

## **Metcalf, Megan MEM:EX**

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**From:** Green, Jack E ENV:EX  
**Sent:** Wednesday, September 16, 2015 4:33 PM  
**To:** Demchuk, Tania MEM:EX; McConnachie, Jennifer MEM:EX  
**Subject:** Mount Polley Inspection Reports  
**Attachments:** 2015-08-19 PE11678 Inspection Report.pdf; 2015-08-19 PE11678 Inspection Photos.pdf; 2015-08-19 PA15087 Inspection Report.pdf; 2015-08-19 PA15087 Inspection Photos.pdf

Hi Tania/Jennifer,

I just realised I forgot to cc you in on my inspection reports for Mount Polley, as promised. Sorry about that. See attached.

Give me a call if you'd like to discuss these further.

Regards,

**Jack Green**

Environmental Protection Officer  
Ministry of Environment  
Phone: 250-398-4544  
Fax: 250-398-4214

24 hour RAPP (Report All Poachers and Polluters) tip-line: 1-877-952-7277  
(Conservation Officer Service)

24 hour Spill/Environmental Emergency Reporting: 1-800-663-3456  
(Conservation Officer Service)

[www.gov.bc.ca](http://www.gov.bc.ca)

## Ministry of Environment - Photo Record Sheet

PA15087	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

Road leading to Mount Polley Mine. The mine site starts approximately where the vehicle can be seen.



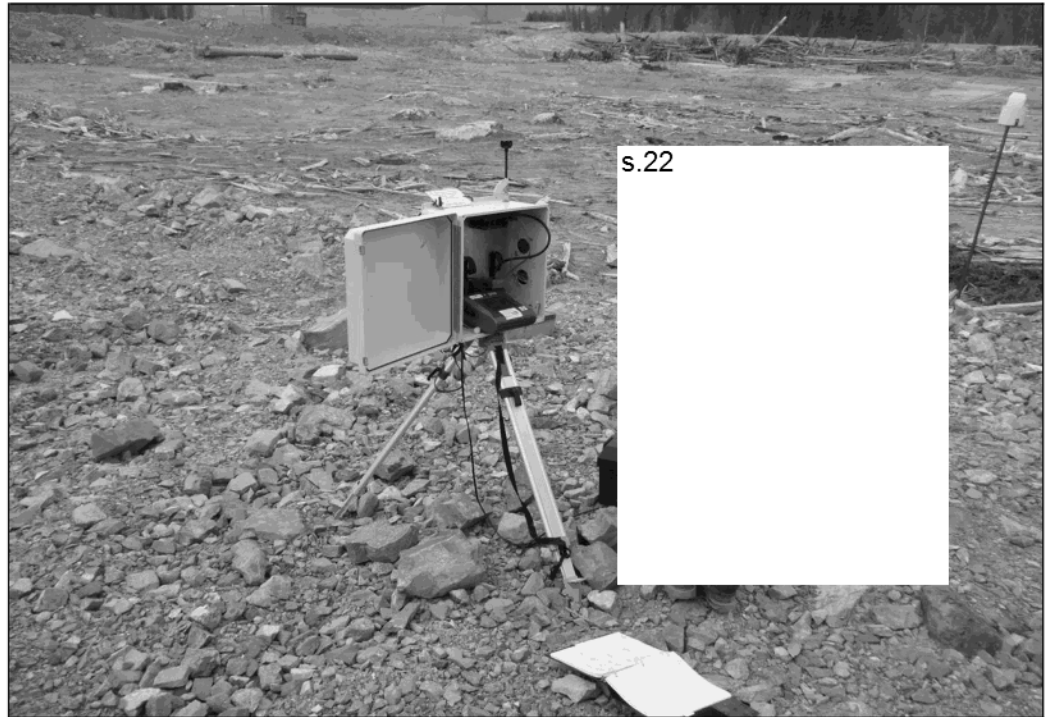
From the top of the mine site, near Mount Polley, you could see where the vehicle activity was on site from the dust plumes.



## Ministry of Environment - Photo Record Sheet

PA15087	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

On of the four new dust monitors which are positioned around the tailings impoundment.



Dust generated by vehicles carrying fill down to the mouth of Edney Creek. While this is not considered operational area, MPMC has a responsibility to prevent pollution, that may be caused by fugitive dust.



## Ministry of Environment - Photo Record Sheet

PA15087	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

Six sprinklers have been set up on the tailings impoundment. These operate two at a time, as needed, and are fed from the main embankment seepage ponds.



The water truck was eventually fixed and back online. This section of the haul road had been recently soaked.





# Ministry of Environment Inspection Record

**Environmental  
Protection  
Division**

EP System: AMS	Inspection Status: FINAL	
System Number: 15087	Inspection No: 21927	
EP System Status: Active	Inspection Date: 2015-08-19	
Region: Cariboo	Office: Williams Lake	
Trigger: Planned	<b>Incidents of Non-Compliance Observed: Yes</b>	
Non-Compliance Decision Matrix Level: Level 2	Non-Compliance Decision Matrix Category: Category A	
Inspector Name(s): Jack Green	Risk Ranking: Over 2 = High	
Audit:	Total Non-Compliance(s): 1	
<b>Regulated Party:</b> Mount Polley Mining Corporation		
Regulated Party Contact(s): Colleen Hughes		
<b>Mailing Address:</b> Box 12 Likely BC V0L1N0		
Phone No: (250)790-2617	Fax No: (999)999-9999	
Contact Email: chughes@mountpolley.com		
<b>Location Description or Site Address:</b> Mount Polley is an open pit copper/gold mine located near Likely, BC.		
Latitude: 52.54547 N	Longitude: 121.63433 W	
Receiving Environment(s): Air		

## Summary

MONITORING AND REPORTING REQUIREMENTS		
Inspection Period:		
From: 2015-08-19	To: 2015-08-19	
Requirement Source:		
Permit		
Activity: On Site	Waste Type: Air	
<b>Inspection Summary:</b> <p>Site inspection with Chris Swan (MOE Impact Assessment Bio), accompanied by Colleen Hughes (MPMC Environmental Coordinator). The weather during the inspection was partly cloudy with little wind.</p> <p>Upon arrival at Mount Polley, significant fugitive dust was observed on the haul road leading up to the site.</p> <p>The water truck was undergoing repairs for much of the inspection. As a result there was considerable fugitive dust generation across the site, mainly caused by vehicular movement.</p> <p>There is only one large water truck on site. This truck focusses on dust suppression on the main haul roads around the mine which experience heavy vehicular traffic. The haul road leading to the site is not watered.</p> <p>Construction of the Edney Creek channel was underway which required loads of rock to be transported down from the mine site by 2 articulated dump trucks. These trucks generated considerable fugitive dust on the access road leading to the new channel, partly due to the fine particle size. No dust suppression techniques were in effect in this area at the time. While this area cannot be considered "within the operation area" as stated in section 2.5 of this permit, it is still MPMC's responsibility to prevent pollution that could be caused by the generation of fugitive dust.</p> <p>There are 6 large sprinklers set up along the North East perimeter of the tailings storage facility (TSF) (positioned according to prevailing wind direction). These are fed from the main embankment seepage pond and usually 2 of these sprinklers are operational at a time. When necessary, the water truck also travels along the perimeter of the TSF, spraying water over the tailings. MPMC have installed 4 new dust monitoring stations around the TSF. No fugitive dust issues were observed from the tailings impoundment.</p>		<b>Response:</b> <u>Advisory</u>
ACTIONS REQUIRED BY REGULATED PARTY:		
<p>When the water truck was out of service, there appeared to be no plan for suppressing fugitive dust, mainly generated by vehicular movement on site. This is not acceptable. Please provide a brief contingency plan detailing what actions will be taken to suppress fugitive dust in the operational area, during periods when the water truck is unavailable.</p> <p>The main haul road to the site, from the point where the road becomes mine property, is regarded as the "operational area", as it is part of the mine site that experiences mine traffic. MPMC is therefore expected to suppress fugitive dust in this area. Please provide a brief report detailing what actions will</p>		

be taken to fulfill this requirement.

Please ensure these reports are submitted by 18 September 2015.

ADDITIONAL COMMENTS:

Compliance Summary	In	Out	N/A	N/D
Operations	0	1	0	0

## Inspection Details

**Requirement Type:** Operations

**Requirement Description:**

2.5 FUGITIVE DUST CONTROL

The permittee shall suppress fugitive dust created within the operation area. Any measured dustfall data shall be compared to the Ministry Objective value of 2.9mg/dm<sup>2</sup>/d. If measured ambient air quality compares unfavourably to the Objective value, the Regional Waste Manager will evaluate the sensitivity of the receiving environment, the contribution of the permittee's dustfall sources to the measured ambient values, plus any other pertinent information and may, at his discretion, require the Permittee to implement additional control measures on fugitive dust sources.

**Details/Findings:**

Failure to suppress fugitive dust within the operational area. There is only one water truck on site and this was down for repairs. There didn't appear to be a contingency plan in place for when the water truck was unavailable.

**Compliance:** Out

**Were the following collected during inspection:**

Samples? ☐ Photos? ☒ EMS No.

**Other (please specify)**

**Is the Inspection related to an EA Project?**

☐

**EA Project Certificate Number:**

INSPECTION CONDUCTED BY:

Signature

Jack Green

Date Signed

2015-09-09

ENCLOSURE(S) TO REGULATED PARTY & DESCRIPTION:

Photo record

CVIS Archives

REGULATORY CONSIDERATIONS:

**DISCLAIMER:**

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of regulations and codes of practices please visit:  
<http://www.bclaws.ca/>

If you require a copy of the original permit, please contact the inspector noted on this inspection record or visit: <http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publicly%20Viewable%20Authorizations>

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.

<b>Ministry of Environment</b>	<b>Cariboo Region</b> Environmental Protection Division	Mailing Address:	Phone: (250) 398-4530
		400-640 Borland St	Fax: (250) 398-4214
		Williams Lake, BC V2G 4T1	Website: <a href="http://www.gov.bc.ca/env">http://www.gov.bc.ca/env</a>



## Ministry of Environment - Photo Record Sheet

PE11678	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

Central Collection Sump. Inflow from the Long Ditch and West Ditch is at the far end.



Weir at head of Hazeltine Creek. Note the fish barrier upstream (left) of the weir.



## Ministry of Environment - Photo Record Sheet

PE11678	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

Hazeltine Creek has been lined with rock the whole way down. The banks have been graded, seeded and planted with native shrubs and bushes.



Discharge channel leading from the sediment control ponds at the end of Hazeltine Creek, leading to Quesnel Lake. Edney Creek was being diverted through the ponds and this channel at the time of the inspection, while the new creek channel was under construction.



## Ministry of Environment - Photo Record Sheet

PE11678	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

Edney Creek channel has been lined with rock material and logs have been anchored along the creek bed to create fish habitat.



Snow blowers/misters at the Main Embankment Seepage Pond to increase evaporation.



## Ministry of Environment - Photo Record Sheet

PE11678	Mount Polley Mining Corporation
August 19, 2015	Mount Polley Mine

Springer Pit. The discharge from the mill is in the centre of the picture.



3 pumps in Springer Pit pumping water to the CCS for use as mill process water.





# Ministry of Environment Inspection Record

**Environmental  
Protection  
Division**

EP System: AMS		Inspection Status: FINAL	
System Number: 11678		Inspection No: 21685	
EP System Status: Active		Inspection Date: 2015-08-19	
Region: Cariboo		Office: Williams Lake	
Trigger: Planned		<b>Incidents of Non-Compliance Observed: No</b>	
Non-Compliance Decision Matrix Level: Level 0		Non-Compliance Decision Matrix Category: Category 0	
Inspector Name(s): Jack Green		Risk Ranking: Over 2 = High	
Audit:		Total Non-Compliance(s): 0	
<b>Regulated Party:</b> Mount Polley Mining Corporation			
Regulated Party Contact(s): Colleen Hughes			
<b>Mailing Address:</b> P.O. BOX 12 LIKELY, BC V0L 1N0			
Phone No: (250)790-2617		Fax No:	
Contact Email: chughes@mountpolley.com			
<b>Location Description or Site Address:</b> Mount Polley is an open pit copper/gold mine located near Likely, BC.			
Latitude: 52.54547 N		Longitude: 121.63433 W	
Receiving Environment(s): Surfacewater			

# Summary

<b>MONITORING AND REPORTING REQUIREMENTS</b>		
Inspection Period:		
<b>From:</b> 2015-08-19 <b>To:</b> 2015-08-19		
<b>Requirement Source:</b>		
Activity: <u>On Site</u>		Waste Type: <u>Effluent</u>
<b>Inspection Summary:</b> Site inspection with Chris Swan (MOE Impact Assessment Bio), accompanied on site by Colleen Hughes (MPMC Environmental Coordinator).  Areas of site visited included: - Central Collection Sump (CCS) and Till Borrow Pit; - Polley Lake plug and new river channel, including weir; - Settling ponds and Edney Creek channel reconstruction project, on Quesnel Lake; - Tailings Storage Facility (TSF); - Seepage ponds below TSF; - Mine drainage control; - Springer Pit.  Construction activities were underway on the new Edney Creek channel, lining the new channel with rock material. Edney Creek was being diverted through the sediment control ponds along with the flow from Hazeltine Creek. Samples were collected by Chris Swan of the discharge from the ponds.  Extensive reclamation work has gone into the reconstructed Hazeltine Creek channel, including lining of the channel with riprap (rock material), seeding of the banks and planting of native trees/bushes along the riparian zone. Large numbers of trees along the edge of the channel are dying off. Apparently this is the result of suffocation of the roots where material released by the breach has settled around the base of the trees. These trees will have to be removed.  MPMC are in the process of buttressing the Perimeter Embankment and Main Embankment. The Till Borrow Pit has not been affected by the buttressing of the Perimeter Embankment, i.e. no reduction in size. Plans for the buttressing of the Main Embankment and specifically what will happen to the Main Embankment Seepage Ponds have yet to be finalized. The material for this construction has been taken from the SERD dump and the berm within the TSF.  Under the MEM permit the mill is permitted to operate at 50% production, so MPMC are running the mill at 7 days on, 7 days off. The mill was operational during the inspection and was discharging into the Springer Pit. Chris Swan collected samples from the Springer Pit.  Sewage from the site is pumped to the Mill Site Sump, then to the Springer Pit.  There were 3 pumps in the Springer Pit pumping water via the West Ditch, down to the Central Collection Sump. Process water for the mill is pumped up from the		<b>Response:</b> <u>Notice</u>

<p>CCS. The filling station for the water truck also draws from the CCS.</p> <p>Outfall from the tailings impoundment flows into the breach sump, which then flows to the CCS. The CCS flows into the Till Borrow Pit. A water treatment plant is due to be built at the Till Borrow Pit in preparation for the reinstatement of the Hazeltine discharge, which is due to commence on 31 October 2015.</p>	
<p><i>ACTIONS REQUIRED BY REGULATED PARTY:</i></p> <p>None.</p>	
<p><i>ADDITIONAL COMMENTS:</i></p>	

Compliance Summary	In	Out	N/A	N/D
Operations	3	0	0	0

## Inspection Details

<p><b>Requirement Type:</b> <u>Operations</u></p>
<p><b>Requirement Description:</b></p> <p>2.4.1 To the maximum extent possible, seepage and runoff from the open pits, rock disposal sites, and from down gradient of the tailings impoundment must be collected and conveyed to the tailings impoundment, mill or open pits. Recycling of on-site water and evaporation enhancing techniques must be practised to the maximum extent practicable. Inactive open pits may be used for storage of mine water, tailings impoundment supernatant or mill site runoff provided records of volumes transferred to any pit are maintained.</p>
<p><b>Details/Findings:</b></p> <p>Mine run-off is currently being conveyed either directly to the Springer Pit or to the CCS.</p> <p>Water in the CCS is utilized as process water in the mill and in the water truck to suppress dust on the haul roads around the site. Evaporation techniques (mistors) were in effect at the main embankment seepage pond.</p> <p>The Till Borrow Pit is currently used for additional water storage. The CCS flows into the Till Borrow Pit.</p> <p>Records of water balance around the site were made available upon request.</p>
<p><b>Compliance:</b> <u>In</u></p>
<p><b>Requirement Type:</b> <u>Operations</u></p>
<p><b>Requirement Description:</b></p> <p>2.4.4 The tailings impoundment must provide 1.0 meter of freeboard plus storage for the Probable Maximum Precipitation (PMP), and all other effluent storage ponds, seepage ponds, and surface runoff ponds must provide at least 0.5 meter of freeboard, up to a 1 in 200 year 24-hour storm event. If at any time the freeboard in the tailings impoundment is reduced to less than 1.0 meters plus the PMP, or less than 0.5 meters in any other pond, the Permittee must notify Environmental Protection following</p>



procedures in Section 2.1 of this permit. After initially reporting such an occurrence, the Permittee must report the freeboard weekly until such time as the required freeboard is re-established. Freeboard is defined as the difference in elevation between the contained liquid level and the top of the berm structure at its lowest point. The lowest point does not include a spillway where a discharge is authorized or where the supernatant over flows to a downstream collection pond that is part of the authorized works.

**Details/Findings:**

All water storage ponds inspected had adequate freeboard.

**Compliance:** In**Requirement Type:** Operations**Requirement Description:**

2.4.6 All ponds, ditching, and other runoff or seepage collection and diversion works must be inspected at least twice per year, once in the spring after freshet and once in the fall before freeze-up.

**Details/Findings:**

Records of bi-annual inspections of required works were provided upon request.

**Compliance:** In**Were the following collected during inspection:**

Samples? ☒ Photos? ☒

EMS No.

Other (please specify)

Is the Inspection related to an EA Project?

☐

EA Project Certificate Number:

**INSPECTION CONDUCTED BY:**

Signature

Jack Green

Date Signed

2015-09-09

**ENCLOSURE(S) TO REGULATED PARTY & DESCRIPTION:**

Photo record.

CVIS Archives

**REGULATORY CONSIDERATIONS:****DISCLAIMER:**

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## **Metcalf, Megan MEM:EX**

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**From:** Demchuk, Tania MEM:EX  
**Sent:** Wednesday, September 23, 2015 9:39 AM  
**To:** Green, Jack E ENV:EX; McConnachie, Jennifer MEM:EX  
**Subject:** RE: Mount Polley Inspection Reports

Hi Jack,

Thank-you for sharing your reports. Did you receive a plan for management of the fugitive dust?

We will send you our report following the MEM inspection.

Cheers,  
Tania

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**From:** Green, Jack E ENV:EX  
**Sent:** Wednesday, September 16, 2015 4:33 PM  
**To:** Demchuk, Tania MEM:EX; McConnachie, Jennifer MEM:EX  
**Subject:** Mount Polley Inspection Reports

Hi Tania/Jennifer,

I just realised I forgot to cc you in on my inspection reports for Mount Polley, as promised. Sorry about that. See attached.

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Regards,

**Jack Green**  
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