Antimony (Sb)	mg/L	0.000271	0.000020	8494019
Dissolved Arsenic (As)	mg/L	0.00139	0.000020	8494019
Dissolved Barium (Ba)	mg/L	0.0207	0.000020	8494019
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	8494019
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	8494019
Dissolved Boron (B)	mg/L	<0.010	0.010	8494019
Dissolved Cadmium (Cd)	mg/L	<0.0000050	0.0000050	8494019
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	8494019
Dissolved Cobalt (Co)	mg/L	0.000454	0.0000050	8494019
Dissolved Copper (Cu)	mg/L	0.000059	0.000050	8494019
Dissolved Iron (Fe)	mg/L	1.68	0.0010	8494019
Dissolved Lead (Pb)	mg/L	0.0000530	0.0000050	8494019
Dissolved Lithium (Li)	mg/L	0.00521	0.00050	8494019
Dissolved Manganese (Mn)	mg/L	0.164	0.000050	8494019
Dissolved Molybdenum (Mo)	mg/L	0.000830	0.000050	8494019
Dissolved Nickel (Ni)	mg/L	0.00109	0.000020	8494019
Dissolved Phosphorus (P)	mg/L	0.0209	0.0020	8494019
Dissolved Selenium (Se)	mg/L	<0.000040	0.000040	8494019
Dissolved Silicon (Si)	mg/L	4.35	0.050	8494019
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	8494019
Dissolved Strontium (Sr)	mg/L	0.531	0.000050	8494019
Dissolved Thallium (Tl)	mg/L	0.0000020	0.0000020	8494019
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	8494019
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	8494019
Dissolved Uranium (U)	mg/L	0.0217	0.0000020	8494019
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	8494019
Dissolved Zinc (Zn)	mg/L	0.00116	0.00010	8494019
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8494019
Dissolved Calcium (Ca)	mg/L	126	0.050	8491716
Dissolved Magnesium (Mg)	mg/L	21.4	0.050	8491716
Dissolved Potassium (K)	mg/L	4.09	0.050	8491716
RDL = Reportable Detection Limit				

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QE2288		
Sampling Date		2016/11/29 12:05		
COC Number		08432220		
	UNITS	**MW06-12S**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	5.59	0.050	8491716
Dissolved Sulphur (S)	mg/L	86.5	3.0	8491716
RDL = Reportable Detection Limit				

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.0°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample QE2288 [MW06-12S] Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Results relate only to the items tested.

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Maxxam Job #: B6A8035
Report Date: 2016/12/07

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8491293	Total Ammonia (N)	2016/12/03	110	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
8491638	Orthophosphate (P)	2016/12/02	100	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20
8491658	Dissolved Phosphorus (P)	2016/12/02	94	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20
8491868	Turbidity	2016/12/02			100	80 - 120	<0.10	NTU	0.90	20
8491986	Total Phosphorus (P)	2016/12/02	92	80 - 120	96	80 - 120	<0.0020	mg/L		
8492018	Total Dissolved Solids	2016/12/03	102	80 - 120	86	80 - 120	<10	mg/L	0	20
8492216	Fluoride (F)	2016/12/02	89	80 - 120	102	80 - 120	0.010, RDL=0.010	mg/L	1.1	20
8492278	Acidity (pH 4.5)	2016/12/02					<0.50	mg/L		
8492278	Acidity (pH 8.3)	2016/12/02			99	80 - 120	<0.50	mg/L		
8492356	pH	2016/12/02			101	97 - 103				
8492357	Conductivity	2016/12/02			101	80 - 120	<1.0	uS/cm		
8492358	Alkalinity (PP as CaCO3)	2016/12/02					<0.50	mg/L		
8492358	Alkalinity (Total as CaCO3)	2016/12/02			94	80 - 120	<0.50	mg/L		
8492358	Bicarbonate (HCO3)	2016/12/02					<0.50	mg/L		
8492358	Carbonate (CO3)	2016/12/02					<0.50	mg/L		
8492358	Hydroxide (OH)	2016/12/02					<0.50	mg/L		
8493294	Total Dissolved Solids	2016/12/05	NC	80 - 120	100	80 - 120	<10	mg/L	7.3	20
8493337	Nitrate plus Nitrite (N)	2016/12/02	103	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
8493338	Nitrite (N)	2016/12/02	99	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25
8493896	Dissolved Chloride (Cl)	2016/12/02			95	80 - 120	<0.50	mg/L		
8493898	Dissolved Sulphate (SO4)	2016/12/02			99	80 - 120	0.58, RDL=0.50	mg/L		
8494019	Dissolved Aluminum (Al)	2016/12/06	104	80 - 120	101	80 - 120	<0.00050	mg/L		
8494019	Dissolved Antimony (Sb)	2016/12/06	NC	80 - 120	93	80 - 120	<0.000020	mg/L		
8494019	Dissolved Arsenic (As)	2016/12/06	104	80 - 120	93	80 - 120	<0.000020	mg/L		
8494019	Dissolved Barium (Ba)	2016/12/06	NC	80 - 120	94	80 - 120	<0.000020	mg/L		
8494019	Dissolved Beryllium (Be)	2016/12/06	99	80 - 120	96	80 - 120	<0.000010	mg/L		
8494019	Dissolved Bismuth (Bi)	2016/12/06	88	80 - 120	89	80 - 120	<0.0000050	mg/L		
8494019	Dissolved Boron (B)	2016/12/06	NC	80 - 120	90	80 - 120	<0.010	mg/L		
8494019	Dissolved Cadmium (Cd)	2016/12/06	92	80 - 120	95	80 - 120	<0.0000050	mg/L		
8494019	Dissolved Chromium (Cr)	2016/12/06	95	80 - 120	92	80 - 120	<0.00010	mg/L		
8494019	Dissolved Cobalt (Co)	2016/12/06	87	80 - 120	90	80 - 120	<0.0000050	mg/L		
8494019	Dissolved Copper (Cu)	2016/12/06	88	80 - 120	93	80 - 120	<0.000050	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8494019	Dissolved Iron (Fe)	2016/12/06	NC	80 - 120	106	80 - 120	<0.0010	mg/L		
8494019	Dissolved Lead (Pb)	2016/12/06	94	80 - 120	93	80 - 120	<0.0000050	mg/L		
8494019	Dissolved Lithium (Li)	2016/12/06	NC	80 - 120	94	80 - 120	<0.00050	mg/L		
8494019	Dissolved Manganese (Mn)	2016/12/06	NC	80 - 120	93	80 - 120	0.000093, RDL=0.000050	mg/L		
8494019	Dissolved Molybdenum (Mo)	2016/12/06	NC	80 - 120	95	80 - 120	<0.000050	mg/L		
8494019	Dissolved Nickel (Ni)	2016/12/06	86	80 - 120	92	80 - 120	<0.000020	mg/L		
8494019	Dissolved Phosphorus (P)	2016/12/06					<0.0020	mg/L		
8494019	Dissolved Selenium (Se)	2016/12/06	103	80 - 120	100	80 - 120	<0.000040	mg/L		
8494019	Dissolved Silicon (Si)	2016/12/06					<0.050	mg/L	0.77	20
8494019	Dissolved Silver (Ag)	2016/12/06	88	80 - 120	85	80 - 120	<0.0000050	mg/L		
8494019	Dissolved Strontium (Sr)	2016/12/06	NC	80 - 120	88	80 - 120	<0.000050	mg/L		
8494019	Dissolved Thallium (Tl)	2016/12/06	85	80 - 120	83	80 - 120	<0.0000020	mg/L		
8494019	Dissolved Tin (Sn)	2016/12/06	99	80 - 120	94	80 - 120	<0.00020	mg/L		
8494019	Dissolved Titanium (Ti)	2016/12/06	115	80 - 120	87	80 - 120	<0.00050	mg/L		
8494019	Dissolved Uranium (U)	2016/12/06	103	80 - 120	97	80 - 120	<0.0000020	mg/L		
8494019	Dissolved Vanadium (V)	2016/12/06	NC	80 - 120	92	80 - 120	<0.00020	mg/L		
8494019	Dissolved Zinc (Zn)	2016/12/06	90	80 - 120	95	80 - 120	<0.00010	mg/L		
8494019	Dissolved Zirconium (Zr)	2016/12/06					<0.00010	mg/L		
8494426	Total Suspended Solids	2016/12/06	101	80 - 120	102	80 - 120	<4.0	mg/L	NC	20
8494601	Dissolved Sulphate (SO4)	2016/12/05	118	80 - 120	95	80 - 120	<0.50	mg/L	5.6	20
8495341	Bromide (Br)	2016/12/06	104	78 - 120	101	80 - 120	<0.010	mg/L	NC	20

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

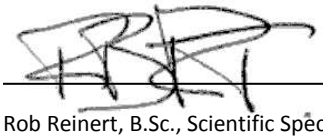
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B6A8035
Report Date: 2016/12/07

YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

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



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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08432220

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CHAIN OF CUSTODY RECORD

BBY FCD-00077/05

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665 4566

COC #:

Page ___ of ___

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Yukon Zinc Corporation	Company Name:	Quotation #:	☑ Regular TAT 5 days (Most analyses)
Contact Name: Alex Wu	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 705 - 1030 West Georgia Street	Address:	Project #:	Rush TAT (Surcharges will be applied)
Vancouver PC V6E 2Y3	PC:	Site Location:	☐ Same Day ☐ 2 Days
Phone: 604-684-5674	Phone:	Site #:	☐ 1 Day ☐ 3 Days
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By:	Date Required:

Regulatory Criteria	Special Instructions	Rush Confirmation #:
☐ BC CSR Soil ☐ BC CSR Water ☐ CCME (Specify) ☐ Other (Specify) ☐ Drinking Water ☐ BC Water Quality	☐ Return Cooler ☐ Ship Sample Bottles (Please Specify)	LABORATORY USE ONLY: CUSTODY SEAL Y / N (Present / Intact); COOLER TEMPERATURES 1.0 / 1.1 / 1.1; COOLING MEDIA PRESENT Y / N; COMMENTS

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested: VOC/VPH; MTBE; BTEX/VPH; TEH; EPH; LEPH/HEPH; PAH; F2 - F4; BTEX/ F1; CCME/BC; Preserved?; Filtered?; Dissolved Metals; Preserved?; Filtered?; Dissolved Mercury; Field Preserved?; Total Metals; Field Preserved?; Total Mercury; Sulphate; Fluoride; Chloride; COD; BOD; TDS; Conductivity; pH; Alkalinity; Ammonia; Nitrate; Nitrite; Package A; Total Phosphate and Ammonia; # OF CONTAINERS SUBMITTED; HOLD - DO NOT ANALYZE

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix																																
	Bottle										50 mL Falcon tube														120mL plastic	1 L plastic + 120 mL	120 mL plastic											
	Preservative										HNO3														HCl/H	-	HNO3											
	Filtered										✓														✓	✓	✓											
1	MW05-1A				Water						x														x	xx	x			5								
2	MW05-1B				Water						x														x	xx	x			5								
3	MW05-2A				Water						x														x	xx	x			5								
4	MW05-2B				Water						x														x	xx	x			5								
5	MW05-3A				Water						x														x	xx	x			5								
6	MW05-3B				Water						x														x	xx	x			5								
7	MW05-4A				Water						x														x	xx	x			5								
8	MW05-4B				Water						x														x	xx	x			5								
9	MW05-5A		2016/11/29	0935	Water						x														x	xx	x			5								
10	MW05-5B				Water						x														x	xx	x			5								
11	MW05-6A		2016/11/29	1427	Water						x														x	xx	x			5								
12	MW05-6B		2016/11/29	1420	Water						x														x	xx	x			5								
13	MW05-7B				Water						x														x	xx	x			5								
14	MW06-8S				Water						x														x	xx	x			5								
15	MW06-8M				Water						x														x	xx	x			5								
16	MW06-8D				Water						x														x	xx	x			5								
17	MW06-9S		2016/11/29	1101	Water						✓														x	xx	x			5								DISS. metal 580.160
18	MW06-9M				Water						x														x	xx	x			5								
19	MW06-10S				Water						x														x	xx	x			5								
20	MW06-10M				Water						x														x	xx	x			5								
21	MW06-10D				Water						x														x	xx	x			5								
22	MW06-11S				Water						x														x	xx	x			5								
23	MW06-12S	[illegible]	2016/11/29	1205	Water						x														x	xx	x			5								
24	MW06-13				Water						x														x	xx	x			5								

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
[illegible]	2016/11/30	0800	Laurie Berthier	2016/12/01	14:05	B6A8035

B6A8035_COC

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Your C.O.C. #: 08434129

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
Whitehorse
Suite 705-1030 W. Georgia St
Vancouver, BC
CANADA V6E 2Y3

Report Date: 2016/12/23
Report #: R2322347
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6B2438
Received: 2016/12/16, 12:40

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	2	N/A	2016/12/19	BBY6SOP-00037	SM 22 2310 B m
Alkalinity - Water	2	2016/12/17	2016/12/17	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	2	N/A	2016/12/19	BBY6SOP-00011	SM 22 4500-Cl- E m
Conductance - water	2	N/A	2016/12/17	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	2	N/A	2016/12/21	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	2	N/A	2016/12/22	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	2	N/A	2016/12/21	BBY WI-00033	Auto Calc
Bromide as Bromine (Br) by ICPMS	2	N/A	2016/12/20	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	2	N/A	2016/12/21	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	2	N/A	2016/12/21	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2016/12/22	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	2	N/A	2016/12/22	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	2	N/A	2016/12/19	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	2	N/A	2016/12/17	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	2	N/A	2016/12/17	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	2	N/A	2016/12/21	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	2	N/A	2016/12/17	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	2	N/A	2016/12/17	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab (low level)	2	N/A	2016/12/17	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	2	N/A	2016/12/19	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	2	2016/12/21	2016/12/22	BBY6SOP-00033	SM 22 2540 C m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/12/17	2016/12/17	BBY6SOP-00013	SM 22 4500-P E m
Phosphorus-P (LL Tot, dissolved) - UF/UP	1	2016/12/23	2016/12/23	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - Low Level	1	N/A	2016/12/17	BBY6SOP-00013	SM 22 4500-P E m
Total Phosphorus - Low Level	1	N/A	2016/12/23	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	1	2016/12/20	2016/12/21	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids	1	2016/12/21	2016/12/22	BBY6SOP-00034	SM 22 2540 D
Turbidity	2	N/A	2016/12/17	BBY6SOP-00027	SM 22 2130 B m

Remarks:

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Your C.O.C. #: 08434129

Attention:Wolverine Env. Reporting List

YUKON ZINC CORPORATION
Whitehorse
Suite 705-1030 W. Georgia St
Vancouver, BC
CANADA V6E 2Y3

Report Date: 2016/12/23
Report #: R2322347
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6B2438
Received: 2016/12/16, 12:40

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing.

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.
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) The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Graham Rudkin, Project Manager, Environmental
Email: GRudkin@maxxam.ca
Phone# (604)638-5926 Ext:5926

==========

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Maxxam Job #: B6B2438
Report Date: 2016/12/23

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		QG8178		QG8179		
Sampling Date		2016/12/14 10:25		2016/12/14 10:51		
COC Number		08434129		08434129		
	UNITS	W72	QC Batch	W73	RDL	QC Batch
Misc. Inorganics						
Fluoride (F)	mg/L	0.190	8509895	0.063	0.010	8509895
Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE
Total Hardness (CaCO3)	mg/L	254	8505035	138	0.50	8505035
Nitrate (N)	mg/L	<0.20	8505836	<0.20	0.20	8505836
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	259	8506077	136	0.50	8506077
Acidity (pH 4.5)	mg/L	<0.50	8507652	<0.50	0.50	8507652
Alkalinity (Total as CaCO3)	mg/L	213	8506323	124	0.50	8506323
Acidity (pH 8.3)	mg/L	<0.50	8507652	<0.50	0.50	8507652
Alkalinity (PP as CaCO3)	mg/L	<0.50	8506323	<0.50	0.50	8506323
Bicarbonate (HCO3)	mg/L	260	8506323	151	0.50	8506323
Carbonate (CO3)	mg/L	<0.50	8506323	<0.50	0.50	8506323
Hydroxide (OH)	mg/L	<0.50	8506323	<0.50	0.50	8506323
Anions						
Orthophosphate (P)	mg/L	0.017	8506594	0.0038	0.0010	8506594
Dissolved Sulphate (SO4)	mg/L	66.1	8508011	25.3	0.50	8508013
Dissolved Chloride (Cl)	mg/L	0.76	8508010	<0.50	0.50	8508012
Nutrients						
Dissolved Phosphorus (P)	mg/L	0.0306 (1)	8512664	0.0061	0.0020	8506613
Total Ammonia (N)	mg/L	0.063	8507379	0.071	0.0050	8507379
Nitrate plus Nitrite (N)	mg/L	<0.20 (2)	8509172	<0.20 (2)	0.20	8509176
Nitrite (N)	mg/L	<0.20 (2)	8509175	<0.20 (2)	0.20	8509177
Total Phosphorus (P)	mg/L	0.0254	8512662	0.0150	0.0020	8506614
Physical Properties						
Conductivity	uS/cm	490	8506322	280	1.0	8506322
pH	pH	8.14	8506321	8.08		8506321
Physical Properties						
Total Suspended Solids	mg/L	<4.0	8508633	<4.0	4.0	8509682
Total Dissolved Solids	mg/L	310	8508678	168	10	8508678

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

(2) RDL raised due to sample matrix interference.

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Maxxam Job #: B6B2438
Report Date: 2016/12/23

YUKON ZINC CORPORATION

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		QG8178		QG8179		
Sampling Date		2016/12/14 10:25		2016/12/14 10:51		
COC Number		08434129		08434129		
	UNITS	**W72**	**QC Batch**	**W73**	**RDL**	**QC Batch**
Turbidity	NTU	0.57	8506396	0.42	0.10	8506396
RDL = Reportable Detection Limit						

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QG8178	QG8179		
Sampling Date		2016/12/14 10:25	2016/12/14 10:51		
COC Number		08434129	08434129		
	UNITS	W72	W73	RDL	QC Batch
ANIONS					
Bromide (Br)	mg/L	<0.010	<0.010	0.010	8508641
Dissolved Metals by ICPMS					
Dissolved Aluminum (Al)	mg/L	0.0217 (1)	0.00224	0.00050	8507676
Dissolved Antimony (Sb)	mg/L	0.000133	0.000114	0.000020	8507676
Dissolved Arsenic (As)	mg/L	0.00188 (1)	0.000183	0.000020	8507676
Dissolved Barium (Ba)	mg/L	0.115	0.0897	0.000020	8507676
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	0.000010	8507676
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	0.0000050	8507676
Dissolved Boron (B)	mg/L	<0.010	<0.010	0.010	8507676
Dissolved Cadmium (Cd)	mg/L	0.000414 (1)	0.0000070	0.0000050	8507676
Dissolved Chromium (Cr)	mg/L	0.00011	0.00029	0.00010	8507676
Dissolved Cobalt (Co)	mg/L	0.000122 (1)	0.0000080	0.0000050	8507676
Dissolved Copper (Cu)	mg/L	0.000664 (1)	0.000478	0.000050	8507676
Dissolved Iron (Fe)	mg/L	0.191 (1)	0.0194	0.0010	8507676
Dissolved Lead (Pb)	mg/L	0.00102 (1)	0.0000120	0.0000050	8507676
Dissolved Lithium (Li)	mg/L	0.00273	0.00092	0.00050	8507676
Dissolved Manganese (Mn)	mg/L	0.273	0.00187	0.000050	8507676
Dissolved Molybdenum (Mo)	mg/L	0.00370	0.000569	0.000050	8507676
Dissolved Nickel (Ni)	mg/L	0.00371	0.000548	0.000020	8507676
Dissolved Phosphorus (P)	mg/L	0.0222 (1)	0.0040	0.0020	8507676
Dissolved Selenium (Se)	mg/L	0.00130	0.000953	0.000040	8507676
Dissolved Silicon (Si)	mg/L	5.14	4.47	0.050	8507676
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	0.0000050	8507676
Dissolved Strontium (Sr)	mg/L	0.337	0.151	0.000050	8507676
Dissolved Thallium (Tl)	mg/L	0.0000020	<0.0000020	0.0000020	8507676
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	0.00020	8507676
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	0.00050	8507676
Dissolved Uranium (U)	mg/L	0.00191	0.000791	0.0000020	8507676
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	0.00020	8507676
Dissolved Zinc (Zn)	mg/L	0.0481	0.00050	0.00010	8507676
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00010	8507676
Dissolved Calcium (Ca)	mg/L	66.2	35.6	0.050	8505057
Dissolved Magnesium (Mg)	mg/L	22.8	11.3	0.050	8505057

RDL = Reportable Detection Limit
(1) Dissolved greater than total. Reanalysis yields similar results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QG8178	QG8179		
Sampling Date		2016/12/14 10:25	2016/12/14 10:51		
COC Number		08434129	08434129		
	UNITS	W72	W73	RDL	QC Batch
Dissolved Potassium (K)	mg/L	0.925	0.327	0.050	8505057
Dissolved Sodium (Na)	mg/L	2.28	1.31	0.050	8505057
Dissolved Sulphur (S)	mg/L	20.3	7.9	3.0	8505057
Total Metals by ICPMS					
Total Aluminum (Al)	mg/L	0.00438	0.00957	0.00050	8508619
Total Antimony (Sb)	mg/L	0.000127	0.000103	0.000020	8508619
Total Arsenic (As)	mg/L	0.00149	0.000255	0.000020	8508619
Total Barium (Ba)	mg/L	0.107	0.0815	0.000020	8508619
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	0.000010	8508619
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	0.0000050	8508619
Total Boron (B)	mg/L	<0.010	<0.010	0.010	8508619
Total Cadmium (Cd)	mg/L	0.000242	<0.0000050	0.0000050	8508619
Total Chromium (Cr)	mg/L	<0.00010	0.00030	0.00010	8508619
Total Cobalt (Co)	mg/L	0.0000940	0.0000130	0.0000050	8508619
Total Copper (Cu)	mg/L	0.000367	0.000572	0.000050	8508619
Total Iron (Fe)	mg/L	0.0726	0.0683	0.0010	8508619
Total Lead (Pb)	mg/L	0.000138	0.0000580	0.0000050	8508619
Total Lithium (Li)	mg/L	0.00254	0.00089	0.00050	8508619
Total Manganese (Mn)	mg/L	0.252	0.0122	0.000050	8508619
Total Molybdenum (Mo)	mg/L	0.00351	0.000505	0.000050	8508619
Total Nickel (Ni)	mg/L	0.00364	0.000599	0.000020	8508619
Total Phosphorus (P)	mg/L	0.0165	0.0093	0.0020	8508619
Total Selenium (Se)	mg/L	0.00123	0.00103	0.000040	8508619
Total Silicon (Si)	mg/L	4.78	4.66	0.050	8508619
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	0.0000050	8508619
Total Strontium (Sr)	mg/L	0.305	0.149	0.000050	8508619
Total Thallium (Tl)	mg/L	<0.0000020	<0.0000020	0.0000020	8508619
Total Tin (Sn)	mg/L	<0.00020	<0.00020	0.00020	8508619
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	0.00050	8508619
Total Uranium (U)	mg/L	0.00192	0.000761	0.0000020	8508619
Total Vanadium (V)	mg/L	<0.00020	<0.00020	0.00020	8508619
Total Zinc (Zn)	mg/L	0.0419	0.00074	0.00010	8508619
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00010	8508619
Total Calcium (Ca)	mg/L	63.7	36.3	0.050	8505798
Total Magnesium (Mg)	mg/L	23.1	11.6	0.050	8505798
RDL = Reportable Detection Limit					

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Maxxam Job #: B6B2438
Report Date: 2016/12/23

YUKON ZINC CORPORATION

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		QG8178	QG8179		
Sampling Date		2016/12/14 10:25	2016/12/14 10:51		
COC Number		08434129	08434129		
	UNITS	W72	W73	RDL	QC Batch
Total Potassium (K)	mg/L	0.873	0.320	0.050	8505798
Total Sodium (Na)	mg/L	2.36	1.36	0.050	8505798
Total Sulphur (S)	mg/L	19.6	8.5	3.0	8505798
RDL = Reportable Detection Limit					

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B6B2438
Report Date: 2016/12/23

YUKON ZINC CORPORATION

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.7°C

Results relate only to the items tested.

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Maxxam Job #: B6B2438
Report Date: 2016/12/23

QUALITY ASSURANCE REPORT

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8506321	pH	2016/12/17			101	97 - 103			0.12	N/A
8506322	Conductivity	2016/12/17			99	80 - 120	1.1, RDL=1.0	uS/cm	0	20
8506323	Alkalinity (PP as CaCO3)	2016/12/17					<0.50	mg/L	NC	20
8506323	Alkalinity (Total as CaCO3)	2016/12/17	NC	80 - 120	100	80 - 120	<0.50	mg/L	1.2	20
8506323	Bicarbonate (HCO3)	2016/12/17					<0.50	mg/L	1.2	20
8506323	Carbonate (CO3)	2016/12/17					<0.50	mg/L	NC	20
8506323	Hydroxide (OH)	2016/12/17					<0.50	mg/L	NC	20
8506396	Turbidity	2016/12/17			103	80 - 120	<0.10	NTU	NC	20
8506594	Orthophosphate (P)	2016/12/17	110	80 - 120	102	80 - 120	<0.0010	mg/L	0.93	20
8506613	Dissolved Phosphorus (P)	2016/12/17	NC	80 - 120	98	80 - 120	<0.0020	mg/L		
8506614	Total Phosphorus (P)	2016/12/17	90	80 - 120	97	80 - 120	<0.0020	mg/L	3.5	20
8507379	Total Ammonia (N)	2016/12/19	107	80 - 120	103	80 - 120	<0.0050	mg/L	2.3	20
8507652	Acidity (pH 4.5)	2016/12/19					<0.50	mg/L	NC	20
8507652	Acidity (pH 8.3)	2016/12/19			103	80 - 120	<0.50	mg/L	NC	20
8507676	Dissolved Aluminum (Al)	2016/12/21	103	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
8507676	Dissolved Antimony (Sb)	2016/12/21	98	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
8507676	Dissolved Arsenic (As)	2016/12/21	99	80 - 120	99	80 - 120	<0.000020	mg/L	8.9	20
8507676	Dissolved Barium (Ba)	2016/12/21	NC	80 - 120	106	80 - 120	<0.000020	mg/L	1.7	20
8507676	Dissolved Beryllium (Be)	2016/12/21	98	80 - 120	108	80 - 120	<0.000010	mg/L	NC	20
8507676	Dissolved Bismuth (Bi)	2016/12/21	93	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
8507676	Dissolved Boron (B)	2016/12/21	NC	80 - 120	101	80 - 120	<0.010	mg/L	0.45	20
8507676	Dissolved Cadmium (Cd)	2016/12/21	98	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8507676	Dissolved Chromium (Cr)	2016/12/21	97	80 - 120	99	80 - 120	<0.00010	mg/L	2.6	20
8507676	Dissolved Cobalt (Co)	2016/12/21	93	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
8507676	Dissolved Copper (Cu)	2016/12/21	89	80 - 120	100	80 - 120	<0.000050	mg/L	2.6	20
8507676	Dissolved Iron (Fe)	2016/12/21	100	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20
8507676	Dissolved Lead (Pb)	2016/12/21	93	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
8507676	Dissolved Lithium (Li)	2016/12/21	101	80 - 120	111	80 - 120	<0.00050	mg/L	NC	20
8507676	Dissolved Manganese (Mn)	2016/12/21	95	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20
8507676	Dissolved Molybdenum (Mo)	2016/12/21	NC	80 - 120	107	80 - 120	<0.000050	mg/L	3.9	20
8507676	Dissolved Nickel (Ni)	2016/12/21	92	80 - 120	101	80 - 120	<0.000020	mg/L	5.5	20
8507676	Dissolved Phosphorus (P)	2016/12/21					<0.0020	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8507676	Dissolved Selenium (Se)	2016/12/21	NC	80 - 120	99	80 - 120	<0.000040	mg/L	2.2	20
8507676	Dissolved Silicon (Si)	2016/12/21					<0.050	mg/L	2.4	20
8507676	Dissolved Silver (Ag)	2016/12/21	99	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
8507676	Dissolved Strontium (Sr)	2016/12/21	NC	80 - 120	97	80 - 120	<0.000050	mg/L	3.0	20
8507676	Dissolved Thallium (Tl)	2016/12/21	93	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
8507676	Dissolved Tin (Sn)	2016/12/21	97	80 - 120	104	80 - 120	<0.00020	mg/L	NC	20
8507676	Dissolved Titanium (Ti)	2016/12/21	97	80 - 120	107	80 - 120	<0.00050	mg/L	NC	20
8507676	Dissolved Uranium (U)	2016/12/21	99	80 - 120	112	80 - 120	<0.0000020	mg/L	4.6	20
8507676	Dissolved Vanadium (V)	2016/12/21	100	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
8507676	Dissolved Zinc (Zn)	2016/12/21	95	80 - 120	104	80 - 120	<0.00010	mg/L	NC	20
8507676	Dissolved Zirconium (Zr)	2016/12/21					<0.00010	mg/L	NC	20
8508010	Dissolved Chloride (Cl)	2016/12/19	107	80 - 120	107	80 - 120	0.64, RDL=0.50	mg/L	3.7	20
8508011	Dissolved Sulphate (SO4)	2016/12/19	102	80 - 120	85	80 - 120	<0.50	mg/L	NC	20
8508012	Dissolved Chloride (Cl)	2016/12/19	110	80 - 120	105	80 - 120	<0.50	mg/L	NC	20
8508013	Dissolved Sulphate (SO4)	2016/12/19	NC	80 - 120	97	80 - 120	0.77, RDL=0.50	mg/L	0.063	20
8508619	Total Aluminum (Al)	2016/12/22	105	80 - 120	106	80 - 120	<0.00050	mg/L		
8508619	Total Antimony (Sb)	2016/12/22	111	80 - 120	104	80 - 120	<0.000020	mg/L		
8508619	Total Arsenic (As)	2016/12/22	92	80 - 120	100	80 - 120	<0.000020	mg/L		
8508619	Total Barium (Ba)	2016/12/22	NC	80 - 120	104	80 - 120	<0.000020	mg/L		
8508619	Total Beryllium (Be)	2016/12/22	96	80 - 120	100	80 - 120	<0.000010	mg/L		
8508619	Total Bismuth (Bi)	2016/12/22	93	80 - 120	98	80 - 120	<0.0000050	mg/L		
8508619	Total Boron (B)	2016/12/22	108	80 - 120	101	80 - 120	<0.010	mg/L		
8508619	Total Cadmium (Cd)	2016/12/22	91	80 - 120	97	80 - 120	<0.0000050	mg/L		
8508619	Total Chromium (Cr)	2016/12/22	94	80 - 120	99	80 - 120	<0.00010	mg/L		
8508619	Total Cobalt (Co)	2016/12/22	92	80 - 120	99	80 - 120	<0.0000050	mg/L		
8508619	Total Copper (Cu)	2016/12/22	95	80 - 120	98	80 - 120	<0.000050	mg/L		
8508619	Total Iron (Fe)	2016/12/22	NC	80 - 120	101	80 - 120	<0.0010	mg/L		
8508619	Total Lead (Pb)	2016/12/22	96	80 - 120	104	80 - 120	<0.0000050	mg/L		
8508619	Total Lithium (Li)	2016/12/22	99	80 - 120	102	80 - 120	<0.00050	mg/L		
8508619	Total Manganese (Mn)	2016/12/22	NC	80 - 120	97	80 - 120	<0.000050	mg/L		
8508619	Total Molybdenum (Mo)	2016/12/22	NC	80 - 120	103	80 - 120	<0.000050	mg/L		
8508619	Total Nickel (Ni)	2016/12/22	57 (1)	80 - 120	98	80 - 120	<0.000020	mg/L		

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QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8508619	Total Phosphorus (P)	2016/12/22					<0.0020	mg/L		
8508619	Total Selenium (Se)	2016/12/22	96	80 - 120	100	80 - 120	<0.000040	mg/L		
8508619	Total Silicon (Si)	2016/12/22					<0.050	mg/L		
8508619	Total Silver (Ag)	2016/12/22	96	80 - 120	102	80 - 120	<0.0000050	mg/L		
8508619	Total Strontium (Sr)	2016/12/22	NC	80 - 120	95	80 - 120	<0.000050	mg/L		
8508619	Total Thallium (Tl)	2016/12/22	92	80 - 120	98	80 - 120	<0.0000020	mg/L		
8508619	Total Tin (Sn)	2016/12/22	103	80 - 120	105	80 - 120	<0.00020	mg/L		
8508619	Total Titanium (Ti)	2016/12/22	91	80 - 120	109	80 - 120	<0.00050	mg/L		
8508619	Total Uranium (U)	2016/12/22	105	80 - 120	107	80 - 120	<0.0000020	mg/L		
8508619	Total Vanadium (V)	2016/12/22	101	80 - 120	100	80 - 120	<0.00020	mg/L		
8508619	Total Zinc (Zn)	2016/12/22	NC	80 - 120	99	80 - 120	<0.00010	mg/L		
8508619	Total Zirconium (Zr)	2016/12/22					<0.00010	mg/L		
8508633	Total Suspended Solids	2016/12/21	104	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
8508641	Bromide (Br)	2016/12/20	105	78 - 120	98	80 - 120	<0.010	mg/L	NC	20
8508678	Total Dissolved Solids	2016/12/22	NC	80 - 120	96	80 - 120	10, RDL=10	mg/L	4.0	20
8509172	Nitrate plus Nitrite (N)	2016/12/17	102	80 - 120	108	80 - 120	<0.0020	mg/L	0.77	25
8509175	Nitrite (N)	2016/12/17	97	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
8509176	Nitrate plus Nitrite (N)	2016/12/17			106	80 - 120	<0.0020	mg/L		
8509177	Nitrite (N)	2016/12/17			102	80 - 120	<0.0020	mg/L		
8509682	Total Suspended Solids	2016/12/22	103	80 - 120	101	80 - 120	<4.0	mg/L	NC	20
8509895	Fluoride (F)	2016/12/21	100	80 - 120	98	80 - 120	0.012, RDL=0.010	mg/L	0	20
8512662	Total Phosphorus (P)	2016/12/23	96	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20

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Maxxam Job #: B6B2438
Report Date: 2016/12/23

QUALITY ASSURANCE REPORT(CONT'D)

YUKON ZINC CORPORATION

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8512664	Dissolved Phosphorus (P)	2016/12/23			103	80 - 120	<0.0020	mg/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.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

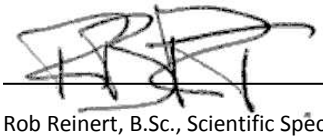
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Maxxam Job #: B6B2438
Report Date: 2016/12/23

YUKON ZINC CORPORATION

VALIDATION SIGNATURE PAGE

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



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

CHAIN OF CUSTODY REC

08434129

00077/05

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5. Toll Free (800) 665-8566

COC #:

Invoice Information	Report Information (if differs from invoice)	Project Information (where ap
Company Name: Yukon Zinc Corporation	Company Name:	Quotation #:
Contact Name: Alex Wu	Contact Name:	P.O. #/ AFE#:
Address: 705 - 1030 West Georgia Street	Address:	Project #:
Vancouver PC: V6E 2Y3	PC:	Site Location:
Phone: 604-684-5474	Phone:	Site #:
Email: alex.wu@yukonzinc.com	Email: YZC Group	Sampled By:

Regular TAT 5 days (Most analyses)

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)

☐ Same Day ☐ 2 Days ☐ 1 Day ☐ 3 Days

Date Required:

Rush Confirmation #:

Regulatory Criteria

☐ BC CSR Soil ☐ BC CSR Water ☐ CCME (Specify) ☐ Other (Specify) ☐ Drinking Water ☐ BC Water Quality

Special Instructions

☐ Return Cooler ☐ Ship Sample Bottles (Please Specify)

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	BTEX/VPH	EPH	PAH	CCME-PHC	Dissolved Metals	Total Metals	Total Mercury	Chloride	TSS	pH	Nitrate	Package A	Total Phosphate and Ammonia	DOC	Total and WAD Cyanide	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
Bottle									250 mL Falcon tube	250 mL Falcon tube					120mL plastic	1 L plastic + 120 mL	120 mL plastic	120 mL plastic	120 mL plastic		
Preservative									HNO3	HNO3					H2SO4	-	H2SO4	H2SO4	NaOH		
Filtered									✓	-					-	-	-	✓	-		
1	L1			Water					x	x					x	xx	x	x		7	
2	W9			Water					x	x					x	xx	x	x		7	
3	W22			Water					x	x					x	xx	x			6	
4	W31			Water					x	x					x	xx	x	x		7	
5	W71			Water					x	x					x	xx	x			6	
6	W72		2016/12/14 1025	Water					x	x					x	xx	x			6	
7	W73		2016/12/14 1051	Water					x	x					x	xx	x			6	
8	W80			Water					x	x					x	xx	x			6	
9	W82			Water					x	x					x	xx	x	x		7	
10	T1			Water					x	x					x	xx	x		x	7	
11	T2			Water					x	x					x	xx	x		x	7	
12	T3			Water					x	x					x	xx	x		x	7	
13																					

LABORATORY USE ONLY

CUSTODY SEAL Y / N

COOLER TEMPERATURES

Present	Intact	
		11.6

COOLING MEDIA PRESENT Y / N

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Mike Shoppard	Dec 14, 16	1150	JWATHNE NOV	2016/12/16	12:40

B6B2438_COC