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INTERNATIONAL CYANIDE MANAGEMENT CODE GOLD MINING OPERATION VERIFICATION AUDIT MUSSELWHITE, CANADA

SUMMARY AUDIT REPORT

Submitted to:



International Cyanide Management Institute 888 16th Street N.W, Suite 303 Washington, D.C. 20006

Goldcorp Canada Ltd. Musselwhite Mine PO Box 7500 Thunder Bay, Ontario P7B 6S8

Submitted by:

Golder Associates Inc. 44 Union Boulevard, Suite 300 Lakewood, Colorado 80228

January 29, 2010 063-2129.0013

Name of Project: Musselwhite Mine

Project Owner / Operator: Goldcorp Canada Ltd., a wholly owned subsidiary of

Goldcorp Inc.

Name of Responsible Manager: Gil Lawson, Operations Manager

Address and Contact Information: Musselwhite Mine

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Audit Dates: September 24-29, 2009

Location and Description of Operation

The Musselwhite Mine (Musselwhite) is operated by Goldcorp Canada Ltd., a wholly-owned subsidiary of Goldcorp, Inc. and is located in the Patricia Mining District within the Skinner and Zeemel Lakes Areas on the south shore of Opapimiskan Lake, in Northwestern Ontario. Musselwhite is a fly in fly out operation and is situated approximately 130 kilometers (km) north of the town of Pickle Lake and 470 km northwest of Thunder Bay, Ontario. Seven communities, including five First Nation communities, with a combined population of approximately 4,000 are located within the vicinity of the mine. There are approximately 460 people employed at Musselwhite.

The mine site consists of a potable water treatment plant, crushing plant, mill and tailings complex, conveying system, shop/warehouse and other ancillary facilities. Musselwhite gold production commenced in 1997 and primarily underground mining methods were employed. The current mine production is 4,000 tonnes/day ore and 2,000 tonnes/day barren rock. The barren rock material is stockpiled then utilized for underground backfill.

The milling facility uses two-stage crushing to reduce the ore and conventional gold extraction techniques to concentrate the gold. The tailings or residue from this process is washed with incoming tailings reclaim water in thickeners to recover cyanide. Residual cyanide is treated by an INCO SO2 cyanide destruct system prior to being pumped to the tailings pond.

The use of cyanide begins with the grinding area, which uses re-circulated cyanide bearing solution from the counter current decantation (CCD) wash circuit as process water within the grinding mills, Knelson concentrators, Delkor linear screen and pump boxes. The grinding circuit classified product reports to the grind thickener and thickened underflow slurry is pumped to the leaching circuit. Cyanide solution at approximately 20% sodium cyanide is normally added to Leach Tank # 1 and Leach Tank # 3 as required to maintain circuit parameters. The leach pulp is transferred from tank to tank via gravity with approximately 7.5 hours retention per tank with 4 tanks in series. The purpose of these tanks is for the dissolution of gold. The leach pulp flows to the carbon in pulp (CIP) circuit for adsorption of gold onto activated carbon. The CIP circuit utilizes six tanks with a nominal retention time of 0.8 hour per tank allowing the slurry to flow by gravity through in-tank or interstage agitated screens. The CIP tails report to a safety screen and tails are pumped to the CCD thickeners for cyanide recovery. Interstage screens retain the activated carbon within the CIP tanks, which advances carbon counter current to the slurry via vertical pumps within the tanks, operating on an operator initiated timed basis. Loaded carbon from CIP Tank # 1 is washed and forwarded to the

elution circuit to elute gold back into a concentrated solution to electrowin the gold. The eluant solution is recycled with a small bleed of solution containing weak cyanide entering the leach tank(s) or alternatively CIP Tank # 4.

The process for the tailings works begins with the washing of CIP tailings slurry in two CCD wash thickeners using water reclaimed from the tailings pond. This water washing recovers a portion of the cyanide from the tailings slurry for re-use in the gold extraction process. At the same time it reduces the cyanide content requiring destruction. The discharge from the CCD wash circuit is pumped to a cyanide destruction reactor where the concentration of cyanide (Weak Acid Dissociable (WAD) cyanide) is removed with the use of sulfur dioxide (SO2), air and/or oxygen and copper sulfate (CuSO4). A process discharge of < 2.0 milligrams per liter (mg/L) of WAD cyanide is targeted. The reactor discharge is pumped to the tailings impoundment area about 3 km west of the plant site. Tailings lines are installed such that they are spill-protected using ditching and spill containment ponds. The tailing solids settle within the impoundment, or tailings area, while the supernatant is contained as the primary clearwater pond.

The tailings area consists of a shallow, valley-like depression that is enclosed with a border of earth constructed embankments (dams) at low basin elevations. Seepage through dams is collected and contained in a seepage collection pond and pumped backed to the tailings area when necessary. Approximately 75% of the tailings solution discharged to the tailings pond is returned to the mill process. Remaining water plus precipitation inflow is stored and seasonally discharged to the receiving environment via the Polishing Pond to maintain a controlled water elevation within the tailings pond. Water is discharged from the Polishing Pond to the treatment wetlands and final control structure (flume), which is the final compliance point. The rate of discharge from the Polishing Pond is regulated to control water elevation and effluent quality.

E.I. DuPont De Nemours &Co., Inc. (DuPont) is the cyanide producer and supplier for Musselwhite. Musselwhite receives solid sodium cyanide briquettes in one-ton "bag-in-box" intermediate bulk container (IBC) plywood boxes. The sodium cyanide box containers are stored in a secure concrete floored reagent storage warehouse and concrete stem wall contained, aluminum wall and roofed building. The facility is a ventilated metal building with access ramps at either end. The building has vertical rising bay doors that can be opened for loading and unloading. The building has vent openings to provide adequate ventilation. Cyanide is stored separately from other reagents by a concrete berm and has a separate concrete drainage and sump area that would prevent mixing of other reagents in the event of spills. The liquid sodium cyanide is stored in tanks in the reagent area of the mill with a venting system within the mixing and storage tanks.

The cyanide storage and mixing tanks are located within a concrete containment and sump with sufficient capacity to contain 110% of the largest tank. The tanks have appropriate ventilation and hydrogen cyanide (HCN) monitoring. Cyanide mixing and holding tanks have ultrasonic level transmitter indicators and high-level alarms that prevent tank overfilling. Musselwhite stores and manages cyanide in engineered tanks, pipelines, concrete containments, reagent storage, cyanide destruction system and tailings management area under appropriate quality control and quality assurance (QA/QC) programs. All pipelines are labeled to identify the content and the flow directions are marked. Musselwhite employs inspection and preventive maintenance programs to assure that all cyanide equipment and facilities are functioning as designed and to monitor process solutions.

Musselwhite has developed a comprehensive closure plan to complete the appropriate management of cyanide solutions and solids, and the decontamination of the cyanide facilities. The closure plan addresses the management of the cyanide facilities including milling, leach tanks, thickeners, cyanide

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destruct tanks, cyanide mixing and storage tanks and piping, tailings management and closure, performance monitoring (surface water, groundwater, seepage, survey monuments and erosion) and long-term maintenance. The plan has sufficient detail to support the International Cyanide Management Code (ICMC or Code) compliance and cost estimation.

Musselwhite has identified potential cyanide exposure scenarios and developed plans and standard operating procedures (SOPs) to eliminate, reduce and control exposure to cyanide. Musselwhite has completed programs to optimize cyanide use. Operating plans and individual task specific SOPs provide details for safe storage, handling and distribution of sodium cyanide liquid; safe operation of cyanide equipment; personal protective equipment (PPE) requirements; and inspection requirements.

Musselwhite has its own on-site capabilities for fire-fighting, HazMat clean-up and medical emergency. Musselwhite has an on-site medical clinic that is staffed with a nurse qualified to provide medical/emergency assistance. There is a physician who provides 24 hour medical services over the telephone. Musselwhite will take full responsibility for response to a cyanide release. Musselwhite made formalized arrangements with the Thunder Bay Regional Health Science Center to provide assistance to workers exposed to cyanide, if required. Musselwhite has emergency response and mine rescue teams trained in fire fighting, confined space, cyanide spill response and decontamination, cyanide awareness, use of response equipment, first aid for cyanide poisoning and others. Every shift has first aid trained personnel.

Musselwhite provides many avenues of opportunity for stakeholders to communicate issues of concern regarding the management of cyanide at the mine (through Goldcorp's corporate website, community sessions and others). Musselwhite has established communication channels with the First Nation Councils and Communities through an Environmental Working Committee (EWC) in 2001. Through the EWC, First Nation representatives and other resource personnel learn and discuss environmental issues the site deals with and participate in the decision process regarding topics potentially affecting their interests. Musselwhite provided information regarding cyanide management practices through EWC meetings, mine industrial sewage inspections, tours of the site, consultation meetings and technical reports. Cyanide related spills will be reported to the corresponding regulatory agencies within specified regulatory time frames. Reporting procedures and requirements are described in the mine emergency plans. Musselwhite's reporting categories effectively cover the release and exposure scenarios identified in the Code.

Auditors:	Ivón Aguinaga	la, Lead Auditor and Gold Mining Technical Expert Auditor aga, Gold Mining Technical Expert Auditor a, Professional Engineer		
The operation	is	in full compliance with in substantial compliance with not in compliance with	Code Principles	
Audit Company	<i>7</i> :	Golder Associates Inc.		
Audit Team Le E-mail:	ader:	Pamela J. Stella, CEA Pamela_Stella@golder.com		
Musselwhite M Name of Facilit		Signature Dead Auditor	January 29, 2010 Date	

<u>G. Ivón Aguinaga</u> Name of Auditor	Signature of Auditor	<u>January 29, 2010</u> Date
<u>Peter Kresin</u> Name of Professional Engineer	Signature of Engineer	January 29, 2010 Date

Names and Signatures of other Auditors:

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute (ICMI) and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.

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1. PRODUCTION:	Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.
Standard of Practice 1.1:	Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.
The operation is	in full compliance with in substantial compliance with not in compliance with
that are compliant with the sodium cyanide supply con	g: Musselwhite has committed to only purchase cyanide from producers the International Cyanide Management Code (Code). Musselwhite has tract with E.I. DuPont De Nemours &Co., Inc. (DuPont). DuPont is been certified as complaint under the Code.
2. TRANSPORTATION:	Protect communities and the environment during cyanide transport.
Standard of Practice 2.1:	Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.
_	in full compliance with in substantial compliance with not in compliance with
specifies that Musselwhite to warehouse. DuPont is a sig RSB Logistics, Inc. (RSB) to directly to the mine. DuPon	Musselwhite has a sodium cyanide supply contract with DuPont, which takes ownership of the product at the time of delivery at the mine site natory producer to the Code and has contracted its primary truck carries to transport the containers from DuPont's Memphis manufacturing plant and RSB have a formal agreement with Goldcorp for the responsibility on to the Musselwhite Mine. There are no interim storages from the
qualified independent audito audited by a qualified Code a the ICMI Transportation Ve	e ICMC, but has provided a third-party due diligence audit report by a or and an approved ICMI lead and transportation auditor. RSB has been auditor for due diligence. The auditor stated that RSB is compliant with perification Protocol. According to the audits, DuPont and RSB are in as clear lines of responsibility for safety, security, release prevention, sonse.
The transportation audit repo	orts are:
	ry Audit Report, Rev. 2 for DuPont Sodium Cyanide Processing Operations, Audit Dates: March 20-28, 2006" (Management ns), and
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	ransportation Verification Audit, Audit Report, RSB Logistic, K (September 24-25, 2007).
Standard of Practice 2.2:	Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.
X	in full compliance with
The operation is	_
its transportation personnel, ICMI Code Principles, Stan certification requirements approached compliance matters set out in signatory company to the Code RSB is not signatory to the Code supply chain from DuPont's Musselwhite warehouse on signarity auditors meeting the quaudit and due diligence report cyanide from the manufacturing Mine. Based on the audits are with the Code's cyanide transpractical, the security, safety,	Goldcorp's supply contract is with DuPont and requires DuPont and distributors and contract transporters to comply with all applicable dards of Practice, performance goals, audit recommendation and plicable to the transportation to Musselwhite including the specific the ICMI Cyanide Transportation Verification Protocol. DuPont is a le and certified as compliant with the Code. The primary transporter ode but has a Code equivalent, non-certification audit completed. The se manufacturing plant in Memphis, Tennessee to delivery to the te has been audited within the past three years by independent third alifications established by the ICMI. Musselwhite has copies of the orts for the individual transporter for the transportation of sodiuming and packaging facilities in Memphis, Tennessee to the Musselwhite and due diligence reports, DuPont's supply chain is in full compliance insportation audit requirements and have considered to the extent training and emergency response aspects. Musselwhite has records cyanide, the bill of lading documentation and international customs
3. HANDLING AND STORA	GE: Protect workers and the environment during cyanide handling and storage.
Standard of Practice 3.1:	Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.
X	in full compliance with
The operation is	in substantial compliance with not in compliance with
constructed in accordance with accepted engineering practice	ne Musselwhite containment and fluid management systems have been in the designs reviewed and approved by the Ontario government and to s. H. A. Simons LTD Mining Group was the project designer and all as for the project were summarized in Project Construction – Level
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Design documents dated July 25, 1996. The construction documents used sound engineering practices for the design of all cyanide unloading, storage and mixing.

Canadian Erectors Limited TIW Division produced the Quality Assurance Plan for the process tanks. The tanks were designed and built to the API Standard 650. Canadian Erectors Limited issued separate reports for each CIP Tank (1-6), Leach Tank (1-4) and the Cyanide Destruction Reactor Tank.

Musselwhite modified the reagent storage warehouse in August 2009. The modifications were designed by an engineering firm (Hart Perovic Maxwell Group). A third party consulting firm installed the liner (LLDPE Geomembrane) and another third party engineering firm supervised and tested the placement and compaction the limestone fill and assessed the existing soil conditions. The design and quality assurance and quality control (QA/QC) documents were reviewed.

Musselwhite receives solid sodium cyanide briquettes in one-ton "bag-in-box" intermediate bulk container (IBC) plywood boxes. The sodium cyanide box containers are stored in a locked, ventilated and roofed metal building with a concrete floor. The design of the solid sodium cyanide storage warehouse is based on sound and appropriate engineering practices. The warehouse is located away from people and surface waters. Cyanide mixing and storage tanks are located on concrete pads and within concrete curbed containment, which prevents seepage to the subsurface. The liquid cyanide mixing and storage tanks have locked drainage valves on the pumps and tanks. There are HCN fixed monitors and alarms at the mixing tank and the process area. The Musselwhite cyanide mixing and storage tanks have level indicators and high-level alarms that prevent the overfilling. The cyanide mixing and storage containment area is designed to contain 110% volume of the largest single tank and has excess capacity to contain the catastrophic failure of the cyanide mixing and storage tanks. As-built documentation indicated that the cyanide mixing and storage tanks received a number of quality assurance tests including a recent non destructive testing. The design package includes foundation, concrete, and steel specifications.

Cyanide storage tanks are located on cast-in-place reinforced concrete pads and within concrete curbed secondary containment that prevents seepage to the subsurface. Cracks and other voids in the concrete are patched with epoxy or coated. Musselwhite has an inspection and preventative maintenance program for identification and patching of cracks. Review of the containments indicated that they are well maintained and that all cracks have been effectively patched. The cast-in-place reinforced concrete containments are competent barriers to the leakage.

Cyanide is stored within the locked warehouse and the secured boundary of the Musselwhite property. Access to the site is controlled. The cyanide warehouse is locked. The solid cyanide IBCs are stored with other solid reagents. Dry solid cyanide is stored separately from other reagents by a concrete berm and has a separate concrete drainage and sump area that would prevent mixing of other reagents in the event of spills. All reagents in the warehouse are stored in a dry form.

Standard of Practice 3.2:		Operate unloading, storage and mixing facilities using inspection preventive maintenance and contingency plans to prevent or control releases and control and respond to worker exposures.	
The operation is	\square	in full compliance with in substantial compliance with	Standard of Practice 3.2
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Basis for Audit Finding: Musselwhite has developed and implemented a comprehensive set of procedures to prevent and control exposures and releases during unloading, mixing and storage. These procedures include: unloading of sodium cyanide briquettes, removing IBC cyanide from the warehouse, preparation of liquid cyanide 20% strength, incineration of the cyanide boxes and sacks, and others.

The unloading procedure defines objectives, responsibilities, and task descriptions for the transportation, unloading, handling and tracking of the solid sodium cyanide product from the entrance gate to the reagent storage building at the Musselwhite Mine. DuPont is responsible for the transporter complying with all requirements of the mine, providing emergency response, and verification from the DuPont production facility to delivery at the mine. The procedure for removing the IBC from the warehouse includes requirements for the inspection of the storage area drain and condition of the cyanide box. The procedure includes handling the IBC without rupturing or puncturing them and limiting the stacking height of the IBCs.

The procedure for cyanide preparation outlines the requirements for inspection, observation, pH control, movement of IBCs and mixing of cyanide. The inspection checklist prior to mixing includes verifying that the tank extractor fan is operable, presence of antidote kit, presence of an observer, inspection of pump seals, tank valves and connections, tank level of water of preparation and storage tanks; pH (initial and final) and HCN measurement. Musselwhite requires personal protective equipment and having a second individual observer present during mixing. Musselwhite has also procedures for the management and rinsing of the cyanide bags, the operator to check the bag for any residual briquettes, and disposal of the rinsed bags and wooden boxes to be incinerated. The empty containers are not used for any purpose other than holding cyanide.

Musselwhite has developed written instructions for the operation of critical valves and coupling related to the addition of caustic, raw water and connection with the storage tank and mixing and transfer of the solution from the mixing to storage tank.

Musselwhite has written procedures that address the prompt clean up of solid cyanide in the warehouse or spills during mixing. Any liquid spills or leaks within the concrete containments are automatically pumped from the mixing area sump back into the mixing tank. Operators are trained to hose down the liquid spill areas immediately. Review of the Musselwhite containments indicated excellent housekeeping practices.

4. OPERATIONS:	Manage cyanide process solutions a protect human health and the environment.	
Standard of Practice 4.1:	Implement management and operating protect human health and the environme planning and inspection and prev procedures.	nt utilizing contingency
X	in full compliance with	
The operation is	in substantial compliance with not in compliance with	ard of Practice 4.1
	sselwhite has developed and implemented operadress protection of human health and the envir	
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of utilities and reagents, crushing and grinding, leaching and CCD, gravity circuit, cyanide destruction and Tailings Management Area (TMA). These documents have since been supplemented by operating plans and task specific SOPs that describe the management and operation of the cyanide facilities. The Province of Ontario requires mining operations to prepare Operations Manuals and keep the manuals up to date. The procedures detail the potential risks involved with each task and adequately describe safe work practices. The operating manuals detail the operating parameters and design capacities of the cyanide circuit facilities and the TMA. Musselwhite's cyanide circuit consists of a gravity concentrator and intensive cyanidation reactor, cyanide mixing tank, cyanide storage tank, process water storage tank, four leach tanks, six CIP tanks, two CCD tanks, CCD tailings thickener, cyanide destruct reactor tank and interconnection pipes. The tailings are neutralized to WAD cyanide concentrations in the slurry to approximately 2 mg/L in an INCO/SO2 system. The facility has identified the assumptions and parameters on which the facility design was based and to applicable regulatory requirements. The TMA was designed to contain the 100-year, 12hour interval storm event (the Timmins Storm) with a two meter freeboard. WAD cyanide concentrations discharged into surface water is limited to 0.02 milligrams per liter (mg/L). WAD cyanide concentrations discharged from the destruct reactor tank to the TMA is limited to 5 mg/L. The tailings management area is designed and operated in accordance with the Mining Association of Canada (MAC) Environmental Policy and the MAC "Guide to the Management of Tailings Facilities."

Musselwhite has developed a series of documents that defines the policies, procedures and responsibilities for compliance with the Code. These documents describe the standard practices necessary for the safe and environmentally sound operation of the facility including water management procedures, inspection programs and preventative maintenance (PM) programs. The programs include inspection and documentation of all cyanide tanks, pumps, pipelines, containments and the tailings facility. Currently daily, weekly and monthly inspections are being completed with work requests and work orders being developed as needed. Inspections are documented. The unloading area and solid cyanide storage area are inspected prior to an unload event and prior to removing a cyanide box from the storage area for mixing. Musselwhite uses a computer based preventive maintenance system, EMesa® to identify, issue work orders and document all preventive maintenance activities. The PM program includes critical equipment. Musselwhite has developed a code compliant change management procedure ("Procedure for Amending Cyanide Management and Handling Protocols) to be used when a change that can have the potential to adversely affect quality, health, safety, efficiency, community and security is proposed. Musselwhite has developed procedures to manage contingencies in the cyanide facilities (i.e. water balance upset, overtopping of tanks, broken pipeline, ruptured valve) including key scenarios and responses for upset conditions at the plant, the TMA and the water balance.

Musselwhite has generators to supply power in case of a power outage. An Emergency Equipment Procedure details procedures for start up and a list of key equipment and their electrical requirements. The generators are tested and maintained every four months by a third party contractor.

Standard of Practice 4.2:	Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.
The operation is	in full compliance with in substantial compliance with not in compliance with
evaluate addition and recovery the original feasibility work conducted in February 2009. oxidization. Samples for the ostudy concluded that the opti operations, Musselwhite sample locations. Musselwhite's Me evaluate cyanide concentration Leach and CIP Circuit (thicken	rates. Musselwhite has conducted cyanide optimization studies since to optimize the cyanide application. The most recent study was The ore is generally quite consistent with historic issues related to optimization study were run at different cyanide concentrations. The mal free cyanide concentration is 400 ppm. As part of the daily les for Free and WAD cyanide, and pH at different cyanide circuit tallurgical Department has evaluated varying control strategies to s. Cyanide concentrations are measured several times a shift at the er overflow, Leach Tank #1 and Leach Tank #3, CIP Tailings) and the dlings Circuit (CCD #1 underflow feed into the cyanide destruct circuit destruct reactor tank).
in the mill. The cyanide coroptimize the recovery. Also co	a strategy and management system to control the addition of cyanide acentration is regularly monitored and gold extraction evaluated to insidered in the analysis is the cyanide concentration going to the TMA intration is below 50 mg/L WAD cyanide after cyanide destruction.
Standard of Practice 4.3:	Implement a comprehensive water management program to protect against unintentional releases.
The operation is	in full compliance with in substantial compliance with not in compliance with
that is tracked and updated vimplemented a comprehensive engineered water management CrystalBall for statistics. Muss	usselwhite has developed a comprehensive probabilistic water balance with actual process values on a monthly basis. Musselwhite has water balance model that tracks water flow throughout the site-wide facilities, including the mill and TMA. The model uses Excel and selwhite evaluates its water management on a monthly basis using the ite's on-site meteorological station.
capacity of the TMA relative to will be reached, 2) provide an available water storage in the 3 the site personnel with an analy	lance model to meet the following objectives: 1) predict the storage of mine production to determine whether, or when maximum capacity operational tool allowing facility managers to estimate and predict TMA which can be used as reclaim water for the mill, and 3) provide rtical tool to evaluate alternative strategies for managing the operation and to support decision making and planning.
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The water balance includes the tailing discharge rate, the annual production rate for the mill and the geotechnical properties of the tailings (i.e., tailings slurry percent solids and moisture content, consolidated tailings dry density and percent saturation, and tailings specific gravity), direct precipitation run-on to the TMA surface, TMA impoundment water depths and geometries, discharge from the seepage collection pond, tailings water reclaim rates and underground water. System losses simulated by Musselwhite's model include reclaim of tailings water back to the mill for operating purposes, slurry water that is entrained in the tailings, evaporation, seepage collection pond (returned to the TMA) and discharges from the polishing pond. Model inputs for the polishing pond include the discharge from the tailings pond, discharge from the east pond (assume zero), direct precipitation onto the pond and pond basin land precipitation. The model accounts for impacts from freezing and thawing. The water balance model does not account for power outages because Musselwhite has adequate emergency generator capacity to maintain control of the water balance.

The Musselwhite water balance model does not consider the stormwater runoff entering the TMA because the upgradient watershed is insignificantly small. The only excess water that enters the system during a storm event is from precipitation falling directly onto the TMA.

Musselwhite has inspection and monitoring activities incorporated into operating procedures to prevent overtopping of the impoundment and unplanned discharge of process solutions to the environment. The design and operation of the TMA requires the following performance monitoring:

- Mill tailings slurry and water recycle rate and quality;
- Impoundment seepage quantity and quality into the seepage collection pond;
- Decant system discharge flows;
- TMA impoundment conditions (level of impoundment surface, average in-situ tailings density, density profiles and impoundment water quality);
- TMA embankment performance (piezometers); and
- Groundwater and surface water.

The TMA is designed and operated with adequate freeboard above the maximum design storage capacity determined to be necessary from water balance calculations. Musselwhite measures precipitation and compares the results to design assumptions and revises operating practices if necessary.

Standard of Practice 4.4:		Implement measures to protect birds, other wildlife an livestock from adverse effects of cyanide process solutions.		ļ
The operation is	X 	in full compliance with in substantial compliance with not in compliance with	Standard of Practice 4.4	

Basis for Audit Finding: Musselwhite has been successful in preventing wildlife mortality related to cyanide in the open water pond by treating the tailings slurry discharge to below 50 mg/L WAD cyanide prior to discharge to the TMA. Generally WAD cyanide concentrations in the end of pipe discharge to the TMA are below 2 mg/L. Musselwhite has implemented cyanide neutralization as a primary means to maintain WAD cyanide concentrations below 50 mg/L in open waters in the tailings storage facility. Otherwise, all process solutions and slurries are in tanks and pipelines.

Musselwhite completes sampling and analysis every three hours of the WAD cyanide concentration in the TMA open water. Review of WAD cyanide monitoring information of the detoxified tailings and the tailings open water was completed to verify that Musselwhite is successful in maintaining WAD cyanide concentrations in open water well below 50 mg/L.

Musselwhite conducts wildlife monitoring and no cyanide related mortalities have been reported.

Musselwhite does not use heap leach process.

<u>Standard of Practice 4.5</u> :		indirect discharges of cyanide water.	J
	X	in full compliance with	
The operation is		in substantial compliance with	Standard of Practice 4.5
		not in compliance with	

Basis for Audit Finding: Musselwhite has implemented measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water. Musselwhite has an authorized direct discharge to surface water and the WAD cyanide concentration at the discharge point is below 0.5 mg/L. Discharge is seasonally and discharge water at the discharge point has undergone several measures to decrease cyanide prior to discharge including cyanide destruction in the INCO SO₂ system, flow through a polishing pond and a treatment wetlands.

If effluent is released through the final compliance point then Musselwhite must monitor the water quality at the polishing pond and wetland treatment area. Musselwhite submits monthly environmental reports to the Ministry of Environment (MOE) for compliance. Monthly reports were reviewed for the time period August 2008 to May 2009. Water quality from the direct discharges never exceeded 0.5 mg/L.

Musselwhite has implemented a comprehensive surface water and groundwater monitoring program downstream and downgradient of the facility. Monthly reports were reviewed for the time period August 2008 to May 2009. Water quality from the direct discharges never exceeded 0.5 mg/L at monitoring location EF-3 (final compliance point).

Musselwhite has an authorized mixing zoned. They conducts acute lethality testing and chronic toxicity testing and reports to the MOE. Musselwhite monitors surface water in the established mix zone (MUS-22) and downstream of the mix zone (MUS 24). The average WAD cyanide concentration at MUS-22 since 1997 is 0.0137. The average WAD cyanide concentration at the location downstream of the mixing zone (MUS-24) since 1997 is 0.012 mg/L. Musselwhite analyses for Total and WAD cyanide but not free cyanide because they made a comparison of free cyanide and WAD cyanide and the difference was very small. Musselwhite's reported values are below the Code's concentration of free cyanide 0.022 mg/L or lower downstream of any established mixing zone.

Musselwhite conducts daily inspections of its cyanide facilities, TMA and ponds and the seepage collection system. Musselwhite reports monthly to the MOE on surface water quality, groundwater quality and process water quality. Musselwhite uses a Canadian certified laboratory. Handling, preservation and transportation of samples are conducted in conformance with established protocols.

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		ndirect discharges from the operate to rise above levels protective of	
Standard of Practice 4.6:		Implement measures designed to refacilities to protect the beneficial use.	
The operation is	X 	in full compliance with in substantial compliance with not in compliance with	Standard of Practice 4.6
systems to protect ground construction and maintena. The tailings are detoxified	water nce of d and	selwhite has implemented solution melow and downgradient of the open a secondary concrete containments for conveyed to an engineered facility. The results of the method in the secondary concrete containments for conveyed to an engineered facility. The results of the method is a secondary concrete containment of the secondary contains the se	ration. These measures include all process tanks and pipelines. There are seepage collection
established by the applic gradient of the facility a groundwater. Although t aquatic standard of 0.005 standard for groundwater i has taken the approach th approach to respond with	able re be he Or mg/L in the at me addit	or other species of cyanide for which jurisdiction) in groundwater at complow levels that are protective of identario Provincial Water Quality Object WAD cyanide, the project does not monitoring network around the tailing assurement of 0.025 mg/L WAD cyanide groundwater protective measure identarions are below the 0.0025 mg/L was concentrations are concentrations are concentrations are concentrations areadout the 0.0025 mg/L was concentrations are concentrations are	pliance points below or down lentified beneficial uses of the ective (OPWQO) has a surface thave a formal required permit ags impoundment. Musselwhite nide would trigger a risk based es. Review of the groundwater
Musselwhite does not use	mill ta	nilings as underground backfill.	
Standard of Practice 4.7:		Provide spill prevention or containn and pipelines.	nent measures for process tanks
	X	in full compliance with	
The operation is		in substantial compliance with not in compliance with	Standard of Practice 4.7
cyanide storage areas (wastorage tank) and process a circuit, the CIP area, the lacontrols within the containments are constructionstrumented with level sinterlocks that shut down the	arehooneas. each ainme eted of ensor he val	sselwhite has spill prevention and course for the solid sodium cyanide IE. The process areas include the mill antanks, and the CCD. Musselwhite hents to pump collected solutions in cast-in-place reinforced concrete. It is that are connected to alarms in the vess or pumps if levels are exceeded.	BCs and the liquid mixing and and the acacia intense cyanidation has automated pumps with level anto the process circuit. The The critical process tanks are ne control room and automatic
_		concrete containments with sufficient rovided verification that that the conc	
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each area can contain at least 110% of the single largest tank. Visual inspections of the secondary containments verified that there are no materials stored within the secondary containment to compromise their capacities. All Musselwhite cyanide process tanks and pipelines are constructed with materials compatible with high pH cyanide solutions. Musselwhite has constructed all pipelines with spill prevention and containment measures to collect leaks and prevent releases. The tailings conveyance pipeline is within an excavated compacted earthen lined. Part of the channel is sloped towards the mill, then reaches a high point and then is sloped towards the tailings facility. The pipeline has a differential pressure alarm that would notify Musselwhite if there was a break in the tailings delivery pipeline. The cyanide concentrations in the tailings slurry is below 0.5 mg/L WAD cyanide. Musselwhite has located facilities in areas that do not pose any undue risks to surface water that would require special protection. All process facilities are located upstream of the polishing pond and tailings impoundment.

Standard of Practic	<u>e 4.8</u> :	Implement quality control/quality confirm that cyanide facilities are engineering standards and specific	constructed according to accepted
	\boxtimes	in full compliance with	
The operation is		in substantial compliance with not in compliance with	Standard of Practice 4.8

Basis for Audit Finding: Quality control and quality assurance (QC/QA) programs have been completed during construction for cyanide facilities, including the process tanks, pipelines, concrete containments, reagent storage, tailings facility and INCO/SO₂ cyanide neutralization plant. Musselwhite retained a qualified engineering firm to oversee and provide construction verification documentation of the plant, mill and support facilities. The QC/QA reports are all prepared by qualified engineering companies and approved by Simons at the time of construction. In 2009 Musselwhite contracted a third party engineering firm to verify that all the tanks and pipelines are constructed of materials compatible with cyanide and high pH solutions. The stamped report and drawings were reviewed. The QC/QA programs include a comprehensive series of As-Built documents that cover the QC/QA and as-built documentation for each component of the cyanide facilities. The reports include foundation preparation, concrete works, subgrade preparation, grading, solution piping, tanks, testing and construction observations.

Musselwhite retained a qualified engineering firm to design and provide construction verification of the tailings management area (TMA). The QC/QA documentation for the TMA address material conformance, installation and construction for earthworks, tailings distribution and reclaim systems, Design specification and as-built report review indicated that acceptable industry and regulatory engineering design criteria (geotechnical, operational, containment, seismic, hydrological and environmental) were employed in tailings basin selection and embankment construction. Perimeter dam construction took into account the sub-soil types and conditions, provided for excavation and installed instrumentation such that essential elements of earth-fill, low permeability dams could be built and monitored to safely contain gold mine tailings.

Where there was no available quality control and quality assurance documentation or as-built certification for cyanide facility construction, Musselwhite has an appropriately qualified person inspect those elements of the facility involving cyanide and issued a report concluding that its

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continued operation within established parameters will protect against cyanide exposures and releases.

Musselwhite contracted a third party engineering firm to verify parts of the cyanide facility that QA/QC documentation was not available. The engineering firm concluded that "It is our opinion that the cyanide tanks, concrete foundations and containment system, and associated piping are satisfactory for continued operations within the operating parameters of standard normal industry practice."

Standard of Practice 4.9:	Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.
The operation is	
water, fish and wildlife and adequate to characterize the environmental monitoring net programs have been prepared that specify how and where	Musselwhite has written plan for monitoring of groundwater, surface aquatic resources. These programs are implemented at frequencies surface water, groundwater, wildlife, and process solutions. The work is both up and downgradient of the facilities. The environmental and approved by qualified professionals. Musselwhite has procedures samples should be taken, sample preservation techniques, chain of ide species to be determined. Sampling conditions and procedures are
*	ions for and records wildlife mortalities. No cyanide related mortalities ords maintained by Musselwhite.
water stations) and regional (nsive receiving water quality characterization both on local (10 surface 44 surface water stations) levels that are monitored for WAD cyanide on al stations and quarterly for the regional stations. Groundwater is bundment.
	ed monitoring programs at frequencies adequate to characterize the vildlife, and process solutions.
5. DECOMMISSIONING:	Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.
Standard of Practice 5.1:	Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.
Γhe operation is	in substantial compliance with Standard of Practice 5.1

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Basis for Audit Finding: Musselwhite has developed a comprehensive closure plan that address decommissioning of all cyanide facilities, including a schedule for closure activities. The plan has sufficient detail to support the Code compliance and cost estimation. The plan addresses the management of the cyanide facilities including milling, leach tanks, thickeners, cyanide neutralization tanks, cyanide mixing and storage tanks and piping, process, tailings management and closure. Ontario Ministry of Northern Development and Mines requires that mine closure liabilities be externally reevaluated with every process modification and Goldcorp internally requires the closure plan to be updated every year as part of its Asset Retirement Obligation (ARO) Policy.

Standard of Practice 5.2:		Establish an assurance mechanism related decommissioning activities.	capable of fully funding cyanide
The operation is	X 	in full compliance with in substantial compliance with not in compliance with	Standard of Practice 5.2
is an estimate that fully fudetail on the individual ta TMA), closure task and by Mine Plan. Financial As	unds (asks a y year ssuran establ	Musselwhite internal cyanide facili completion of the work by a contra and is presented by major facility (r. Goldcorp requires ongoing annuance is arranged through the Ministralished a financial mechanism to full closure Plan Amendment.	center. The cost estimate provides familling and processing facilities I review and update of the Life of the y of Northern Development and
6. WORKER SAFETY:		Protect workers' health and safety	from exposure to cyanide.
Standard of Practice 6.1:		Identify potential cyanide exmeasures as necessary to eliminate,	=
The operation is		in full compliance with in substantial compliance with not in compliance with	Standard of Practice 6.1

Basis for Audit Finding: Musselwhite has developed written Standard Operating Procedures and plans that describe the management and operation of the cyanide facilities. The SOPs and plans have been developed to eliminate, reduce and control exposure to cyanide. Operating plans and individual task specific SOPs provide details for safe operation of cyanide equipment, PPE requirements and inspection requirements. Musselwhite solicits worker input in developing and evaluating health and safety procedures via direct communication to supervisors or during safety meetings conducted at all process areas. Musselwhite conducts pre-work inspections of the mill. Pre-work inspections are also conducted prior to every mix event, prior to removing a cyanide box from the reagent warehouse and prior to a cyanide offload from the transportation truck to the reagent warehouse. In addition, weekly and monthly inspections of cyanide facilities are conducted and documented. Inspections cover all cyanide areas and include PPE, Material Safety Data Sheets (MSDSs), warning signs, leach tank and valves conditions, safety showers and eye wash stations, cyanide antidote tagged and stored properly,

cyanide salt formations, leaks from pipes, flow of cyanide labeled on pipes, HCN alarms, fire extinguishers and others. Musselwhite has developed a procedure to evaluate a proposed change/modification to any part of the cyanide process flow or to any of the cyanide management controls related to the cyanide process. All changes or modifications are communicated to the workforce and training requirements updated.

Standard of Practice 6.2:		Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.		
The operation is		in full compliance with in substantial compliance with not in compliance with	Standard of Practice 6.2	
Basis for Audit Finding: Musselwhite has developed procedures and plans for the cyanide facilities to prevent the generation of hydrogen cyanide (HCN) gas, and has located key cyanide process facilities in well-ventilated areas with appropriate HCN monitors. The pH is continuously monitored and maintained to prevent the formation of HCN. The cyanide mixing and storage tanks and CCD hickeners have exhaust fans. Stationary HCN monitors are located at key areas within the mill building identified as areas of potential worker exposure to cyanide. Musselwhite has installed safety showers with eyewash stations and dry chemical fire extinguishers at relevant cyanide usage areas. Eye wash stations operate on reduced pressure to prevent contaminants from being forced into the eye. Musselwhite also has handheld HCN sensors to monitor HCN concentration in areas where expanide-related tasks are conducted and when required for maintenance activities (e.g., in confined space entry). Musselwhite has implemented HCN monitoring equipment maintenance and calibration programs as directed by the manufacturer. Musselwhite has established requirements for PPE at all relevant process areas and for all cyanide-related activities.				
smoking, open flames, eat PPE must be worn. Pipes flow direction inside the	ing a cont gravi	nere cyanide is used to alert worker nd drinking are not allowed and that aining cyanide are marked as contain ty circuit, leaching/CIP circuit and to the tank entry points has also been place	t the necessary cyanide-specific ning cyanide solution and show tailings washing and treatment.	
areas where the cyanide is	s use	dium cyanide in English (the langua d. MSDSs are also available in ele eloped and implemented procedure to	ectronic format on Musselwhite	
Standard of Practice 6.3:		Develop and implement emers procedures to respond to worker expe		
The operation is		in full compliance with in substantial compliance with not in compliance with	Standard of Practice 6.3	

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Basis for Audit Finding: Musselwhite has developed written emergency response procedures for cyanide exposure and implemented these procedures through training and installation of emergency response equipment. Musselwhite has emergency response equipment including safety showers with eyewash stations, cyanide antidote kits (containing oxygen, amyl nitrite, sodium thiosulfate, sodium nitrite, charcodote and first aid kit), resuscitators, rescue vehicle, spill response equipment, HazMat equipment and others. The emergency response equipment is regularly inspected by the Safety Department. Cyanide antidote kits are stored at the manufacturer's recommended temperature and replaced by their expiration dates. Musselwhite has on-site capabilities for cyanide-related fire fighting, medical emergency, and Hazmat clean-up. The emergency response team is trained to provide first aid for cyanide exposure including oxygen and amyl nitrite administration. Every shift has at least an emergency responder at each area where cyanide is used. Musselwhite has an on-site medical clinic that is staffed with a nurse qualified to provide medical/emergency assistance. There is a physician who provides 24 hour medical services over the telephone if the nurse calls him. In addition, Musselwhite made formalized arrangements with the Thunder Bay Regional Health Science Center to provide assistance to workers exposed to cyanide, if required. The Thunder Bay Regional Health Science Center as a fully functional emergency department and trauma center is prepared to accept cyanide exposed patients and is equipped with a variety of treatment options for them.

Musselwhite has specific written emergency procedures to respond to cyanide exposure which include symptoms of cyanide exposure, first and medical aid procedures, and amyl nitrite precautions. The Emergency Preparedness Plan (EPP), Spill Responses, also describes first aid measures and decontamination procedures to respond to cyanide exposures. Musselwhite conducts annual mock emergency drills based on likely cyanide release/exposure scenarios to test the response procedure and incorporates lessons learned from the mock drills into its response planning.

7. EMERGENCY RESPONSE:			the environment through the ncy response strategies and
Standard of Practice 7.1:		Prepare detailed emergency cyanide releases.	response plans for potentia
The operation is		in full compliance with in substantial compliance with not in compliance with	Standard of Practice 7.1

Basis for Audit Finding: Musselwhite has developed several plans and SOPs that address accidental releases of cyanide including containment plans and analysis of potential scenarios. Musselwhite plans contain procedures for potential scenarios such as 1) cyanide intoxication; 2) on-site accidents during cyanide transportation; 3) releases during unloading and mixing; 4) cyanide related fire and explosion; 5) pipe, valve or tank ruptures; 6) electrical power outage and pump failures; 7) failure of the cyanide destruction reactor; 8) crack in the tailings dam, severe erosion or excess seepage through the tailings dam, and tailings dam breach with slurry flow to the environment; 8) cyanide spill control and clean-up; and 9) decontamination and emergency evacuation.

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Standard of Practice 7.2:	Practice 7.2: Involve site personnel and stakeholders in the planning process.		
The operation is	in full compliance with in substantial compliance with not in compliance with		
response planning through safety would not rely on outside respo emergency response to fire, en	Jusselwhite solicited the input of its workforce in the emergency of meetings and mock drills. The site is remote from communities and nders. Musselwhite is fully qualified and equipped to handle on-site avironmental and worker exposure. Musselwhite made formalized Bay Regional Health Science Center to provide assistance to workers		
Communities through an Envir councils aware of the nature of t	tablished communication channels with the First Nation Councils and commental Working Committee (EWC). Musselwhite has made the he risks associated with accidental cyanide releases, or consulted with munications and response actions.		
Standard of Practice 7.3:	Designate appropriate personnel and commit necessary equipment and resources for emergency response.		
The operation is	in full compliance with in substantial compliance with Not in compliance with		
emergency response equipment coordinate transportation to the	Iusselwhite has committed, in the EPP and SOPs, the necessary and first aid to manage all cyanide incidents at the operation and to e nearest medical facilities. Musselwhite has certified emergency ag, confined space, spill response, cyanide awareness, use of response poisoning and others.		
first crew leader at scene, depart department representative, mine cyanide related emergency. The name of the emergency respond at the mine camp and phone nu- list including Ministry of the En- Rescue, CANUTEC, Ornge Ai- Windigo and Shibogama First No of an emergency as needed.	ed roles and responsibilities of emergency response coordinators (e.g., ement supervisor/superintendent, mine general manager, sustainability site nurse, emergency response team, safety leaders, and others) for a e EPP contains a list of the emergency response team, including the ers, their shift schedule (day or night shift), work area, room number mbers. In addition, the EPP includes an external emergency contact avironment (MOE) Spills Action Center, DuPont, RSB, Ontario Mine or Ambulance, Thunder Bay Regional Health Sciences Center, the Nation Councils, and others. These agencies will be contacted in case Musselwhite has a list of emergency response equipment including includes procedures to inspect the emergency response equipment on ability when required.		
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Standard of Practice 7.4:	Develop procedures for internal and external emergency notification and reporting.
The operation is	in full compliance with in substantial compliance with not in compliance with
information for notifying m CANUTEC, Department of F Police (OPP), First Nation Co	The EPP and related facility plans include procedures and contact anagement, regulatory agencies (e.g., MOE, Environment Canada, sheries & Oceans, and Ministry of Labor (MOL)), Ontario Provincial uncils, DuPont, RSB, Thunder Bay Regional Health Sciences Center, ine General Manager is responsible for directing communication with
Standard of Practice 7.5:	Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.
The operation is	in full compliance with in substantial compliance with not in compliance with Standard of Practice 7.5
cyanide release scenarios. The treatment of contaminated multiple sulphate or hydrogen peroxide residues will be treated with the properly placed in the tailings	The EPP discusses cyanide response and remediation measures for the EPP includes procedures for spill containment and clean-up, and aterial. The EPP prohibits the use of sodium hypochlorite, ferrous to treat cyanide that has been released to surface waters. Liquid or soil me (liquid) and/or soda ash. Once soils have been treated, they will be impoundment. Musselwhite has established a pH of 6-8 for soils after a would be constructed, if necessary, to minimize the extent of the ching drainage systems.
event that Musselwhite drinking fit for human consumption, the drinking water. Musselwhite anticipated that two days wou	ts water from Opapimiskan Lake for a potable water supply. In the g water is affected by a cyanide spill into Opapimiskan Lake and is not be mine has a contingency plan regarding the supply of good quality maintains a two day supply of bottled water on site at all times. It is d be a sufficient time frame to get additional drinking water to the site yould continue until the site's drinking water is deemed fit for human all sampling and analysis.
assessment of potential flow included in the EPP, describ identified along the mine acc. The cyanide management plandesired endpoint after clear concentrations). Sampling with the concentration of the cyanide management plandesired endpoint after clear concentrations.	Musselwhite has identified potential sampling locations based on a risk paths of a release of sodium cyanide. The cyanide sampling plants these potential sampling locations. Sampling locations have been ess road, mill/reagent storage building and tailings management area also includes sampling procedures, sampling parameters as well as the up of all cyanide spills (e.g., Total and WAD cyanide final labe conducted based on the "Surface Water Monitoring Procedure & cedure" described in the Musselwhite Environmental Management Plan.
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Standard of Practice 7.6:	Periodically evaluate response procedures and capability revise them as needed.	ities and
The operation is Basis for Audit Finding: Department or following a in place which ensures the emergency equipment and	in full compliance with in substantial compliance with The EPP is reviewed on at least an annual basis by the Sustance drill or incident as needed. Musselwhite has a document particle. EPP contents are current (e.g., response individuals call-out ervices, emergency procedures and others). The EPP contains y of the EPP, including revision descriptions and dates.	ainability procedure numbers,
the response procedure and planning. Reports on the compliance. All deficient	I mock drills based on likely cyanide release/exposure scenari incorporate lessons learned from the mock drills into its May 2009 and September 2008 mock drills were reviewed ies identified after the two mock drills have been correand training. Verification was conducted by documentation rers.	response to verify cted and
8. TRAINING:	Train workers and emergency response personnel to cyanide in a safe and environmentally protective manner.	manage
Standard of Practice 8.1:	Train workers to understand the hazards associate cyanide use.	ed with
,	in full compliance with in substantial compliance with not in compliance with	8.1
Basis for Audit Finding: includes cyanide characterisemergency response numb working in an area where This includes contractors a product information, uses a detection equipment, basic activation, techniques to iscaddition to cyanide awarene and cyanide management reto worker health and safet operator will perform relate All mill operators including safe and practical operation alarms, cyanide poisoning i	in substantial compliance with Il new employees and visitors receive a general site safety induction, areas where cyanide is used in the mine, warning signs and researched and new hires. Training material for cyanide awareness included application, chemical reactions, shipping, PPE, safety precaute cyanide emergency plan, process spills and releases, initial atterprocess spills, emergency response numbers and cyanide first training, all personnel in job positions that involve the use of eive training on how to perform their assigned tasks with mining. Individual training in SOPs is provided for each specific	ction that I cyanide tasks or wareness. es ICMC, tions, gas response st aid. In f cyanide mum risk task the on on the wacuation response

breaking, confined space entry and others. Mill operators and emergency responders are also trained in cyanide spill response and first aid for cyanide poisoning.

Musselwhite provides annual refresher training in cyanide awareness, spill response and first aid for cyanide poisoning to all employees who may be exposed to cyanide, including process operators, emergency responders, contractors, and others. In addition, Musselwhite discusses cyanide-related health and safety issues as well as changes in cyanide management SOPs, if any, at safety meetings. Refresher training records and safety meeting records (where cyanide related topics or SOPs were discussed) were reviewed by auditors.

Standard of Practice 8.2:	Train appropriate personnel to a systems and procedures that community and the environment.		U
The operation is	in full compliance with in substantial compliance with not in compliance with	Standard of Pra	ctice 8.2

Basis for Audit Finding: All personnel in job positions that involve the use and management of cyanide (including unloading, mixing, production and maintenance) receive training on how to perform their assigned tasks with minimum risk to worker health and safety. Task-specific training is provided prior to working with cyanide independently. Task-specific training include mill/crusher induction, sodium cyanide unloading and mixing, mill emergency response, daily inspection and emergency response of the tailings area, decontamination and maintenance of the cyanide system, emergency generator procedure, confined space entry, cyanide exposure treatment, inspection of the cyanide system, use of handheld HCN sensors, and others. Musselwhite provides training elements necessary for each job identified in the training materials for the mill and leach/CIP operator.

Qualified personnel provide task training related to cyanide management activities. For example, the mill/crusher induction to new mill operators is provided by various mill and leach/CIP operators who have worked for many years in the mill. Cyanide awareness training was provided by DuPont in January 2009 to all employees that may encounter cyanide. The Safety Department is now responsible for providing refresher training in cyanide awareness and has personnel qualified as "Train the Trainer" to conduct this training.

Musselwhite provides annual refresher training in cyanide awareness, spill response and cyanide poisoning to all employees who may be exposed to cyanide including process operators, emergency responders and contractors. In addition, Musselwhite discusses cyanide-related health and safety issues as well as changes in cyanide management SOPs, if any, at safety meetings. Musselwhite requires written tests to evaluate the effectiveness of cyanide training. Employees are also evaluated on their job performance by their supervisors through field observation of specific tasks. Training records are retained by Musselwhite. The records include the name of the employee and the trainer, the date of training: the topics covered, and test results demonstrating an employee's understanding of the training materials.

Standard of Practice 8.3: Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide. \times in full compliance with Musselwhite Mine January 29, 2010

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The operation is		ntial compliance with inpliance with	Standard of Practice 8.3	
maintenance personnel evacuation), first aid for of process area, spills during decontamination procedu emergency response team response roles and use of	in procedures for cyanide poisoning g transportation of ares, spill response and emergency re- f response equipm s at least an eme	or cyanide mill emer, cyanide awareness, spicyanide, etc.), use of the seand clean-up proceesponse coordinators are ment. The emergency r	inloading, mixing, production and gency response (including mill ill response (spills and leaks in the ne emergency response equipment, dures, and others. Musselwhite a familiar with and trained for their esponse team has weekly training ed to administer amyl nitrite and	
emergency and will take external emergency conta	full responsibility act list including and are Air Ambulan	for response to a cyan MOE Spills Action Ce ice, Thunder Bay Regi	HazMat clean-up and medical ide release. The EPP includes an nter, DuPont, RSB, Ontario Mine onal Health Sciences Center and s needed.	
cyanide poisoning to all emergency responders, co	employees who report actors, and other swell as changes	may be exposed to cya hers. In addition, Mus	ess, spill response and first aid for nide, including process operators, selwhite discusses cyanide-related t SOPs, if any, at safety meetings.	
lessons learned from the resure the integrity of the	mock drills into its e emergency equip fied corrective act	response planning. The pment. A debrief is colors. Action items are	onse procedures and incorporates e mock drills are also conducted to nducted to discuss lessons learned incorporated into the Musselwhite	
9. DIALOGUE: E	Engage in public c	consultation and disclos	ure.	
Standard of Practice 9.1:	Provide sto	akeholders the opport	unity to communicate issues of	
The operation is	in substan	mpliance with attal compliance with appliance with	Standard of Practice 9.1	
Basis for Audit Finding: Musselwhite provides many avenues of opportunity for stakeholders to communicate issues of concern regarding the management of cyanide at the mine. Musselwhite set up the EWC with the First Nation Councils in 2001. Through the EWC, First Nation representatives and other resource personnel learn and discuss environmental issues the site deals with and participate in the decision process regarding topics potentially affecting their interests.				
_			include cyanide facilities. MOE in industrial sewage inspection.	
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Inspections include site tour, discussion and sampling. Opportunities for public input were also available during the project development and permitting phase of the mine.

Musselwhite's sustainability reports include address and telephone numbers of the site as well as cyanide management information. The 2007 sustainability report includes an explanation of the milling operations including cyanide use and consumption rates for different years of production. The 2006 sustainability report also presents a description of the cyanide recovery and destruction circuit. The 2007 sustainability report is available to public at its corporate website. The site also has a "Contact_Info" tab that allows an individual to contact the company via telephone.

Standard of Practice 9.2:	Initiate dialogue describing cyanide responsively address identified concer	
The operation is	in full compliance with in substantial compliance with not in compliance with	Standard of Practice 9.2
practices through EWC meeting	Musselwhite provided information rengs, mine industrial sewage inspection groundwater modeling, surface water in	ns, consultation meetings and
an explanation of the milling of years of production. The 20 recovery and destruction circuit	c with a sustainability report. The 200 operations including cyanide use and composition of sustainability report also presents t. The 2006 sustainability report is in tions in this region of Ontario).	consumption rates for different a description of the cyanide
Standard of Practice 9.3:	Make appropriate operational and regarding cyanide available to stakeho	
The operation is	in full compliance with in substantial compliance with Not in compliance with	Standard of Practice 9.3
sustainability and technical rep- form (i.e., visual presentations present during the EWC meeting discussed with First Nation repro- ton the use	usselwhite provides information on coorts (i.e., groundwater modeling, surfacto the communities). A translator from tags, where environmental issues and resentatives. Musselwhite corporate we and management ations/musselwhite/processing/).	ce water monitoring)) and oral n English to Ojicree is always initiatives at Musselwhite are
frames. The Spill Prevention I cyanide. All spills entering the off the mine site will also be r	corresponding regulatory agencies wi Plan, described in the EPP, states the natural watercourse will be reported re eported. These regulatory agencies manada, Department of Fisheries and O	reportable quantity for sodium gardless of quantity. All spills ay include MOE Spills Action
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and OPP. Spill information reported to MOE is available upon request to public. Information on reported spills is presented in Goldcorp sustainability reports in a "Reported Environmental Incidents" table. Musselwhite is also required to immediately report to the MOL any worker fatalities or critical injuries. Musselwhite's reporting categories effectively cover the release and exposure scenarios identified in the Code.

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