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### MOUNT POLLEY MINING CORPORATION (MPMC) PUBLIC LIAISON COMMITTEE (PLC) MEETING NOTES

### Meeting Details

Date: April 1, 2020

Time: 9:00 am – 11:00 am

Location: Conference Call

### PLC Members and Guests

Member	Present	Call-in	Organization
Bee Hooker			Big Lake Community
Bill Carruthers			Williams Lake Community
Lyn Anglin (LA)		х	Consultant to Imperial Metals
Christine McLean (CM)		x	Mitchell Bay Community
Claudine Kadonaga		х	Likely Business
Mathieu O'Leary			Mount Polley Mining Corporation
Dale Reimer (DR)		x	Mount Polley Mining Corporation
Carol Danyluk			Ministry of Environment and Climate Change Strategy
Don Parsons (DP)		х	Imperial Metals
Doug Watt (DW)		x	Likely Citizen
Edna Boston			Xatsull - Soda Creek Indian Band
Alan Gibson (AG)		х	Ministry of Environment and Climate Change Strategy
Jackie Sarginson		x	MLA Cariboo North Coralee Oaks Office
Jaylyn Byer		x	Williams Lake Chamber of Commerce
Linda Bartsch			Horsefly Business
Lisa Kraus (LK)		x	Likely Community



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Lowell Constable			Ministry of Energy, Mines, and Petroleum Resources
Maureen LeBourdais		х	Cariboo Regional District
Micky McIntosh			Public
Richard Holmes (RH)		х	MoreheadCommunity
Steve Hocquard		х	Horsefly Community
Gabe Holmes (GH)		х	Mount Polley Mining Corporation
Steve Forseth		х	Cariboo Regional District
Walt Cobb			City of Williams Lake
Alicia Lalonde (AL)		x	DWB Consulting
Abhirosh Chandran		х	Ministry of Environment
Aaron Higgenbottom			Williams Lake Indian Band
Guests	Onsite	Call-in	Organization
Mike Stinson (MS)		х	Xatsull – Soda Creek Indian Band
Jim Miller-Tait (JMT)		x	Imperial Metals
Lee Nikl (LN)		х	Golder
Kym Keogh (KK)		х	Ministry of Environment



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### Conference Call Meeting/Presentations 9:00 am to 11:00 am

### **Meeting Notes**

Welcome and Roll Call on Phone and Roundtable Introduction

### Additions to Agenda

- Exploration Update -Jim Miller-Tait
- Monitoring in Quesnel Lake Kim Keogh

### Approval of Agenda

Approved

### Presentations (see 2020-04-01 PLC Meeting Presentation)

- COVID-19 Update
- Care and Maintenance Update
- Environmental Monitoring Update
- Remediation Update
- Discharge/Water Treatment Plant Update
- ENV Compliance Review

#### COVID 19 Update – Gabriel Holmes

- Care and Maintenance is continuing as normal, all employees are still coming to work
- Precautions being taken at the mine site include social distancing, frequent hand washing, safe sneeze/cough etiquette, wearing masks while traveling in vehicle with others, staying home if feeling sick, keeping hands away from eyes, nose and mouth and keeping work areas and tools clean and hygienic.
- Everyone must fill out a COVID-19 questionnaire prior to entering the site and will be turned away if they show symptoms of illness.

#### Questions:

DW: Glad to see procedures in place. I have a general comment. It bothers me to see people walking around without face masks. I recommend that people wearface masks when interacting with the public. Is there any possibility that the mine site could make face masks available to senior staff and other community members?



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DR: We did have some masks left after shutdown; however, masks were requested from the Williams Lake Hospital and later, the Soda Creek Indian Band. Masks were donated to the William's Lake Hospital and unfortunately, we have none to spare on site at this time.

#### Care and Maintenance Update – Gabriel Holmes and Dale Reimer

- Care and Maintenance operations include snow removal, daily inspections of water management infrastructure, monitoring of the Water Treatment Plant (WTP) to ensure proper operation, environmental monitoring including water sampling, snowpack measurements, reporting, and planning for the upcoming months, maintenance of site power/communications, CANMAG operations and a barge move. Care and Maintenance has been challenging this year due to the amount of snow and blowing snow. We've had to plow the same stretch of road multiple times in a day to keep it open. Activities planned for Care and Maintenance have been postponed as staff have been dedicated to snow removal.
  - Site power and communications issues have been occurring at the mine site for the last 4 months. Power is back up and running however, there is limited uploading/downloading capacity at the mine site and the mine is unable to receive incoming calls. Please email us if you need to get in touch.
  - CANMAG is currently transporting magnetite from the mine site. CANMAG has also requested more feed from MPMC and therefore, MPMC is looking into incorporating generation of magnetite concentrate into the movement of tailings to the Tailings Storage Facility (TSF) this summer.
  - The reclaim barge in the TSF was moved to accommodate rise in water level due to the upcoming freshet.

### Questions:

MS: Is magnetite a dry product or is it being processed?

GH: It is comparable to the concentrate that would be sent off-site. It goes through re-processing, and remilling so it does require water. There is a dewatering circuit in the recovery line, and CANMAG reuses as much of the water as possible. Water is provided from process water from TSF.

AG: Are you anticipating extra water as part of freshet with the extra snow that's fallen this year?

GH: Yes, though we are within the historic range of snowpack, we are well above the annual average, so we are anticipating more water. Not a lot of water has melted out of the snowpack and it is still snowing. A snowpack assessment is scheduled for early next week. We are approaching time of rapid melting.



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### Environmental Monitoring Update – Gabriel Holmes

- A regimented environmental monitoring program centered on permit and CEMP requirements is conducted. Regular inspections, water sampling and snowpack assessments are included in the program.
  - There are access issues resulting from the snowfall which has made sampling challenging. We are not conducting snowpack measurements twice per month but are still conducting assessments in accordance with the BC ENV snow sampling manual. The last snowfall measurement was taken on March 12. The historic average is 170mm, and as of March 1, 2020, we have 333mm on the mine site. This may cause some challenging circumstance when the snow starts to melt. If we get rapid thawing without freezing conditions, water will flood the water infrastructure. That being said, all sumps/pumps/ditches/etc. are all engineered to accommodate those flows.
  - Water sampling we've had to adjust work and scheduling for snow clearing as the roads aren't open everywhere all the time. On February 19, 2020 we sampled Polley Lake and there was 57cm of ice. We will continue collecting weekly, monthly and quarterly samples.
- Monthly and annual reporting is underway.
  - Annual report was submitted on March 31, 2020, though there were issues stitching together appendices. The full report including appendices will be submitted today.
- We have been planning for the year ahead. We have a working document that breaks down sampling requirements daily/weekly/monthly/quarterly/semi-annually to ensure that we are in compliance with the permits and CEMP.
- Reporting and planning We have an obligation to submit monthly, annual and quarterly reports (everything submitted to ENV is publicly available), the annual report has been submitted, with the exception of the appendices.

#### Questions:

AG: What is included in the annual report?

GH: All conditions required in ENV Permit 11678 and the CEMP are addressed. We have also summarized all research and specialized work completed by our consultant partners and the associated reports they've completed. Regulators can determine whether we are fulfilling our obligations based on this report. We are also obligated to submit an annual report to EMPR which details how we have met our obligations under our M-200 permit and allows us to submit any relevant information collected under that permit.



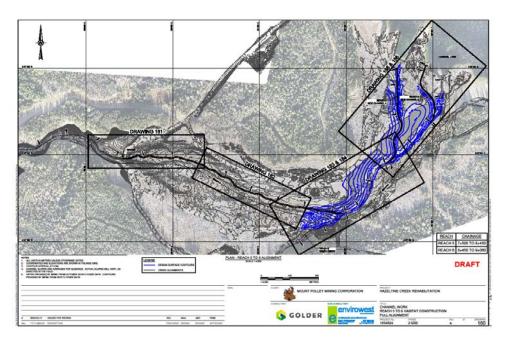
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AG: Were there any trends in water analysis in 2019? Can you provide a summary of results?

GH: Copper and phosphorus trends in Polley, Bootjack and Quesnel Lakes showed no change in 2019. There was an increasing copper trend at the WTP which will be discussed later in the presentation.

#### Remediation Update – Gabriel Holmes

- A remediation budget has been prepared for 2020.
- Draft drawings for Upper and Lower Hazeltine Creek have been reviewed and will be sent to the Habitat Remediation Working Group (HRWG).



- The upper sedimentation pond will be filled in with materials, Hazeltine Creek will join Edney Creek and the creek channel will be widened and include multiple exit points, all of which will require minimal disturbance to execute.
- Most work in 2020 will take place downstream of ditch road.
- HRWG will need to meet to discuss these draft drawings and the path forward.
- Orders have been placed for seedlings for planting in the spring of 2021.



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### Questions:

AG: Will recontouring of the creek allow for additional flow in Hazeltine Creek?

GH: The channel width in Reach 5 and 6 will be increased and the lower flood points going to be brought down. Therefore, the creek will be able to accommodate more water downstream.

AG: Will it accommodate any water that flows in from Polley Lake and the surrounding area as well as discharge into Polley Lake?

LN: Hazeltine Creek has been designed with the input of the HRWG as fish habitat. Lower Hazeltine is used by sockeye for spawning. Flow that Hazeltine Creek can take is limited by flow capacity in Upper Hazeltine Creek. Designing Hazeltine Creek as a discharge swale would compromise its function as fish habitat.

AG: Discharge of pipeline to Quesnel Lake?

LN: There is a study that's looking at the capacity of system to take water. Again, this will be built as fish habitat not as a discharge swale.

GH: We are not altering path with which discharge will move off site.

LN: Part of permit is to assess whether the creek can take additional flow, but the design of the creek is for fish habitat.

DP: Floodplain growth needs to take the additional flow. We will run the weir and control flow until the terrestrial flood plain is capable of taking normal freshet through Polley Lake.

GH: Lower floodplains have been designed to withstand significant freshet flooding. No/very little vegetation is present on them at this point. We need to control flow with the weir until vegetation has established.

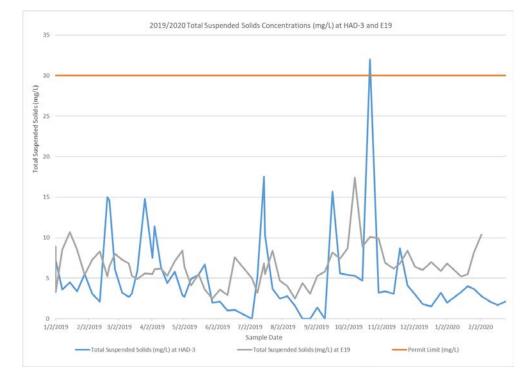
### Discharge/WTP Update – Gabriel Holmes

- There has been nearly continuous operation of the WTP in 2020 Q1.
- Shutdowns at WTP occurred due to maintenance, the barge move and a copper exceedance in January.
  - March 3 and 10, 2020 had samples come back which triggered a Level 1 Trigger (within 80% of the permit limit).
    - The WTP throughput was reduced by 20%, the Director notified and the effluent resampled immediately. An investigation into the cause of the rise in copper is underway.
    - March 24, 2020 sample had a copper concentration of 0.0161 mg/L which was less than 80% of permit limit, and the WTP resumed normal operation.



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- Feeds back into how we will address NPM going forward, ADP to be updated to reflect new NPM target in permit amendment
- Dialogue with Veolia about further training and support is ongoing.
- Changes to the ADP regarding operational details to endeavor to achieve NPM will be completed in the next couple of weeks.

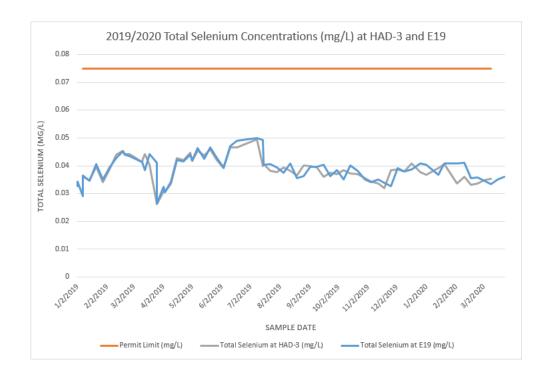


• Water treatment plant – influent (E19) vs effluent (HAD3); TSS, total copper and total selenium.

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2019/2020 Total Copper Concentrations (mg/L) at HAD-3 and E19 0.06 0.05 0.04 TOTAL COPPER (MG/L) 0.03 0.02 0.01 0 1/2/2019 21212019 312/2019 A12/2019 51212019 61212019 112/2019 91212019 31212020 81212019 1012/2019 21212020 11/2/2019 22/2/2019 1/2/2020 SAMPLE DATE Permit Limit (mg/L) Total Copper at HAD-3 (mg/L) -Total Copper at E19 (mg/L)





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### Constructed Wetland Treatment Systems

- Winterized in fall 2019
- 2019 Monitoring Report has been delivered (available in 2019 annual report) Series 1 and 2 met commissioning criteria while Series 3 was less successful and explanatory measurements were outside the commissioning criteria.
- 2020- Continued CWTS operation with support from Ensero, operations will begin when freezing temperatures have passed, continue to be fed from NW Sump and discharges to 9Km sump.

### Questions:

AG: Did we investigate what caused the Level 1 trigger?

GH: Yes, we conducted a data review and assessed the WTP operations. The data review did not show a source. The Long Ditch (LD) and South East Rock Disposal (SERD) ditches are the main water infrastructure on site transporting water to WTP and neither had high copper. The latest TSF samples had elevated copper concentrations which may be the likely culprit. We have not been tracking times or volumes of water moved from the TSF to the Till Borrow (WTP influent pond) as we should. As we move forward, we need to record when and how much water is coming from TSF better so we can determine the point source when a trigger is observed at the WTP.

AG: When they start pumping, will they let the WTP operator know so that they can add more TMT?

GH: Yes. Sample results are not received until 10 days after the sample is collected. Looking back and understanding water chemistry on that day is challenging because of those delayed results. There are only so many point sources of water on site, so we need to track this better so that we have a better understanding of where source water is coming from each day.

AG: In the Trigger Response Plan with an 80% of permit trigger you are decreasing discharge by 20% so impact to Quesnel Lake is not occurring. We are still safe at the edge of IDZ.

GH: Yes. It's just easier to make a decision when we know where the water is coming from. As part of the Trigger Response Plan, we reduce throughput in the WTP and sample immediately, and last sample collected from WTP on March 24 was 0.0161 mg/L (lowest copper value since last fall). The root cause is still under investigation. We need to look at operations of WTP and weed out operational issues.

DW: Exceedance in January from NEZ sumps- what do you see this time? What form was copper in this time? Was higher copper in the TSF a result of discharging the NEZ sumps into TSF?

GH: The NEZ sumps are pumped into Wight Pit and the exceedance in January was from the NEZ sump



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overflowing into the Long Ditch towards the WTP due to power outages. We will start plotting dissolved and total copper on WTP graphs in future PLC meetings. I'm not sure about dissolved copper at this time. I suspect high dissolved copper in TSF will not be seen but cannot confirm until lab results are received. The impact of the NEZ sump is significantly higher than any other point source on site.

LA: TSS graph- does the peak on the TSS chart correlate to the peak on the total copper graph? It would be interesting to see if those parameters are correlated.

GH: We can see a reduction in TSS with operation of the WTP. Typically, we see a response in total copper as well. Total copper has been trending upwards since September 2019, and we are trying to weed out whether it is source water or is an operational issue. Changes were made in operation of plant at that time so it could be that changes were not to our benefit. Selenium remains consistently below permit threshold.

AG: Triggers within 80% of the permit limit require reports to be sent to ENV. When you rewrite the Trigger Response Plan in the Annual Discharge Plan (ADP), when will it be submitted to us for review?

GH: The changes required are not significant, we just need to create a Standard Operating Procedure to include in the ADP. We expect that an updated ADP and Trigger Response Plan will be submitted in next 2 weeks.

RH: Have there been any temperature influences on groundwater contamination with respect to higher copper levels? Have you investigated the influence of cold weather on that?

GH: No, we have not looked at that. We would have to look at seepage data, but we do not do much seepage sampling in the winter with frozen conditions.

LN: The groundwater report shows time series of data in annual report. We do not see increases in groundwater chemistry.

RH: Based on scour in lower Hazeltine Creek, will you use tea bags for upcoming planting?

GH: Yes.

RH: Have you been able to compare growth in Hazeltine Creek with nearby timber sales areas?

GH: The sites are not comparable due to the level of disturbance that has occurred. We expect growth levels in the disturbed area from the TSF failure to be much less than the other cut block areas. A stocking survey is scheduled for this year.

LA: Have you been in touch with Katie McMahon about her test spots? Is there information to be had from the research that she's done for her thesis?

GH: Yes, there are good tidbits of information in her research. I have not been in contact with her but will reach out to her for most recent summary.



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### Permit 11678 Amendment Update - Gabriel Holmes

- New conditions are being implemented.
- Some permit conditions are under appeal Notice of Appeal was submitted before the 30-day deadline (before end of February). We have not heard back from the Environmental Appeal Board.

#### Questions:

DW: Can we get a copy of the appeal document?

DP: I will have to check if we can publicly disclose that information.

MS: If you can give it out, we would like a copy as well.

#### Environmental Compliance Review Update – Gabriel Holmes, Alan Gibson

- ENV Update- Permit 11678
  - AG: We are currently waiting to hear what we need to do about appeal, looking forward to reading annual report and Trigger Response Plan reports.
  - o Kym Keogh (KK) Monitoring Assessment and Stewardship team with ENV. Joining the PLC meeting to discuss the monitoring to be conducted this summer. Concerns have been raised about the nutrient concentrations in lake from discharge from Mount Polley mine. As a result, we have proposed monthly sampling at different sites between Hazeltine Creek and Likely at the bridge and at Mitchell Bay and Winkley Creek. The application has been submitted and we are hoping to hear soon though with COVID-19 we have no idea when/if we will be able to sample this summer. Whether we can sample is based on whether it is safe to be in the boat by ourselves and if we are able to use nitrile gloves for sampling. We may not have sampling gloves since they have been given to medical staff. We are now waiting on the COVID-19 progression to determine whether the program will go ahead.

#### Questions:

LK: FYI- Sampling at bridge has also been suspended.

GH: How often were samples collected?

LK: Monthly and usually around the 12<sup>th</sup> or 13<sup>th</sup> of the month.

DW: If people are wearing N-95 masks, they can work closer than 6 feet.

KK: We have to wait for information from executives. At this point we are not allowed to work within 6 feet of someone else or go in the field.



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AG: We are doing field work, but we are required to complete a health and safety plan with a COVID-19 section for all projects. We are obligated to follow WorkSafeBC's rules. With the sampling – if sampling cannot be conducted at the mine site, MPMC needs to communicate with ENV.

GH: If anything happens at the mine site, we will need to go home immediately and quarantine for 14 days. Sampling will still occur but may be delayed but we will communicate with ENV.

Christine: Does the mine have a plan for if monitoring must stop? What will be done with discharge into Quesnel Lake?

DR: At the moment, all we can do is hope that we can continue as normal. We have an extensive program here to eliminate the chances of anyone on site getting COVID-19. If the WTP operators contract the virus then may have to shut down the WTP.

MS: Do you have a pandemic plan? It might be a good idea to share that with everyone.

DR: Imperial Metals has a plan that has been circulated to everyone around the mine site, but I do not think it would be helpful to anyone else.

MS: It would answer some of people's questions.

DR: Don, are there any legal ramifications with sending it out?

DP: I'm not sure.

MS: It would just help answer people's questions.

DP: I will check with corporate office.

AG: The Ministry has COVID-19 updates on their compliance pages which outline what we expect to be done. If anyone has questions, look at those pages.

GH: The challenge on site is bringing anyone from outside to do monitoring without training. That will not work. Should any of us contract COVID-19, it would be a struggle to bring someone else in to cover these positions.

AG: The Ministry understands this, it happens when there is not a pandemic as well. But we expect that you collect the sample at the next available time. This situation is more difficult because we don't know how long it's going to last but we need to continue to follow the same protocols.

Action item: Don to get information about appeal and whether we can distribute information to PLC.

- EMPR Update Permit M-200
  - No one from EMPR on call



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Action item: Alicia to email Lowell Constable about EMPR's presence at PLC meetings.

#### Exploration Update-Jim Miller-Tait

• Location of stock relative to mine site

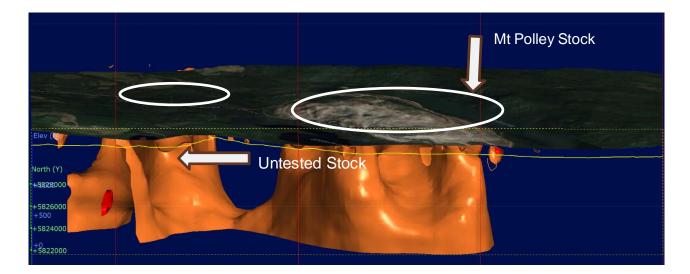


• 3D inverted magnetic survey- the upper figure shows the location compared to the Mount Polley stock; the lower figure is a computer model of the magnetic signature to depth. We are looking at 500 m depth.



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GH: The brown material underneath is the magnetic anomaly?

JMT: Yes.

DW: How does the anomaly compare to the MP stock?

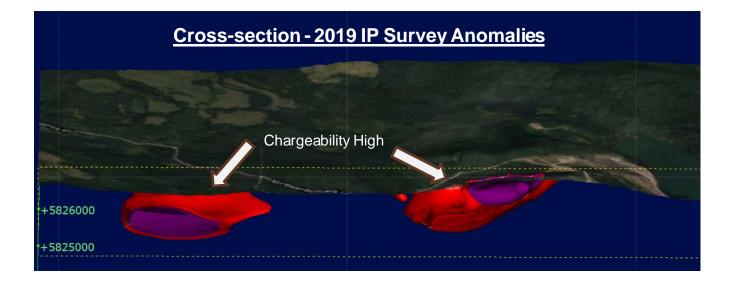
DP: We've only touched the surface in the open pit phase. There is underground potential below Wight, Cariboo and Springer Pits which is shown later in the presentation.

• IP Survey Area – white line shows the rough outline from the north end of Polley Lake to the north end of Bootjack Lake. New anomalies in the grid area are shown in the second figure. We will be focusing on these going forward.

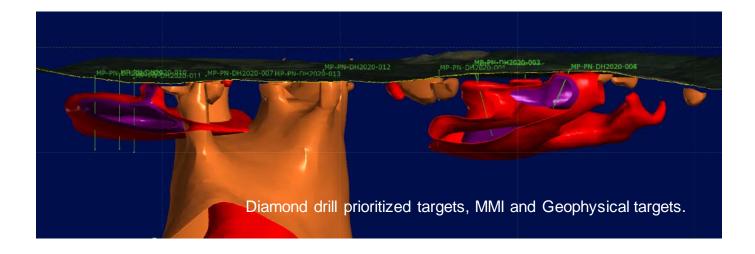




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• Combination of magnetic and chargeable high. The green labelled lines are sites of potential diamond drill holes included in the Notice of Work (NOW) that has been submitted.





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• Planning drill holes sites on existing roads and cut blocks.





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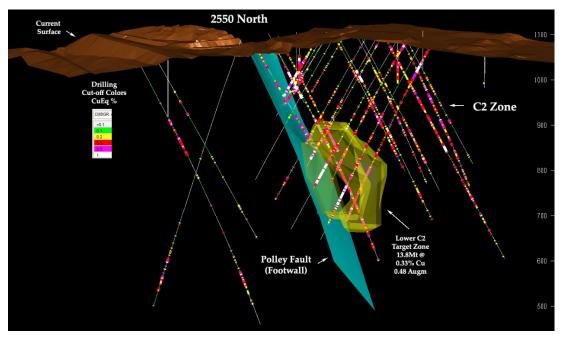
• Proposed Mine Site 3-D IP Plan- we plan to do the survey over the mine and existing bodies and compare to the new anomalies that we have identified.



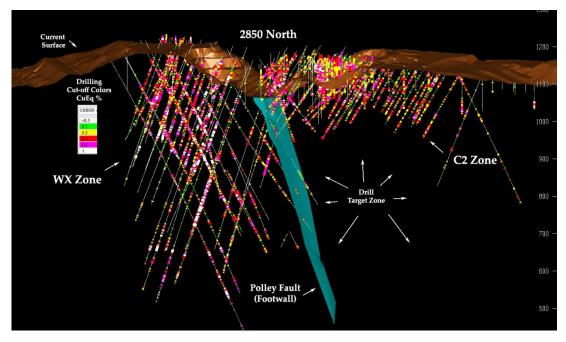


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• C2 Target for Future Diamond Drilling-This figure shows a vertical cross section and the C2 target.



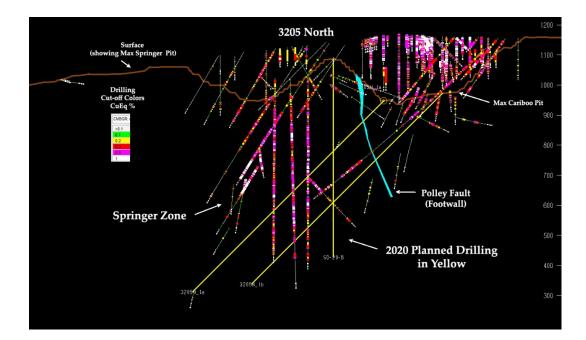
• WX and C2 Drill Targets-This figure shows the drill target zone. The Polley fault is blue.





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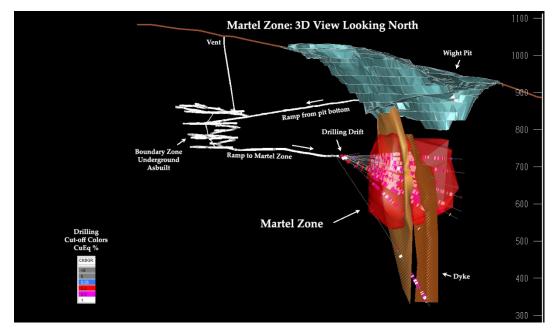
• Springer - Cariboo Pits Expansion – This figure shows that between the pits you have angle holes to fill in the existing gaps in drilling to determine if the pits can be expanded.



• Martel Underground Mine Plan - This figure shows the area under the existing Wight Pit-there is a smaller volume but greater grade of ore between the brown dikes.



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- 2020 Exploration Plans
  - o A NOW application has been submitted for work on Mineral Claims.
  - A Deemed Authorization Permit has been obtained for work in the mine permit area. We are just waiting for the snow to melt and COVID-19 to calm down.
  - Geological mapping of "new" areas.
  - o Ground truth the exploration drill targets.
  - o Plan the easiest, non-invasive access and diamond drill sites.
  - Complete 3-D IP over mine site known mineralization for new exploration and create fingerprint of known mineralized bodies.
  - o Diamond drill prioritized targets, MMI and Geophysical targets.

#### **Roundtable Discussion**

DW: At the last PLC meeting, MPMC was supposed to forward the contact information for DFO as there is community interest in input to HRWG.

GH: Lee do you know who the contact person is now?

LN: Mike Henry, the new DFO rep, has not responded to any of my emails.



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DW: Have you done any Quesnel Lake sampling through the ice?

GH: We were unable to. Ice conditions were not safe. We tentatively plan to sample Quesnel Lake this month depending on the snow conditions at lake and when the boat launch opens up.

DW: Are the Closure Plan and Phase II EEM report on Sharepoint? I could not find them.

AL: I saw both on the Sharepoint site yesterday, but I will double check and follow up with you after the meeting.

GH: Summary of action items: Don to look into permit appeal document distribution to PLC, Gabe to send Doug the DFO contact information and Alicia to email Lowell Constable and make sure the Closure Plan and Phase II EEM Report are on Sharepoint.

#### **Next Meeting Date**

• July 8, 2020 at 9:00am tentatively a call-in meeting, we would love to have everyone out at Mount Polley mine for a tour but will depend on COVID-19 situation.