Ontario Ministry of Labour
Mining Health and Safety Branch

SUMMARY OF REPORTABLE INCIDENTS

January 1 to December 31, 2004

Note that the specific reporting requirements are listed in the OHS Act, section 53 and in Regulation 854/90, section 23 (5). The categories below have been arranged for information purposes only.

NOTE: For occurrences resulting in a **FIRE** **(F)** is added to the subscript.

EF – EQUIPMENT FAILURE OR DAMAGE

Event ID: 1048505 **EF** **(F)** **15-Jan-04**

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Incident:
The fire department was called about a fire in the area of the mine heater. It was extinguished by cutting off the propane supply from the storage tank. No injuries, no damage.

Cause:
None Given

Preventative Measures:
The area was sealed off for a period of 12 hours for cooling purposes. A complete inspection was conducted to insure that all electrical connections were safe and de-energized where applicable.

Event ID: 1048442 **EF** **(F)** **17-Jan-04**

Falconbridge - Craig Mine

Incident:
After starting the MB16 the operator noticed the smell of burning rubber. He immediately conducted a circle check and found a small fire coming from the starter; he then turned off the master switch. After failing to put the fire out with a hand held fire extinguisher, he used the suppression system to completely put out the fire. No injuries or damage was reported.

Cause:
The rubber casing on the starter solenoid caught fire. There was little damage to the main battery wire and the exciter wire due to the fire.

Preventative Measures:
The unit was brought to the wash bay and the fire suppression was recharged and the vehicle was repaired and put back into service.

Event ID: 1048768 **EF** **(F)** **22-Jan-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
Workers noticed timbers situated to the east of the No. 17 MPV smoldering and extinguished it with a fire extinguisher. No injuries, no damage.

Cause:
None Given

Preventative Measures:
Remove combustible materials from the area.

Event ID: 1049088 **EF** **02-Feb-04**

Inco Ltd. **- Copper Cliff Nickel Refinery**

Incident:
At approximately 1:15 p.m. power was lost to the electrowinning tankhouse bridge crane. Without the ability to reverse the crane motor and the fact that the brake pedal is in an awkward position, the crane operator applied the emergency stop. The crane stopped but not before the suspended load of cathodes struck the stripping machine wash box. None of the cathodes fell. No injuries, no damage.

Cause:
A splice in one of the trolley cables caused a connector shoe to drop out of position. This disabled full power to the bridge crane.

Preventative Measures:
The spliced trolley wire will be replaced.

Event ID: 1050339 **EF** **25-Feb-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
The crane operator was unloading anodes from the anode rail. On a return trip the operator began to move the trolley on the No. 1 tankhouse crane when a failure occurred within the master controller, resulting in continuous motion of the trolley. He then pulled the disconnect switch located inside the cab of the crane to stop movement of the trolley. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
The No. 1 tankhouse crane was removed from service and an investigation is under way to determine the cause of the failure and corrective measures.

Event ID: 1051065 **EF** **15-Mar-04**

Inco Ltd. **-** **Copper Cliff North Mine**

Incident:
The main 16-inch compressed air line ruptured about 70 feet below the shaft collar in the pipe compartment. Mobile compressors were put into service to supply compressed air to the underground workplaces. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
The main compressors were shut down and the airline was isolated between the surface and the 400 Level. The hoistman did a trial run after burst and shaftmen did a visual inspection of the cage compartment afterward. A failed line was secured in place by the shaft crew and will be removed. A hole for a new airline is presently being drilled from the surface to the 400 Level to take the line out of the shaft.

Event ID: 1051273 **EF** **(F)** **25-Mar-04**

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Incident:
There was a fire on a Cubex ITH drill. The operator attempted to extinguish the fire and when that didn't work he initiated the stench. All personnel were accounted for and the mine rescue team was sent to put out the fire. By the time the team arrived the fire had self-extinguished. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1051314 **EF** **27-Mar-04**

Falconbridge - Falconbridge Smelter

Incident:
The #3 crane auxiliary hook caught the #6 converter hood door without the craneman realizing it. When the crane backed up, the hood door damaged a post that supports a festoon cable for a feed belt. The auxiliary cable was later found to be damaged. No injuries.

Cause:
None Given

Preventative Measures:
The crane was taken out of service until the cable can be changed. The craneman was spoken to regarding operating practices, and the hood door will be looked at to see if it can be fixed so the hook will not catch.

Event ID: 1049137 **EF** **02-Apr-04**

Inco Ltd. - Clarabelle Mill

Incident:
There was a catastrophic failure at coupling on the #1 high-pressure gland water pump, which caused pump parts to be thrown around the pump room. No personnel were in the pump room at the time of the occurrence. Damage to an instrument cable mounted on a nearby wall occurred as a result of flying parts. No injuries.

Cause:
None Given

Preventative Measures:
Covered the adjacent similar pump with a Kevlar blanket to protect workers until the failure is understood. Communicate failure internally with the preliminary report. Further action is pending a joint investigation.

Event ID: 1049241 **EF** **(F)** **02-Apr-04**

Montcalm **- Montcalm Mine**

Incident:
A minor fire occurred on the surface while workers were installing the mine air heater. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1053143 **EF** **04-Apr-04**

Inco Ltd. **- Clarabelle Mill**

Incident:
At approximately 11:00 a.m., mechanics were in the process of installing mill liners. During this operation, a failure of a lifting lug on a cast steel liner occurred, causing the liner to fall approximately 4 feet, coming to rest against another liner. The potential for serious injury to workers in the immediate vicinity was high. No injuries.

Cause:
None Given

Preventative Measures:
The job was immediately suspended, NDE analysis was performed on the lifting lugs from other liners on hand to ensure their integrity prior to usage.

Event ID: 1054093 **EF** **15-Apr-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
A crane operator was in the process of lowering a load into the dip tank but when he attempted to raise it with a hoist, it did not come back up and continued to go down. No injuries or damage reported.

Cause:
None given

Preventative Measures:
None given

Event ID: 1054324 **EF** **(F)** **20-Apr-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While cleaning build-up in the #1 furnace uptake, the hoe ram experienced a hydraulic leak that resulted in a small amount of hydraulic fluid coming into contact with the furnace roof. The fluid ignited and was promptly extinguished. No injuries, no damage.

Cause:
During the build-up cleaning activity, a leak developed in a hydraulic hose.

Preventative Measures:
The contractor performing this routine activity will modify the pre-use inspection to include activation of all functions on the unit to check for leaks.

Event ID: 1054401 **EF** **(F)** **25-Apr-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
An operator was off-loading coke pneumatically from the trailer to the #1 furnace coke storage bin when he noticed that the gasket between the hopper cone (not in use) and the vibrator was burning. The operator immediately closed the discharge valves on the hoppers in use, shut off the transport air and extinguished the fire. No injuries.

Cause:
None Given

Preventative Measures:
The trailer involved in the incident was removed from service pending the outcome of the investigation. As an interim measure, inspection of the vibrator assemblies has been incorporated into the pre-use inspection of the trailers before off-loading commences.

Event ID: 1054587 **EF** **02-May-04**

Falconbridge **- Kidd Creek - Mill/Concentrator**

Incident:
An aluminum lime pipe approximately 18' long separated at the mechanical fitting below the swivel joint. This line is located at the southeast corner of the concentrator outside the reagent area man door. The pipeline was a cantilevered line, which was being placed over the Kidd tanker truck to load liquid lime into the tanker truck. A Kidd truck driver was positioning the off loading line over the tanker by a guide rope from ground level, he then proceeded to climb up the tanker portion of the truck and the off loading line then broke apart at the threaded joint and fell narrowly missing the truck operator. No injuries.

Cause:
None Given

Preventative Measures:
The area has been banner taped off and the concentrator shift super is generating an incident report with follow up recommendations.

Event ID: 1018112 **EF** **05-May-04**

Falconbridge - Falconbridge Smelter

Incident:
The #4 crane operator was dumping the residue out of a refractory lined ladle at the bumper block. As he was hoisting the auxiliary hoist, the yoke of the tail chain assembly broke around the J-hook. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052432 **EF** **(F)** **10-May-04**

Inco Ltd. - Clarabelle Mill

Incident:
At approximately 12:20 pm, a fire was noticed coming from the area of the #7 mill cyclone underflow box. The Clarabelle mill complex was vacated as per protocol. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052278 **EF** **(F)** **18-May-04**

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Incident:
A worker was burning a bolt off of a tugger mounting assembly and after closing the torch he noticed a fire burning at the acetylene gauge. He walked over to the tank and turned off the valve and the fire self-extinguished.

Cause:
There were no flash arrestors on the unit.

Preventative Measures:
A hazard alert will be sent out to ensure all crews check that arrestors are in place prior to usage.

Event ID: 1052460 **EF** **(F)** **09-Jun-04**

Inco Ltd. **- Matte Processing**

Incident:
A fire resulted from a pump failure. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052459 **EF** **09-Jun-04**

Inco Ltd. **- Matte Processing**

Incident:
A #4 water pump seized abruptly causing the coupling to come apart, the guard to be moved and the pump to break free of its base bolts. No injuries, and the extent of the damage is under investigation.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1047885 **EF** **01-Jul-04**

Falconbridge **- Falconbridge Smelter**

Incident:
The #2 block on the #3 crane raised through the high limit and damaged the cable. This also caused the hook guide to fall off the crane cable. No injuries, no damage.

Cause:
None Given

Preventative Measures:
The crane and hook guide will be put out service until they can be inspected and repaired.

Event ID: 1048029 **EF** **(F)** **01-Sep-04**

Falconbridge - Falconbridge Smelter

Incident:
A belt caught fire from a lack of suction to the #2 roaster. The fire was extinguished using a fire extinguisher. No injuries, no damages.

Cause:
None Given

Preventative Measures:
Repairing the veins to the 012 ID fan restored proper suction to the #2 roaster.

Event ID: 1049485 **EF** **02-Dec-04**

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Incident:
A crew was in the process of disconnecting sections of paste fill in preparation for washing it. One of the braces failed, causing the pipe to fall and land on the roof of the jeep. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

EL – ELECTRICAL

Event ID: 1048412 **EL** **(F)** **15-Jan-04**

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Incident:
At approximately 6 p.m., smoke was noticed coming from the #2 powerhouse. The local fire department was called but no evidence of a fire was found. No injuries, no damage.

Cause:
None Given

Preventative Measures:
All electrical breakers and associated equipment were inspected. One light fixture was removed and one breaker is being repaired. The circuit has been de-energized.

Event ID: 1048525 **EL** **(F)** **19-Jan-04**

Falconbridge - Kidd Creek - Met. Site

Incident:
A 4160-volt starter caught fire at the #9 electrical sub-station, zinc plant roaster. The fire was confined to one cabinet starter. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048498 **EL** **(F)** **20-Jan-04**

Exall Resources Ltd. **- Glimmer Mine**

Incident:
There was an electrical short in the heat tracing, which caused a fire on the pipe enclosure in the yard. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048945 **EL** **25-Jan-04**

Newmont Canada Ltd. **- Golden Giant Mine**

Incident:
The vent fan monitoring system indicated that the west return ventilation fans were not running. The shift electrician was directed to check the fans and found that the main breaker feeding these fans had shorted across the termination lugs in the line side, which in turn caused the breaker in the main MCC room to trip. No injuries, and damage was limited to the termination lugs and leads on the line side of the 1200 A main breaker and some low voltage control wiring within the breaker cabinet.

Cause:
None Given

Preventative Measures:
The breaker and related electrical connections were inspected with infrared thermograph in August of 2003 and no anomalies were indicated at that time. As no direct cause can be determined, a new circuit breaker will be installed and the fans returned to service.

Event ID: 1048878 **EL** **(F)** **26-Jan-04**

Inco Ltd. **- Copper Cliff Nickel Refinery**

Incident:
At 7:15 p.m., an electrowinning operator was sent down to resent the rectifier. Upon arrival he noticed smoke coming from the rectifier room and found a fire burning in the southwest corner consisting of small pieces of wood and old wiring stored in the area. The fire was extinguished using two portable fire extinguishers by the operator and the team leader. No injuries.

Cause:
Material stored in an area exposed to sparks from arcing buss bars.

Preventative Measures:
None Given

Event ID: 1048692 **EL** **26-Jan-04**

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Incident:
There was an electrical breaker failure (1200 amp, 600 volt) line side leads burned off supplying power for west side. No injuries, minimal damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1049086 **EL** **(F)** **02-Feb-04**

Inco Ltd. **-** **Copper Cliff Nickel Refinery**

Incident:
An operator working in the electrowinning tankhouse noticed a fire burning on one of the bridge crane trolley wires. The plant electrician was in the area at the time and shut off the power to the crane. The fire was then extinguished using a water hose. No injuries.

Cause:
Acid misting from the tankhouse operation causes precipitate to form between the stainless steel bolts and trolley wire where they connect. Over time, this can cause a short to occur.

Preventative Measures:
None Given

Event ID: 1049831 **EL** **18-Feb-04**

Placer Dome **-** **Musselwhite Mine**

Incident:
A diamond drill contractor (Boart Longyear) was moving a diamond drill along an access road on the side of the old quarry with a bulldozer. The diamond drill mast was up at the time and it came into contact with hydro lines. No injuries.

Cause:
Lack of communication between dayshift and nightshift regarding a planned move and the associated hazards contributed to this incident. The operator should have lowered the diamond drill mast prior to relocating the drill.

Preventative Measures:
All diamond drill moves occurring on solid ground (not applicable on lakes or ice) are to occur with lowered masts.

Event ID: 1050199 **EL** **27-Feb-04**

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Incident:
A worker received an electrical shock as he unplugged an electric jackhammer while chipping ice in a tunnel. He was taken to the hospital. No damages were reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050287 **EL** **(F)** **03-Mar-04**

Falconbridge - Falconbridge Smelter
Incident:
The wires on the connector for the control board burnt off causing a flash which burnt the harness and control board. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050888 **EL** **(F)** **15-Mar-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
A fire developed when the #3 rectifier was powered up. No injuries, no damage.

Cause:
The bus bar bracket was touching the stainless steel ladder causing a short to develop in the circuit. This short caused a hot spot which in turn caused the fire.

Preventative Measures:
A ¼ inch x 6 inch x 6 inch piece of white plastic was placed between the bracket and ladder acting as an insulator.

Event ID: 1051312 **EL** **(F)** **26-Mar-04**

Inco Ltd. **- Frood Mine**

Incident:
An electrical fire occurred on the trolley. No damages were reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054104 **EL** **18-Apr-04**

Inco Ltd. **-** **Copper Cliff North Mine**

Incident:
A dump truck made hydro contact in the yard and took down three phases. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1018119 **EL** **(F)** **24-Apr-04**

Falconbridge **-** **Fraser Mine**

Incident:
A Scepter VPB150 light fixture was found burnt and some plastic from the fixture was melted. A worker entered the latrine and found the fixture in a burnt and melted condition. There were ashes on the latrine floor which would lead us to suspect a bundle of Kim towels could have been stored on the fixture. Upon investigation, it was mentioned that a faint smell of smoke had been noticed by some workers the previous week but nothing had been found. No injuries.

Cause:
None Given

Preventative Measures:
The light fixture was replaced and a high potential loss announcement was issued.

Event ID: 1048019 **EL** **(F)** **01-Sep-04**

Inco Ltd. **-** **Coleman Mine**

Incident:
While connecting the collector arm to the trolley line at location #2, the operator noticed a small flame. The flame was extinguished using a hand held fire extinguisher. No injuries.

Cause:
The overheating of the electrical components caused the fire.

Preventative Measures:
None Given

Event ID: 1049348 **EL** **02-Oct-04**

Falconbridge **-** **Falconbridge Smelter**

Incident:
An accidental release of water from a hose left in the ESP section of the 5th floor caused a flood. Water leaked into the #1 MCE 2 1/2 floor causing a 3-phase fault that resulted in a flashover generating significant heat that melted the copper bus bars.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050642 **EL** **(F)** **03-Oct-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
While operating a rock breaker, the operator noticed a flame near the electric motor. He immediately shut down the unit and used a handheld extinguisher to put out the fire. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

EX-EXPLOSIVES

Event ID: 1050201 **EX** **03-Jan-04**

Inco Ltd. **- Stobie Mine**

Incident:
Three electrical detonators were found in the surface dry. No injuries, no damage.

Cause:
None Given

Preventative Measures:
The caps were returned to an underground storage. Workers will have a demonstration presented to them regarding the dangers of carrying detonators on their person.

Event ID: 1048137 **EX** **13-Jan-04**

Inco Ltd. **- Creighton Mine**

Incident:
The diamond drill foreman was performing checks and housekeeping on his Toyota Jeep which had just arrived from the North mine for use at the Creighton #3 shaft when he discovered a powder bag with clamps, a lead wire and a nonel cap in the bag. No injuries or damage.

Cause:
None Given

Preventative Measures:
The nonel cap was turned over to the operating department, which properly stored the cap in an underground magazine. An investigation is ongoing to determine how and why the blasting cap was left in a powder bag and to determine the quality of the pre inspection before the unit was sent out.

Event ID: 1048480 **EX** **16-Jan-04**

Inco Ltd. **- Stobie Mine**

Incident:
Two electric detonators were found in the powder magazine on the 1950 level. The shelves were being rebuilt and the detonators were found behind one of the old shelves. No damage, no injuries.

Cause:
None Given

Preventative Measures:
The electronic detonators were removed and placed in the correct storage.

Event ID: 1048996 **EX** **29-Jan-04**

Inco Ltd. **- Stobie Mine (surface)**

Incident:
An employer found an electric detonator in a pocket of some clothes that were being laundered. The detonator was immediately removed to proper storage in an underground magazine. The employee did not report this incident to supervision until January 31. No injuries, no damage.

Cause:
None Given

Preventative Measures:
The detonator was immediately removed to proper storage in an underground magazine, however the worker who discovered it failed to report the incident to his supervisor until two days later. The incident will be reviewed with workers with the proper handling of explosives emphasized.

Event ID: 1050367 **EX** **25-Feb-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
An employee opened the glove compartment on the 260 haulage truck to get a status tag and discovered an electrical blasting cap in the glove box. No injuries, no damage.

Cause:
It appears an unused electric blasting cap was not returned to a cap magazine.

Preventative Measures:
The employee that discovered the electric cap contacted his supervisor and the electric cap was returned to the nearest cap magazine underground. The supervisor attempted to contact the safety supervisor to report the incident immediately but the message was not received. The supervisor proceeded to complete a report, which was shared with the safety supervisor on March 4, 2004. It will be clearly stated that the supervisor reporting any mishandling of explosives will verbally discuss one on one the incident with the safety supervisor or safety on call, leaving a message will not be acceptable. The safety supervisor or safety on call will then report the incident immediately to the Ministry of Labour. The south mine report states "educate people again and disciplinary action will be enforced." Section 128 of regulation 854/90, operation and housekeeping of magazines will be reviewed.

Event ID: 1051662 **EX** **29-Mar-04**

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Incident:
Three bags of powder were discovered in the 362 vein east drift at the entrance on the drift, middle of drift. Caps for end were stored in the 350 court vein east drift at the entrance on the left hand wall. The electrical caps were on the ground with nonels. No injuries, no damages.

Cause:
None Given

Preventative Measures:
Two workers returned the powder and the caps to their proper storage areas. The two workers responsible were given two days off without pay.

Event ID: 1054274 **EX** **13-Apr-04**

Fauquier Quarry -

Incident:
A chunk of rock landed on nearby farmland, cracking the house's chimney after a blast in the pit was initiated. No warning of the blast was sounded. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1053918 **EX** **14-Apr-04**

Inco Ltd. **- Coleman Mine**

Incident:
While an employee was cleaning up the unloading area he discovered a nonel under a pallet. The area where the cap was found is an unloading area and is not an active area where blasting would take place. No injuries or damage.

Cause:
None Given

Preventative Measures:
The incident was immediately reported to the supervisor who then made arrangements for the safe return of the cap to the fuse magazine on the 4550 Level. A thorough search of the area was conducted to confirm that there were no other explosives in the area. Further measures are being jointly taken to stress to workers the severity of this unsafe act.

Event ID: 1054099 **EX** **18-Apr-04**

Inco Ltd. **- Stobie Mine**

Incident:
Three electronic detonators were found in their powder magazine. Normally they are kept in a separate storage area. No injuries, no damage.

Cause:
Careless placing or handling of explosives.

Preventative Measures:
The detonators were returned to proper storage. The explosives magazines were audited.

Event ID: 1054188 **EX** **19-Apr-04**

Wilmac Paving Ltd. **- Quarry**

Incident:
A cap and primer were found, they had not exploded. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054279 **EX** **21-Apr-04**

Inco Ltd. **- Creighton Mine**

Incident:
A worker was searching for parts in the old decommissioned 5 shaft hoistroom when he noticed a grocery bag in some old vent tubing that contained 10 sticks of powder. No injuries, or damage.

Cause:
None Given

Preventative Measures:
The sticks of powder were turned over to the operating department personnel who properly stored them in an underground magazine. An investigation is ongoing to determine how the powder was left in a plastic grocery bag in a remote area of the complex.

Event ID: 1054456 **EX** **28-Apr-04**

Inco Ltd. **- Stobie Mine**

Incident:
A scissor truck was being washed for service when a nonel detonator was discovered on the floor in the passenger's compartment. No injuries, no damage.

Cause:
A nonel detonator was dropped on the floor of the scissor truck and not noticed by the operator.

Preventative Measures:
It was removed to proper storage. Crews will be made aware of this incident and reminded of the rules of proper care, handling and storage of explosives.

Event ID: 1052437 **EX** **14-May-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
Detonators were found at the dewatering finger on the 2250 level. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052442 **EX** **20-May-04**

Inco Ltd. **- Coleman Mine**

Incident:
A worker noticed a nonel cap in a box of Trimrite powder that had been returned to the powder magazine. The nonel cap was inserted into the Trimrite stick powder. No injuries or damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1047882 **EX** **01-Jun-04**

Inco Ltd. **- Stobie Mine**

Incident:
A worker on the 1800 Level found two electric detonators in the shuttle car and one electric detonator in the transfer car, both of which are out of service. He immediately notified his supervisor who had the detonators returned to a fuse magazine. No injuries, no damage.

Cause:
None Given

Preventative Measures:
The detonators were removed to safe storage, further action may result from the investigation.

Event ID: 1018142 **EX** **01-Jun-04**

Inco Ltd. **- Stobie Mine**

Incident:
A mechanic was bringing in a 520 Kubota into the garage at the 2400 Level for servicing and he found a booster on the frame of the radiator. The area was gaur railed, supervision was notified, the investigation is ongoing now and the booster will be returned to the proper storage area. No injuries or damage reported.

Cause:
While repairing the Kubota a mobile mechanic found a Pentex booster behind the radiator, sitting on the frame in the engine compartment.

Preventative Measures:
None Given

Event ID: 1049201 **EX** **02-Jun-04**

Inco Ltd. **- Stobie Mine**

Incident:
Mechanics found explosives in an Anfo loader that had been washed for an inspection of the scissor assembly and subsequently parked in the garage. They immediately notified the supervisor who returned them to a proper magazine. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050560 **EX** **03-Aug-04**

Inco Ltd. **- Creighton Mine**

Incident:
A worker found an electric blasting cap on the ground in the rock pass drift on the 7000 Level near the #9 shaft area. He handed the cap to his supervisor who made arrangements with the operating supervisor to return the cap to its designated storage. The area where the cap was found is a decommissioned rock pass drift now used for storage of supply truck, this is not an active area where blasting would take place. No injuries, no damage.

Cause:
None Given

Preventative Measures:
A thorough search of the area was conducted to verify there were no other traces of explosives. Further measures are being jointly developed to stress to workers the severity of this unsafe act.

Event ID: 1050677 **EX** **03-Sep-04**

Falconbridge **- Kidd Creek - #3 Mine (Lower)**

Incident:
A worker found a cap inserted into a primer and stored in a box in the explosive magazine on the 4850 Level. It is unknown exactly when or by whom the cap and primer were placed in the magazine. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1053813 **EX** **04-Dec-04**

Inco Ltd. - Coleman Mine

Incident:
A worker discovered 12 electric blasting caps while looking through a parts bin. He immediately reported this to his supervisor who made arrangements for their safe return to the fuse magazine on the 3575 Level. The area where the caps were found is a storage area and is not an active area where blasting would take place. No injuries, no damage.

Cause:
None Given

Preventative Measures:
A thorough search of the area was conducted to verity that there were no other explosives. Further measures are being jointly taken to stress to workers the severity of this unsafe act.

FG-FLAMMABLE GAS

Event ID: 1053033 **FG** **04-Jan-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 10:00 a.m., a diamond driller on the 2800 Level, 1000 diamond drilling station reported the presence of gas at the collar of hole #113125 (-60). No injuries or damages.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed proper signs were posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1050218 **FG** **17-Feb-04**

Inco Ltd. - Copper Cliff North Mine

Incident:
S02 gas was first noted on the 3000 Level coming from 890 stope. The ventilation department was contacted and S02 monitoring began and measures taken to exhaust the S02 into the exhaust air system. No injuries no damages.

Cause:
Due to the high-grade nature of the ore, it is believed the ore is heating up and producing S02 gas.

Preventative Measures:
The S02 gas is being exhausted into the 801 return air raise on the 3000 Level. The access ramp to the 3100 Level remains guard railed off at the intersection with 801 access drift on the 3000 Level. The access to the 890 fan station on the 2400 Level remains closed. The worker safety representative was notified of the occurrence.

Event ID: 1051091 **FG** **15-Mar-04**

Inco Ltd. - Copper Cliff North Mine

Incident:
At approximately 1:30 p.m., the diamond driller on the 2800 Level, 0750 diamond drilling station reported the presence of gas at the collar of hole #110588, (-37). No injuries, no damages.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs were posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1051948 **FG** **30-Mar-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 9:00 p.m., the diamond driller on the 2800 Level, 1000 diamond drilling station reported the presence of gas at the collar of the diamond drilling hole #113125 (-60). No injuries, no damages.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1052806 **FG** **31-Mar-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 5:00 a.m., the diamond driller on the 3000 Level, 9510 diamond drilling station reported the presence of gas at the collar of the diamond drilling hole #2845-3 (-16.5). No injuries, no damage.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1054400 **FG** **24-Apr-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 10:00 a.m., the diamond driller on the 2800 Level, 0450 diamond drilling station reported the presence of gas at the collar of the diamond drill hole #113142 (-33). No injuries, no damage.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1054561 **FG** **29-Apr-04**

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Incident:
At approximately 4:30 p.m., the diamond driller on the 2800 Level, 0750 diamond drill station reported the presence of gas at the collar of the diamond drilling hole #113131 (-57). No injuries, no damage.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1052449 **FG** **23-May-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 1:00 p.m., the diamond driller on the 2800 Level, 1000 diamond drill station reported the presence of gas at the collar of the diamond drill hole # 113138 (-55). No injuries, no damage.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1052453 **FG** **29-May-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
While drilling with a diamond drill on hole #113603, (-540) at a depth of 1,280 the diamond driller noticed water gushing out of the hole collar and a smell associated with flammable gas. No injuries, no damage.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

Event ID: 1053706 **FG** **04-Jun-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 9:00 a.m., the diamond driller on the 2800 Level 1000 diamond drilling station reported the presence of gas at the collar of the diamond-drilling hole #113125 (-60). No injuries, no damage.

Cause:
None Given

Preventative Measures:
Standard methane procedures were followed, proper signs posted on barricades, and compressed air blowing on the collar of the hole. There were no readings in the general atmosphere.

HS-HOISTING

Event ID: 1052979 **HS** **04-Jan-04**

Falconbridge - Fraser Mine

Incident:
A chunk of waste from the loading pocket fell down the production shaft below the 5000 Level and got caught between the arc gate and the discharge chute. A mechanic was sent down to investigate the situation and found that the logged chunk did not pose an obstruction to the conveyance and gave the hoistman the all clear to move the skip up. As the 10-ton Wabi skip was moving out of the loading zone it caught the chunk and caused it to fall down the shaft where it came to rest at the base of the arrestors. No injuries, no damage.

Cause:
None Given

Preventative Measures:
The shaft bottom was roped at the ramp access until personnel can bat it off its resting place.

Event ID: 1048531 **HS** **19-Jan-04**

Falconbridge - Thayer Lindsley Mine

Incident:
The #2 conveyance was sent to the 1490 Level from surface as a crew was in the process of lowering materials onto that level. A hoistman received a stray bell and had to stop the conveyance as it was going by the 60 Level. The shaft crew walked down the manway from surface and found that the door on the conveyance was damaged and part of it fell down the shaft. The door was then secured inside the conveyance and sent back to surface. No injuries.

Cause:
The door was bent as it came into contact with the 60 Level. The conveyance was not likely latched properly before it was sent to the 1490 Level.

Preventative Measures:
A shaft inspection was conducted including both hoist ropes and conveyances. A new door was installed on the #2 cage. The incident will be reviewed with all cage crews.

Event ID: 1050453 **HS** **17-Feb-04**

Goldcorp Inc. - Red Lake Mine

Incident:
At approximately 3:00 a.m., the #1 side shaft sinking crosshead and bucket fell approximately 6 feet from the upper chairs. The shaft crew were in the mucking cycle, and the top lander (worker who operates dump door facilities) had just chaired the crosshead and was waiting for the loaded sinking bucket to come to the dump area when the incident occurred. No injuries or damages were reported.

Cause:
It would appear that the snap-ring type retainer for the rod and cylinder pin was missing and the pin had worked its way out of the chair and was only in one side of the female rod eye. The chair bearing angle was bent such that the chairs looked slightly down into the shaft. The crosshead bale angles were bent, such that the crosshead suspension frame sloped down away from the chair. The resulting rope whip did damage to the underside of the rope opening in the hoist house. An inspection of the rope and attachments did not reveal any detectable damage. The dolly ball did no slip. Cotter pin type cylinder pins had been specified in the chair cylinder and pin order. The crosshead guide shoes were not fabricated in accordance with the design drawings. The corners of the guide show flares were not trimmed on a 45 degree angle as specified in the drawings. These corners were trimmed with a hand-held torch on site prior to the incident, but were left in the rough as cut condition.

Preventative Measures:
The following repairs were performed and the shaft bucket and crosshead were put back into service: the damaged chair bearing angle was replaced; all of the chair cylinder pins were replaced with cotter pin style retainers; the bent bale angles were straightened sufficiently to resume operation; new bale angles have been ordered and will be installed as soon as they arrive on site, expected shipping date is February 25th. A further investigation into the incident revealed the following: the marks on the bearing area of the chair indicate that the crosshead had severely impacted the chair; the guide backer flexes outward slightly when the crosshead chairs; the repaired chair bearing angle is fabricated such that it prevents the cylinder from fully extending and fully retracting the chair. The chair does retract enough to adequately clear the crosshead. In addition to the initial action taken by site, the following actions have been taken or will be performed: new upper chairs are to be fabricated so that the chairs protrude 1 inch further into the shaft; the inside of the chair provides an additional 1/2 inch clearance around the guide shoes; the trimmed corner of the guide shoes is to be trimmed back further on a more gentle angle and the cut surface ground smooth.

Event ID: 1050457 **HS** **22-Feb-04**

Goldcorp Inc. - Red Lake Mine

Incident:
At approximately 11:00 p.m. at the #3 shaft , the bottom of the #2 side shaft sinking crosshead hung up on the lower crosshead chair. Several feet of slack rope was payed out and the crosshead slipped off of the chair. The crosshead fell and came to rest when the chairing bars at the top of the crosshead engaged the lower chairs. The Sargeson released the bucket and it fell to the end of the slack rope. No damage was detected to the rope, crosshead or attachments. No injuries were reported.

Cause:
The crosshead guide shoe angles were rubbing on the inside of the guide shoe cut out in the chair. The guide shoe on the lower chair drawing is 3 & 5/8 inches long. The actual guide shoe length is 4 & 1/2 inch, which is in accordance with the crosshead design drawing. This significantly reduces the nominal clearance.

Preventative Measures:
The following repairs were performed and the bucket and crosshead were put back into service: new lower chairs were fabricated and the clearance around the guide shoes was increased substantially; new lower chairs are to be fabricated that are to provide 1 inch more clearance from the end of the guide shoe and provide 1/2 inch more clearance from the outside of the guide shoe flare. The trim on the guide shoes is to be trimmed back further on a gentler angle and cut surface ground smooth.

Event ID: 1050281 **HS** **03-Mar-04**

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Incident:
A 1.5 ton air hoist ran off the track beam due to failure of some mechanical equipment associated with hoist. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050853 **HS** **13-Mar-04**

Falconbridge - Strathcona Mill

Incident:
Operators were preparing to load steel balls into the #1 ball-bin in grinding aisle. Without the load attached, the 30 ton hoist lowered on its own. A few minutes later, it lowered on its own again. The operators checked the remote and found that the buttons were not stuck. A minute later, the light went on and the bridge moved forward on its own about 6 to 8 feet and struck the ball bucket. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
The shift electrician was called to investigate. The remote was cleaned and the crane was tested up and down without fault. The operators then tested the remote within door 101 grinding bay. The bridge was witnessed moving in the forward direction up to the stops at door 101. The electrician tagged out the crane pending further investigation of the remote.

Event ID: 1050981 **HS** **17-Mar-04**

Goldcorp Inc. - Red Lake Mine #3 shaft

Incident:
A hoisting incident occurred at approximately 3:30 a.m. today involving the #2 compartment sinking crosshead/bucket and the shaft safety doors located just below the shaft collar. By the time the hoist operator realized there was a problem the hoist rope on the drum came loose. There were workers on the bottom of the shaft at the time of the incident, however there were no injuries. This is the third such incident this month involving a crosshead/bucket at this shaft sinking operation. No damages.

Cause:
None Given

Preventative Measures:
Production below the shaft collar has been stopped pending a complete investigation.

Event ID: 1054103 **HS** **16-Apr-04**

Inco Ltd. - Creighton Mine

Incident:
While greasing and inspecting the #4 skip rope, two protruding wires in the rope got caught in the greasing system. The industrial mechanic immediately stopped the skip conveyance. This was discovered at approximately 70 feet above the skip recap. The rope in question was installed seven days earlier and an electromagnetic test was conducted to confirm its integrity. A recap of the #4 skip rope is in progress. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
We are following up with the manufacturer of the #4 skip rope to determine the cause of the abnormality. The #3 skip rope was also changed on April 10, 2004. An electromagnetic test has confirmed the integrity of the #3 and #4 skip rope. Inco senior hoist mechanical engineer and NDE specialist have also reviewed these findings confirming their integrity.

Event ID: 1054096 **HS** **17-Apr-04**

Goldcorp Inc. - Red Lake Mine

Incident:
The Ministry of Labour was notified that the #2 shaft sinking bucket hung up again on the equipping stage deck safety door while apparently traveling down the shaft with an empty bucket. The number one bucket was traveling to the surface dump fully loaded at the same time. The crew were on the mucking cycle of shaft sinking. No injuries or damage was reported.

Cause:
It is believed the cause of this event was because of muck still inside the shaft bucket. This caused the bucket to ride unevenly.

Preventative Measures:
Post a worker on the equipping deck to observe the bucket travel through the deck while mucking. Review dumping procedures with all dumpmen and post procedure at the dump area. Instruct the hoistmen to ensure that the dumping process is slow enough to allow for the complete emptying of the shaft buckets. Review and revise procedures to add the changes made based on the event. Added a temporary positive mechanical device to the latch on the hook attachment to prevent inadvertent opening. The number two shaft bucket was hung up at the equipping stage deck which resulted in the bucket attachment hook releasing from the bucket chains. There was a problem. Long-term Corrections: our engineering group has commenced today to engineer a positive mechanical device to the latch on the bale hook to prevent inadvertent opening. Determine if there is a possibility of a flare of the door to allow for slight deflection. Post procedure at dump. Review the incident and actions with other shaft projects and with the Ontario Mine Safety Association members. The engineering department will be investigating the other possibilities to prevent a reoccurrence, with or without a worker on the equipment deck on the mucking cycle. Please note that the worker would by on the second deck which would allow him to see and hear, without exposing him to the hazard. The top deck would afford him protective cover. Cementation's manager of safety and training will be on-site Monday, April 19th to audit the procedures, training method, and to determine what other training may be required other than what is already in place. An independent auditor, with engineering and operating experience in shaft-sinking, will be engaged to review the process in general and provided comments and suggestions.

Event ID: 1054292 **HS** **21-Apr-04**

Fox Point Resources **- Macassa- #3 shaft**

Incident:
An Alimak rail was being transported to the surface in the #1 compartment cage and it fell out and down the shaft 500 feet. No injuries.

Cause:
None Given

Preventative Measures:
Operations in the shaft were suspended in order to repair the wall plate; this has now been completed.

Event ID: 1054398 **HS** **24-Apr-04**

Inco Ltd. **- Creighton Mine**

Incident:
While in the process of doing an electrical/mechanical test on the skip ropes the #4 conveyance was balanced for regular travel. A request was made to balance for the 7080 Level. The hoist man un-clutched with the #3 skip conveyance at the surface and the #4 skip conveyance at the 7060 Level. When the hoist approached the 7080 Level the underwind tripped. In attempting to back out, the conveyance continued down contacting the bulkhead. No injuries.

Cause:
None Given

Preventative Measures:
A shaft inspection was completed from the cage side; the #4 skip rope was recapped; a senior hoist engineer examined the conveyance. The senior hoist inspector, hoist engineer and plant personnel are reviewing the unclutching practices.

Event ID: 1054390 **HS** **25-Apr-04**

Falconbridge - Thayer Lindsley Mine

Incident:
The maintenance crew was doing a tail end cut on the #2 hoist rope. They had just completed putting tension on the rope. They chaired the conveyance and removed the weight car on the 670 Level. While taking it off chairs the rope was kinked. No injuries or damage was reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054454 **HS** **28-Apr-04**

Inco Ltd. - Garson Mine

Incident:
While loading a bundle of pipe into the counterweight conveyance, the power panel of the rear wall of the conveyance was pushed outwards. The pipe was unloaded, the bottom section of the rear wall of the conveyance was removed, and a shaft inspection was conducted. One cleat was found to be missing from set #328, but it is unknown if this is related. No injuries.

Cause:
When the panel was pushed out it caused a bulge in the back of the conveyance, preventing it from moving freely in the shaft.

Preventative Measures:
The cleat was replaced. The conveyance was unloaded, the panel was removed and a shaft inspection was conducted.

Event ID: 1054624 **HS** **29-Apr-04**

Inco Ltd. - Copper Cliff North Mine

Incident:
The scheduled cage drop test that was due February 21, 2004, was missed and was performed immediately after it was flagged. No injuries, no damage.

Cause:
A bug in the scheduling module prevented this task from coming up when it needed to be done.

Preventative Measures:
A report has been created that will be run on a regular basis to monitor MST's communicated the problem throughout Inco.

Event ID: 1054594 **HS** **01-May-04**

Falconbridge - Thayer Lindsley Mine

Incident:
While skipping, a 2-metre drill rod protruding from the skip struck the deflector hood at the 60 level. The good went down the shaft and came to rest above the 365 level. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052434 **HS** **13-May-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
A cage was traveling from the 1400 Level to the 3400 Level when a small piece of timber entered the cage. The shaft timber entered the cage during normal operation. No injuries, no damage.

Cause:
The shaft inspection of the cage compartment revealed damage to approach planks on the 2600 Level and small pieces of timber were found on the dividers from the 2600 Level down.

Preventative Measures:
None Given

Event ID: 1049549 **HS** **02-Jun-04**

Inco Ltd. **- Stobie Mine**

Incident:
During a scheduled shaft inspection some of the shaft compartment lining (58" of brattice between the cage compartment and the #5 skip compartment) was found to be missing. The top cleat was missing, which probably allowed the brattice to fall into the skip compartment. The missing pieces of the brattice have not been found. No injuries, no damages.

Cause:
The cleat came loose allowing some of the brattice planks to fall into the skip compartment.

Preventative Measures:
The brattice was replaced and securely fastened.

Event ID: 1056392 **HS** **06-Jun-04**

Goldcorp Inc. - Red Lake Mine

Incident:
The sinking hoist motor failed when the generator accelerator reactor grounded to a piece of angle iron upon the hoist start up after the weekly shutdown. No injuries or damage was reported.

Cause:
Reactor cables were not properly lashed, plastic tie wraps which were used broke allowing cable to lie on a coil bracket where it eventually shorted out to ground. The reactor caused a voltage spike to travel around the loop and eventually shorted to ground at the #3 inter-pole of the #1 hoist motor. The accelerator SCR drive appears to be causing high shaft currents during start-up, requiring shaft grounding.

Preventative Measures:
Proper wooden blocks were used to hold the reactor cables in place change-out, ensure the same fix is applied to the service hoist. The reactor is properly grounded during change-out ensure service reactor is grounded as well. Ship armature and interpole/pole face connector set to the GE Service centre for re-work. Install ground protection for ground circuit (Avatron is looking into possibilities). Grounding brush installed on the #2 bearing pedestal, recommended installing one on service hoist MG set as well (same location, #2 pedestal from synch end is supposed to be the grounded pedestal.) To get the production hoist back into service quickly, the reactor from the service hoist was removed and installed in the production hoist. Special attention was paid to the installation of the dc reactor cables and they were well secured to the enclosure using wood blocking. Avtron is the supplying information and a recommendation on an appropriate ground fault monitoring and protection device that will shut down the source of the dc current before any ground fault can reach damaging levels.

Event ID: 1056825 **HS** **09-Jun-04**

Goldcorp Inc. - Red Lake Mine

Incident:
The hoist operator went to dump a bucket full of water on the #1 compartment side when the chairs would not close. The mechanic was called to inspect the problem and found that a cylinder connection pin had broken, making the chair dysfunctional. No injuries, no damage.

Cause:
Upon examination it was found that the cylinder rod eye had broken off.

Preventative Measures:
Replaced the cylinder and made several trial runs to ensure that everything was operating normally before work resumed.

Event ID: 1049390 **HS** **02-Nov-04**

Falconbridge - Kidd Creek - Met. Site

Incident:
As a worker was preparing to use the hoist he noticed that something was wrong. He lowered it to the floor below and at that time the remaining hoist rope un-spooled. No damage, no injuries.

Cause:
None Given

Preventative Measures:
None Given

IW-INRUSH OF WATER OR MATERIAL

Event ID: 1053050 **IW** **04-Feb-04**

Inco Ltd. **- Clarabelle Mill**

Incident:
A run of muck occurred at the transition from the fine ore bin to the #1 feeder conveyor causing approximately 8-10 tons of fine ore to spill. No injuries no damages.

Cause:
Water entering the fine ore bin caused the run of material.

Preventative Measures:
The area was roped off until the hazard could be identified and resolved.

Event ID: 1050161 **IW** **26-Feb-04**

Inco Ltd. **- Stobie Mine**

Incident:
Muck was spilled into the shaft from the dump. During the previous shift, some work on the skip dump scrolls had been completed. This job had necessitated filling the bin, which meant that the bin probe had been raised. On the following shift, hoisting resumed in manual mode (the sonar does not work in manual mode) and the bin became filled with muck. Due to the probe being raised, the bin overfilled and a small amount of muck spilled into the shaft. No injuries, no damages.

Cause:
The bin probe was not restored to its correct position in the bin after the scroll work was completed allowing the bin to overfill and spill much into the shaft.

Preventative Measures:
Hoisting was suspended and the shaft was inspected from the cage compartment first, then from the #4 skip compartment. A few loose brattice boards were nailed from the #4 skip compartment. A visual inspection of the #4 compartment revealed no further damage (the #5 compartment was fully inspected on the next shift.

Event ID: 1054592 **IW** **20-Mar-04**

Falconbridge - Craig Mine (Counted w/Onaping)

Incident:
Water entering, became saturated and flowed out onto the 35-2 Level. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052154 **IW** **31-Mar-04**

Falconbridge - Fraser Mine

Incident:
Water and some fill from a fill pour in the 607 zone accumulated at a drift drain hole and overfilled. The ditch ending up flowing down the 3600 ok dump. No injuries, no damage.

Cause:
Rocks were found in the drain hole restricting its ability to keep up with the flow of the water.

Preventative Measures:
The drain hole was cleaned, the passes are roped off and have been measured for content, they will be left for another 24 hours and re-evaluated on April 2, 2004. A spill monitor will be installed at the drain hole location to warn of overflow.

Event ID: 1054294 **IW** **20-Apr-04**

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Incident:
Approximately 50 tons of backfill ran out of the 2400 backfill raise inspection hatch. It is unknown what happened exactly but it seems that the spring run off caused some additional water to enter the backfill raise which caused the run of muck on the 2400 Level. No injuries or damages were reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054248 **IW** **20-Apr-04**

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Incident:
The Manitowoc 4100 was dragging the clay slope from the 225 dragline pad on the west side of stage 2N. The slough was approximately 20,000 BCM the dragline was in the process of moving out from the slough zone when the slough occurred. No injuries or damage reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054355 **IW** **25-Apr-04**

Teck-Corona - David Bell Mine

Incident:
An in rush of water from the fill raise pushed a man off the scooptram as he began to draw roadbed material from the raise. No damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052456 **IW** **08-Jun-04**

Inco Ltd. - Copper Cliff North Mine

Incident:
A worker was slushing from the 2400 slag hole to the borehole when slag and impounded water suddenly came into the drift. No injuries or damage.

Cause:
The slag hole had not been filled since June 1st and impounded water. This caused the muck to run once it was moved.

Preventative Measures:
None Given

Event ID: 1048122 **IW** **01-Sep-04**

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Incident:
A concrete wall that acted as a funnel to steer the muck into the grizzly pulled away from the ball on which it was bolted. This caused the muck from behind the control gage to spill, overflowing the grizzly. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1049347 **IW** **02-Sep-04**

Inco Ltd. **- Frood Mine**

Incident:
An unexpected and uncontrolled run of wet material discharged from a chute while it was being pulled into a train. The ore pass was known to have wet material in it, comprised of wet sand fill mixed with high-grade ore. There was a measurement taken roving 142 feet of open ore pass with no standing water on top of the material. While material in the chute was being pulled into the train, a run of muck occurred, with some of the material not being caught in the train car, and a spill onto the gangway occurred. No damages were reported.

Cause:
The material in the ore pass was known to be wet with water seeping out of the ore pass at the chute. The location of the chute controls placed the operator in a position where he could be struck by material from the chute if this type of unexpected and uncontrolled run of material occurred. There is a remote control capability to operate the gates of the chute, which was not utilized. There are written procedures in place to operate this chute.

Preventative Measures:
None Given

Event ID: 1054383 **IW** **04-Oct-04**

Placer Dome - Musselwhite Mine

Incident:
A fog and run of muck occurred in the 425L440WA stope. Due to backfill in the stope horizons above 400ml the stope in question was being drilled and blasted leaving a 5 meter sill pillar to hold up the muck. Approximately 7000 tons of waste fill ran into the breached sill and came to rest on the 425ml into the open stope below. There was one worker in the area and several on the level but there were no injuries reported. The level had all the appropriate barricades. Review of the structure in the area showed faulting near the location of the breach. Blast holes in the area were non-breakthrough but were drilled to design length. No injuries or damages were reported.

Cause:
The 800 ton failure of the sill pillar was potentially structurally defined and/or blast damaged and gravity driven.

Preventative Measures:
None Given

MM-MOLTEN MATERIALS

Event ID: 1048520 **MM** **(F)** **17-Jan-04**

Inco Ltd. **- Copper Cliff Nickel Refinery**

Incident:
As the control operator was tapping out the No. 1 TBRC into a transfer ladle hot metal splashed onto a wooden pallet located in the vicinity. The pallet caught fire and had to be extinguished using three portable fire extinguishers. The pallet was removed and hosed down with water to ensure that it would not re-ignite. No injuries.

Cause:
The material was stored in an area that was exposed to hot metal.

Preventative Measures:
None Given

Event ID: 1048654 **MM** **(F)** **20-Jan-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
A leak developed on the No. 14 mpv while in the process of emptying the molten metal to another shell, the location of the lack caused the grease in the journal box to catch on fire. A fire extinguisher was used to put out the fire. No injuries, no damage.

Cause:
Location of the molten metal leak was directly over the west riding ring journal box.

Preventative Measures:
None Given

Event ID: 1048674 **MM** **(F)** **20-Jan-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
Repairs on the duck ignited feed and sulphide buildup in the flue. No injuries. Damage to the expansion joints on the fan house and on the flue system.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048767 **MM** **(F)** **22-Jan-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
Workers noticed timbers situated to the east of the #17 MPV smoldering and extinguished the fire with a fire extinguisher. No injuries, no damage.

Cause:
None Given

Preventative Measures:
Remove combustible materials from the area.

Event ID: 1048690 **MM** **23-Jan-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
Approximately five minutes after completing the cast from the No. 2 anode furnace, a worker proceeded to the pour box, which holds molten metal during a cast, and applied water into the pour box to cool it off. There was a reaction because of this that caused steam and molten metal to exit the pour box. No damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048691 **MM** **23-Jan-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
A reaction occurred in the No. 16 MPV while adding a pot of spent anode copper plates to cool molten metal bath and prepare it for casting. This pot had been dried in No. 3 ladle heating station prior to adding the pot. No injuries, no damage.

Cause:
Reaction of molten metal with suspected moisture.

Preventative Measures:
Pending investigation, suspend all usage of coolant plates from this outside supplier.

Event ID: 1050313 **MM** **(F)** **03-Feb-04**

Inco Ltd. **- Copper Cliff Transportation & Traffic**

Incident:
A damaged switch to the slag dump caused the creation of an emergency dumping location. The location used was the normal dumping location for slag pot skulls that are recovered for reprocessing. The skull location was excavated to a larger size to accommodate the slag dumping while the switch to the regular dump was repaired. At the skull location are wooden hydro poles that carry a 250 dc power supply as well as 110/220 power. These poles are located in a direction opposite to the side of the track where the dumping is being done and within about 15' of the heat source (molten slag). The excessive heat from the slag being dumped ignited the top of the pole. The fire department was called in and they extinguished the fire. The power department shut off the power and cut off the top of the pole. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1053045 **MM** **(F)** **04-Feb-04**

Falconbridge - Falconbridge Smelter

Incident:
The #2 hoist on the #4 crane failed while pouring a ladle of matte into the #8 converter. Molten metal poured over the back of the converter burning three 1 ½ inch air supply hoses (steel braided rubber) and two 50 foot lengths of 1 1/2 inch rubber hose. An ABC fire extinguisher was used to put the fire out.

Cause:
None Given

Preventative Measures:
Changed the #4 crane out to the old regeneration circuit at the #2 powerhouse.

Event ID: 1049553 **MM** **15-Feb-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
As the casting operator began the cast of No. 2 anode furnace, the molten copper began reacting with the newly installed intermediate ladle. This ladle had been relined with refractory and was seeing its first cast. No injuries.

Cause:
The intermediate ladle had not been cured properly to remove moisture from within refractory.

Preventative Measures:
None Given

Event ID: 1049921 **MM** **23-Feb-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
While casting the #6 converter the controls failed to respond resulting in approximately 5 tons of matte spilling into the main aisle. No injuries, no damages.

Cause:
The pour contractor was stuck in thus enabling the converter from coming up to blow position.

Preventative Measures:
The electrician fixed the contactor. The contactor had been installed improperly. All the other converters have been checked for proper installation.

Event ID: 1050284 **MM** **29-Feb-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
The anode casting operator was preparing to pull the copper skull from the intermediate ladle by using a 15 ton overhead crane and a chain bridle which had been attached to the hairpins (used for removing skulls). As the operator began to slowly removed the skull, a link in the chain failed. No injuries.

Cause:
None Given

Preventative Measures:
The failed chain bridle was removed from service.

Event ID: 1053047 **MM** **(F)** **04-Mar-04**

Inco Ltd. **- Copper Cliff Nickel Refinery**

Incident:
In the process of transferring hot metal into the #1 TBRC a spark ignited a wooden pallet. One portable ABC fire extinguisher was used to put the fire out. No injuries, no damages.

Cause:
The material stored in the area was exposed to hot metal.

Preventative Measures:
None Given

Event ID: 1050929 **MM** **14-Mar-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
In the process of adding blister copper from the #15 MPV to the #16 MPV a reaction occurred which caused a small amount of molten metal to spill out the back of the vessel. No injuries.

Cause:
The reaction occurred when a molten oxide material came into contact with a molten sulphide bath. The sulphide bath was partially refined.

Preventative Measures:
Current standards identifying the degree of refining required before a molten oxide material can be blended into a sulphide bath is under review.

Event ID: 1051062 **MM** **15-Mar-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
An anode clamp was being used to reposition a misaligned anode on the storage rack. After the anode clamp was attached to the misaligned anode and No. 8 crane, the crane operator began to apply tension to the clamp and it failed. No injuries, no damage.

Cause:
The sling portion of the clamp was analyzed and the outer cover of the sling was found to have several small holes.

Preventative Measures:
The failed sling was removed from service and will be sent out to the manufacturer for analysis. The manufacturer will be asked to put on a demonstration to the crews on how to identify defective slings. A personal contact will be issued to crews reminding them to inspect all equipment prior to use.

Event ID: 1051202 **MM** **20-Mar-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
After dumping a ladle of plates into the #17 MPV, it was noted by the operator that the scrap ladle was very wet up both sides. The plates had created splashing and popping while being poured. No injuries, no damage.

Cause:
Operators report that it is the product of natural gas combustion during the scrap heat up that condensed on the cold spend anode creating the moisture in the scrap pot.

Preventative Measures:
An alternate method of conditioning the spent anodes to ensure they are dry and warm is being developed.

Event ID: 1051205 **MM** **22-Mar-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While pouring semi-blister copper into the No.15 MPV a reaction occurred which caused a small amount of molten metal to be ejected from the vessel onto the #6 crane cab. No injuries.

Cause:
The No. 15 MPV had been out of operating service and on hot standby for a week. During that period, any product in the vessel had melted down and became extremely oxidized. The semi-blister from the primary smelting unit (No. 14 MPV) was slowly poured with a ladle into the No. 15 MPV, reacting immediately on contact with the oxide bath in the vessel.

Preventative Measures:
All vessels will be drained of any residual molten material before accepting the first ladle of semi-blister copper.

Event ID: 1051165 **MM** **22-Mar-04**

Falconbridge **- Falconbridge Smelter**

Incident:
While blowing the #5 converter, a tuyere leaked molten metal out the back. Slagging in leak and emptying the converter for possible re-brick. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1051159 **MM** **22-Mar-04**

Falconbridge - Falconbridge Smelter

Incident:
While casting the #2 mg ladle a hole was burned in the bottom while on the tilter. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1051242 **MM** **(F)** **23-Mar-04**

Inco Ltd. - Matte Processing

Incident:
An operator was attempting to establish the flow of calcine through the airlift on the No. 2 fluid bed roaster. The operator opened an inspection port on the airlift without having the air supply isolated, allowing an estimated 7,000 lbs of hot calcine to spill into the work area. No injuries.

Cause:
Procedural violation.

Preventative Measures:
The incident and proper procedure for this task will be reviewed with all operators. An extensive investigation involving management and OHS representatives is underway.

Event ID: 1051379 **MM** **26-Mar-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
While cleaning the inlet on the #1 furnace, the operator observed a large stream of molten material trapped under the furnace build-up. A violent explosion resulted from the molten material flowing into the quench liquor. No injuries or damage.

Cause:
There was molten metal trapped behind the build-up which was released and dropped into the quench chamber, coming into contact with water.

Preventative Measures:
Increased frequency of the quench cleanings and soot blower firings.

Event ID: 1051597 **MM** **29-Mar-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
When cleaning the #2 quench inlet, a large piece of build up was pushed into the furnace, causing a blowback of gas and process water to come out of the inlet door. No injuries or damages reported.

Cause:
Large chunks of build-up being pushed into the hot furnace bath.

Preventative Measures:
There is an ongoing effort to reduce the amount of build-up that collects on the inlet. Operating procedure in place to safe guard against potential blowbacks.

Event ID: 1050426 **MM** **03-Apr-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
The furnace operator was in the process of skimming soda slag when the slag pot he was using cut out. A small amount of soda slag spilled onto the floor. No injuries, no damage.

Cause:
The slag pot had a weakened area where the molten soda slag impinges on the side of the slag pot.

Preventative Measures:
The damaged slag pot was removed from service. All other slag pots used in this process will be analyzed for defects and repaired where necessary. The procedure for skimming slag will be revised to include inspection of the slag pot prior to skimming the soda slag.

Event ID: 1054101 **MM** **14-Apr-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While operating the #2 car puller to spot an empty ladle under the slag skim chute, a component of the swivel assembly failed. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
An interim procedure has been implemented until causes are known and addressed. This reduces the exposure of operators to the car puller device when moving cars or pots.

Event ID: 1054325 **MM** **22-Apr-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
While operating the #1 skim hole, matte was skimmed and an explosion resulted when it came in contact with the launder. The equipment was in good order. The furnace feed rate had been limited for most of the shift due to low matte demand and level was high. No injuries.

Cause:
None Given

Preventative Measures:
The furnace matte level was tapped down. Access to the area is restricted by: closing gates when opening to skim the first pot; if the operator suspects matte at the skim hole; following any occasion where water is used to cool the chute. Improved coordination used to cool the chute. Improved coordination between the furnace and converter operations to manage furnace level continues to remain a focus.

Event ID: 1054534 **MM** **(F)** **30-Apr-04**

Inco Ltd. **- Copper Cliff Transportation & Traffic**

Incident:
The slag crew moved to the 4D dump due to a derailment on the 4C slag dump and wind conditions. The supervisor checked the last two entries for the 4D dump (dated April 16, and 23, 2004) and noticed that there was a note to fill the block then move towards pole #17, then work towards #1. Upon inspecting the dump for the slag crew the supervisor noticed that there was still lots of room to dump at the block and that there was no red flags on the track to state that the block was full and to move back to #17, so he guided the train into the block for the crew to continue filling in the block, which they did. After the train had left the site, the supervisor used the glow from the slag to get a better look at the block to see how much more slag is needed before the block would be full. As he was walking back to the truck, he noticed a glow from the area between the 4D and 4C blocks. The glow was from the tires of a stacker belt system parked right under the block on 4C. The fire department was contacted to extinguish the fire. No injuries.

Cause:
A pouring berm at the bottom of the slag dump had been removed by a contractor and notification was not given to the transportation department. Because of the time of day, this could not be seen from the top of the slag dump.

Preventative Measures:
None Given

Event ID: 1049276 **MM** **02-May-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
A reaction occurred with the #3 bulk converter as the crane operator added a copper skull. He held the pot over the opening into the converter to prevent any material from exiting. No injuries, no damage.

Cause:
It is suspected that there was moisture on the copper skull that reacted with the molten metal within the converter causing the reaction.

Preventative Measures:
All skulls and scrap material will be inspected prior to charging the converter with the material.

Event ID: 1053702 **MM** **04-May-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
An explosion occurred while opening the #1 skim hole when matte came into contact with the launder. No injuries occurred, however there was damage to the skimmer shack window.

Cause:
None Given

Preventative Measures:
The furnace was shut down and the matte level was tapped down. Repairs were made to the launder covers and the skimmers shack window was replaced.

Event ID: 1021188 **MM** **10-May-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
While chipping quench on the #2 furnace, a large chunk of material fell into the quench chamber resulting in an explosion. No materials exited the inlet. No injuries, no damage.

Cause:
It is possible that the chunk contained semi-molten metal and the explosion resulted when it came into contact with water. The extent of build-up in the furnace uptake is contributing to a greater amount of build-up in the quench inlet.

Preventative Measures:
The furnace was shutdown on May 13, 2004, and cleaning of the uptake build-up was performed. Potential exists for molten material to be present within the inlet to the quench chamber. Measures have been taken to protect the operator, including retrofit of the Kubota with a protective shield and canopy. Cleaning frequency will be adjusted according to existing conditions in order to reduce exposure.

Event ID: 1021186 **MM** **11-May-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
While chipping quench on the #2 furnace, a large chunk of material fell into the quench chamber resulting in an explosion. Water and solids exited the chamber and came in contact with the Kubota windshield. No injuries, no damage.

Cause:
It is possible that the chunk contained semi-molten metal and the explosion resulted when it came into contact with water.

Preventative Measures:
Potential exists for molten material to be present within the inlet to the quench chamber. Measures have been taken to protect the operator of the Kubota with a protective shield and canopy. Cleaning frequency is adjusted according to existing conditions in order to reduce exposure.

Event ID: 1052445 **MM** **22-May-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While cleaning the quench inlet on the #2 flash furnace a stream of hot metal started to flow down the cold face. At this point several explosions happened with hot metal being thrown out the inlet. No injuries, no damage.

Cause:
During the smelting process hot metal pools formed on the furnace side of the inlet. During the action of removing the buildup, the hot metal flows downward onto the cold face.

Preventative Measures:
None Given

Event ID: 1052446 **MM** **(F)** **22-May-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
At the end of the granulation, the craneman was leaving with the ladle to dump slag into the slag dump when it was noticed some molten material was coming out of the nozzle. He raised the back of the ladle to stop the flow as molten material splashed out the mouth of the ladle and ignited some hydraulic oil that was on the lancing platform as well as the lancing hose. The granulation operator used a fire extinguisher to put out the fire. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052444 **MM** **(F)** **22-May-04**

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Incident:
The slag pot crew were in the process of dumping the slag pots at the block on the 4D dump when black smoke was seen rising from the area between the 4D and 4C blocks. The slag from the last 2 bowls of the train flowed over and along the berm at the bottom of the dumps. It rolled toward the conveyor belt stacker, setting the tires on fire. The stacker (owned by Fisher Wavy) was not in use at the time and no workers were seen in the area of the equipment. No injuries.

Cause:
Slag overflowed the berm that is used to direct slag flow away from the stacking conveyor.

Preventative Measures:
None Given

Event ID: 1018132 **MM** **25-May-04**

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Incident:
Granulated slag build up on the spray nozzles, which caused a small explosion. No injuries, no damage.

Cause:
None Given

Preventative Measures:
Cleaned the nozzle buildup, and plan on more frequent cleaning.

Event ID: 1052452 **MM** **26-May-04**

Inco Ltd. **-** **Copper Cliff South Mine**

Incident:
A worker was cleaning spilled slag from under the 840 chute using a Kubota loader when he heard a loud noise and as he was pulling away he saw oil splashing and the chute lip dropping behind him, filling the drift with slag. Old Koruna chute. No injuries, no damage.

Cause:
Inadequate reparative maintenance was the cause.

Preventative Measures:
None Given

Event ID: 1018141 **MM** **31-May-04**

Falconbridge **-** **Falconbridge Smelter**

Incident:
While pouring a ladle of matte from the #7 converter, the operator was unable to return the vessel to a safe position and approximately 2-3 ladles of matte was spilled onto the aisle floor. There is an emergency button that returns the vessel to a safe position and all operators were made aware of it. No injuries, no damage.

Cause:
None Given

Preventative Measures:
Instrumentation and electrical personnel are repairing the problem with the plc logo. There is an emergency button that returns the vessel to a safe position. The operators were made aware of this.

Event ID: 1052458 **MM** **04-Jun-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
An explosion occurred during the quench inlet cleaning. No injuries, no damage.

Cause:
A significant amount of build up was present on the lower half of the inlet at the cold face. This allowed for molten material to collect. During the cleaning activity, a thin stream of molten material was observed to flow into the quench chamber. When it came in contact with the water spray, a small explosion resulted. Six quench sprays were plugged at the time of this incident. In addition, the soot blower was not fired just prior to shutting down the furnace.

Preventative Measures:
None Given

Event ID: 1052457 **MM** **(F)** **04-Jun-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
A small fire was observed in the centre of the anode-casting wheel while the cast was in progress. One fire extinguisher was used to extinguish the fire. No injuries, no damage.

Cause:
Excess grease from the automatic greaser for the anode-casting wheel had accumulated on the floor in the centre of the wheel and was ignited by a splash of molten material that was being poured from the pour ladle to the mould as per regular operation.

Preventative Measures:
None Given

Event ID: 1018154 **MM** **(F)** **09-Jun-04**

Falconbridge - Falconbridge Smelter

Incident:
Slag spilled over onto rubber-converted hoses igniting the hose. A fire extinguisher was used to put out the flames. No injuries or damage reported.

Cause:
None Given

Preventative Measures:
The rubber hose was replaced with a steel braided hose.

Event ID: 1047990 **MM** **(F)** **01-Jul-04**

Inco Ltd. - Copper Cliff Smelter

Incident:
The smelter was removing slag from its converter operation via slag pots filled at the east end of the main aisle due to the furnace being shutdown for maintenance repairs. Under normal operation, the converter slag is processed back to tone of the two flash furnaces. Slag, which was poured out of a converter into a pot was brought down to the east end of the aisle by means of the main aisle crane. Once there, the molten material was poured into rail slag pots and brought to the slag dump by train. While the material was being poured into the slag pot, a large chunk fell from the pot into the rail slap pot causing a molten metal splash. This caused combustible material near the area to ignite. No damage.

Cause:
This is an infrequent task without much adequate preparation.

Preventative Measures:
None Given

Event ID: 1053811 **MM** **(F)** **04-Jul-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While bringing in an empty ladle on the transfer car, the operator noticed that the blanket that covers the hood was burning. No injuries.

Cause:
The canvas blanket may have come in contact with the moving hot ladle.

Preventative Measures:
All blankets have been removed from service. Blankets are to be made using an alternative non-flammable material.

Event ID: 1054027 **MM** **04-Aug-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
Three minor explosions occurred while an operator was cleaning the inlet on the #1 furnace. No injuries or damages were reported.

Cause:
Molten material trapped behind build-up was released and dropped into the quench chamber coming into contact with the water.

Preventative Measures:
Measures have been taken to protect shield and canopy. Cleaning frequency is adjusted according to existing conditions in order to reduce exposure.

Event ID: 1049369 **MM** **(F)** **02-Sep-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
A reaction occurred in No. 17 MPV as the operator rolled the vessel after taking the second ladle of semi-blister copper for the MK reactor. There was no reaction after the first ladle and none immediately after the second ladle. It was only after the operator rotated the vessel that the reaction occurred. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048090 **MM** **01-Nov-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While smelting charge number 100 of No. 16 MPV, a reaction occurred which caused molten material in the vessel to 'foam' out through the mouth resulting in a small spill behind the shell. No injuries, no damage.

Cause:
The vessel was on its second blow of the cycle. There was substantial buildup of oxides in both end wall areas of the vessel. Foams have occurred when there is a large variance in contact temperatures of the materials in the shell or from reactions between oxides and sulfides.

Preventative Measures:
We are in action to clean up the buildup in the vessel by doing more frequent washouts.

Event ID: 1049461 **MM** **(F)** **02-Nov-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
During tapping operations, an operator noticed a fire in a scrap box. No injuries, no damage.

Cause:
The scrap box was positioned to closely to the furnace tap hole.

Preventative Measures:
None Given

Event ID: 1050829 **MM** **03-Nov-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
When cleaning the #2 quench inlet, a mixture of gas and quench acid liquor came out of the inlet in one huge puff. No injuries, no damages.

Cause:
Large chunks of build-up were being pushed into the hot furnace bath.

Preventative Measures:
Ongoing efforts are being made in an attempt to reduce the amount of build-up that collects on the inlet. Operating procedures are in place to safe guard against potential blowbacks.

Event ID: 1053938 **MM** **04-Nov-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While opening the #1 skim hole, matte was skimmed and an explosion resulted when it came in contact with moisture in the launder. The explosion caused the skim launder covers to open. On skimming the second pot of the trip the slag was viscous and the operator had applied water to the chute after the first skim. Matte was skimmed and an explosion resulted when it came in contact with moisture in the launder. No injuries or damage to equipment resulted.

Cause:
None Given

Preventative Measures:
The furnace was shut down and the matte level was tapped down. A new standard has been established and communicated to ensure that access to the area is restricted by closing gates when opening to skim the first pot and following an occasion where water is used to cool the chute. Improved coordination between the furnace and converter operations is also a focus.

Event ID: 1048110 **MM** **01-Dec-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
A reaction occurred in the No. 17 MPV while adding spent anode copper plates to cool the molten metal bath to prepare it for casting. Four pots of copper plates were added to the MPV without reaction. The reaction occurred after adding the fifth pot of plates. No injuries, no damages.

Cause:
None Given

Preventative Measures:
Directives were issued to all affected area operating personnel to preheat/dry the spent anode scrap before adding to a vessel with molten metal.

Event ID: 1049478 **MM** **02-Dec-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
While attempting to turn down the #11 converter with the pendent control the pendent function failed causing a spill of molten material in the main aisle. The converter was rolled back to the safe position after the emergency stop button in the skimmer's shack was pressed. No injuries, no damages.

Cause:
The cable for the pendent control was damaged, likely from splashes of molten metal while the converter is blowing.

Preventative Measures:
The cable and pendent were replaced. Other converters are being checked to ensure there was no damage to the cable and pendent. Skimmers will be directed to check the cable and pendent at the beginning of each shift.

MS-MISCELLANEOUS

Event ID: 1048373 **MS** **(F)** **14-Jan-04**

Inco Ltd. **- Coleman Mine**

Incident:
A worker was in the process of parking his jeep at the end of the shift when he noticed a small flame coming from the side of the drift. He went over and found a small piece of cardboard on fire. The employee extinguished it with his foot. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048545 **MS** **20-Jan-04**

Placer Dome - Dome Mine #8

Incident:
A caller reported that smoke was coming from the mine shaft. The source of smoke is unknown at this time. Smoke entered the mine from surface and stench was released. The all clear was sounded at 11:26. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048595 **MS** **(F)** **21-Jan-04**

Falconbridge - Falconbridge Smelter

Incident:
A fire occurred on the 1st floor of the smelter after supplies deliver by Reliable Maintenance were placed too close to a heater and ignited. Three extinguishers were used to put out the fire. No injuries, supplies were damaged.

Cause:
None Given

Preventative Measures:
General awareness about moving materials in a timely fashion.

Event ID: 1048789 **MS** **(F)** **26-Jan-04**

Falconbridge - Falconbridge Smelter

Incident:
Bags of edible oil catalyst (uni-lever) stored in heated thaw shed (100 deg F) ignited resulting in open flame and smoke. Detection device alarmed and municipal fire department was summoned and extinguished the small fire. Material was removed from the building with the loader. No injuries.

Cause:
None Given

Preventative Measures:
Sir to be conducted. Material was removed to outside. The use of this particular catalyst will be reviewed and possibly discontinued.

Event ID: 1049640 **MS** **17-Feb-04**

Inco Ltd. - Clarabelle Mill

Incident:
At approximately 3:55 a.m., a piece of rock became jammed between the tipple rotary car dumper and the side entry floor. The tipple was in the process of returning to the seated position following a dump of two cars. The piece of rock was forced upwards, jamming under the anchor plate holding a handrail/barricade guard screen. No injuries.

Cause:
None Given

Preventative Measures:
The tipple will not be operated until damages are assessed and repaired.

Event ID: 1049725 **MS** **21-Feb-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
A secondary blast caused high sulfide to be present in the drift. Production was stopped for 1 hour to ensure that the S02 gas dissipates. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050195 **MS** **(F)** **27-Feb-04**

- Dufferin Aggregates

Incident:
There was a portable salamander heater in the tunnel under the main surge pile. A piece of the small conveyor belt caught fire. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1051142 **MS** **(F)** **21-Mar-04**

Placer Dome - Dome Mine #3

Incident:
A fire occurred on a tarp used to cover a D14 drill. The fire was extinguished with a hand-held fire extinguisher. No injuries.

Cause:
The wind blew the tarp off the drill and over the exhaust pipe, burning a 2 x 2 foot hole in it.

Preventative Measures:
None Given

Event ID: 1054156 **MS** **19-Apr-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
A secondary sulfide blast incident occurred yesterday. No injuries or damage reported.

Cause:
Dust caused a fire at the 6600 level.

Preventative Measures:
None Given

Event ID: 1054467 **MS** **(F)** **27-Apr-04**

Kinross Gold - Hoyle Pond Mine

Incident:
An employee was welding and grinding on the frame of a 6-yard scooptram when a small fire occurred on some grease near the battery compartment. The operator extinguished the fire using a hand held extinguisher. No injuries, no damages.

Cause:
None Given

Preventative Measures:
The maintenance department is addressing the issue of ensuring the engine compartment is free of any grease before welding or grinding commences.

Event ID: 1054508 **MS** **(F)** **29-Apr-04**

Inco Ltd. **- Garson Mine**
Incident:
A worker sustained spray paint burns to his upper body and suffered a bruised, discolored and sore left hand after attempting to move an aerosol can that had become heated when placed near a set of hydraulic hoses on a Kubota. He heard the can venting just as he picked it up and it exploded. He was sent to a local hospital by taxi for further medical treatment. No damages were reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052436 **MS** **12-May-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
When drilling holes for a sump wall inside an old diamond drill station with a jackleg, the raise bore crew found 2 nonels and 2 electric caps after they searched the muddy area. No injuries, no damage.

Cause:
The station had been used as a cap magazine in the past. The magazine had been cleaned up and dismantled in the last few months.

Preventative Measures:
None Given

Event ID: 1502448 **MS** **24-May-04**

Inco Ltd. **- Copper Cliff Copper Refinery**

Incident:
The crane operator was in the process of moving sheet racks. As the operator raised the load past the control limit, the crane operator heard a noise. The operator then lowered the sheet rack back to the storage rack and proceeded to the center aisle to determine the cause of the noise. No injuries.

Cause:
The operator had to go past the control limit for the crane hoist "up" function to make a lift. This left the power limit as the only protection to stop the crane in the hoist up function. The power limit failed to operate at the proper position and the stiff leg chain struck as electrical junction box causing damage. The power limit was inspected and found to have failed to operate at the proper position due to wear on the mechanism in the actuating arm. The failure was not consistent in that it did not happen every time the power limit was operated.

Preventative Measures:
The crane was tagged out and the incident was reported to the supervisor.

Event ID: 1052461 **MS** **(F)** **06-Jun-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
During a furnace rebuild, sheets of plywood were placed on top of the build up inside the furnace. The plywood overheated causing a fire. No injuries.

Cause:
Over time the plywood started to over heat and smolder.

Preventative Measures:
None Given

Event ID: 1052288 **MS** **08-Jun-04**

Inco Ltd. **- Copper Cliff Smelter**

Incident:
An unexpected explosion occurred at the Strong Acid Building while contract workers were removing an old acid line. One of the workers was standing outside the building by a man-door when there was a minor explosion inside. When he entered to check on his co-worker, the pipe they were removing sprayed acid mist towards him. He was exposed for approximately 10 seconds and was treated at the occupational health centre for slight burning sensation to the lower lip and left cheek area. His co-worker was using a torch to cut off a bracket on the acid line when this occurred. There were no injuries to this worker.

Cause:
The presence of combustible gas in the area combined with the use of a torch to remove a bracket from the acid line likely cause the explosion.

Preventative Measures:
None Given

Event ID: 1050577 **MS** **(F)** **03-Jul-04**

Inco Ltd. **- McCreedy West Mine**

Incident:
At approximately 2:00 a.m., a fire started on the rubber belt in the cone crusher. This process is used during the winter months with the heater on a timer set to start at 1:00 a.m. in order to heat oils for start-up of the crusher. The fire department was called to put out the fire. No injuries, or damages reported.

Cause:
A tarp used to keep the heat in the crusher could have fallen against the heating element.

Preventative Measures:
The crusher operations will start earlier in the morning to start up the heating process for the crusher, the timed heater is being eliminated. A new building is proposed that will be constructed over the crushing operation, which will eliminate the future use of heaters during the winter months. Copies of this incident are to be posted, and reviewed with all employees and Joint Health and Safety committees.

Event ID: 1050643 **MS** **(F)** **03-Oct-04**

Falconbridge **- Kidd Creek - #2 Mine (Upper)**

Incident:
A fire occurred in the dumpster for the 4600 shop. There were cigarette butts observed in the dumpster low level of waste in dumpster limited the extent of the fire. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050664 **MS** **(F)** **03-Oct-04**

Inco Ltd. **- Creighton Mine**

Incident:
While welding on a scooptram bucket, a spark flew behind the tool cabinet. Between the tool cabinet and the wall of the service bay there were rubber and nylon bungee straps being improperly stored, which ignited. The fire was noticed by a coworker and extinguished with a water hose. No injuries, no damage.

Cause:
Improper storage of material and poor housekeeping practices.

Preventative Measures:
None Given

Event ID: 1048129 **MS** **01-Dec-04**

Inco Ltd. - Copper Cliff North Mine

Incident:
The smell of sulpher from the 2020 ore pass was noticed and elevated readings of 10 ppm S02 gas were taken at the 2020 ore pass on the 3400 Level. Changes were made to ventilation to try and contain the S02 in the 2020 ore pass and exhaust it to the return air raise. Two workers reported eye irritation and had their eyes washed. At 11:00 a.m. two more production miners reported eye irritation and had their eyes flushed. A fifth employee reported a skin rash at the end of the dayshift. No damages.

Cause:
There was approximately 60,000 tons of high grade and partly oxidized ore from remnant mining and a crown blast in 2020 ore pass. The pass was not pulled due to repairs at the 2020 ore pass grizzly on the 3400 Level for two days. Once the ore was dumped into the pass, elevated levels of S02 were noted on the 3400 Level at the 2020 ore pass. The 2020 ore pass is up casting and whenever the ore was dumped into the pass elevated levels of S02 were noticed at the dump points.

Preventative Measures:
The ventilation technician and the OHSE are continuing to investigate and make changes to the ventilation to have all the air from the 2020 ore pass exhaust to the return air raise. Dumping into the 2020 ore pass has been stopped and the ore continues to be pulled down. The 2000, 2200 and 3400 Levels North have been gaur railed off. Vent curtains have been installed on the 2200 Level. Ore pass doors on the 2600 Level and the 3400 Level remain closed. The ventilation to contain all the S02 gas in the 2020 ore pass, the exhaust raise and dilute the concentration of S02. Workers have been made aware of the problem and protective measures are being taken. The 2020 ore pass will be pulled until the S02 gas problem is eliminated.

MV-MOTOR VEHICLES

Event ID: 1053046 **MV** **04-Jan-04**

Inco Ltd. - McCreedy West Mine

Incident:
A worker was driving the dux scissor lift down the ramp when he noticed a scooptram coming up the ramp. He applied the service brake and it did not work. He tried to engage the emergency brake and it did not work. The operator then tried to shift the scissor truck into reverse and the truck stalled. The scissor truck then moved down the ramp approximately forty feet striking the scoop tram. No injuries.

Cause:
None Given

Preventative Measures:
The shift boss is conducting a complete investigation. The dux scissor lift has been taken out of service and the complete braking system will be checked to ensure all three brakes are functioning properly. The pre-op check indicates that the brakes were working properly at the time of the inspection. The incident will be reviewed with all crews and a full mechanical report will be developed.

Event ID: 1048426 **MV** **(F)** **14-Jan-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
There was a fire in the turbo area of a scooptram. The fire was put out by the worker. No injuries or damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048488 **MV** **17-Jan-04**

Falconbridge - Falconbridge Smelter

Incident:
Two wheels on an empty matte car came off the rails while being pulled into position with the car puller. The cable broke under the strain from an increased load. No injuries or damages were reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048594 **MV** **(F)** **21-Jan-04**

Placer Dome - Dome Mine #3

Incident:
Fire erupted form the right side of the loader and into a cab. The worker quickly evacuated and sustained burns to his hair. No damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048635 **MV** **(F)** **22-Jan-04**

Inco Ltd. **- Garson Mine**

Incident:
A fire was observed coming from a scooptram in the exhaust area of the engine compartment. The scoop was stopped and the flame extinguished with a #20 fire extinguisher. No injuries or damages were reported.

Cause:
A pail of oil was left in the engine compartment beside the air filter canister. The vent opened and allowed oil to drip onto the exhaust. The oil subsequently caught on fire.

Preventative Measures:
The unit was removed from the ramp, washed and inspected. This incident will be communicated to workers and contractors at with emphasis on safe handling/storage/transportation of flammable liquids.

Event ID: 1048771 **MV** **(F)** **24-Jan-04**

Inco Ltd. **- Coleman Mine**

Incident:
A truck operator noticed a flame on the plastic arm of the collector while parked and waiting for another truck. The fire was extinguished using a hand held fire extinguisher. No injuries.

Cause:
Overheating of the electrical components caused by losing the front brush.

Preventative Measures:
None Given

Event ID: 1049089 **MV** **(F)** **29-Jan-04**

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Incident:
A worker was mucking on remote when he smelled something coming out of the stope. He checked the remote to ensure that the brakes were released, backed up the scooptram and saw a fire coming from the driveline of the emergency brakes. He used an extinguisher to put out the fire. No injuries, no damages.

Cause:
If the park brake handle was not pulled all the way back the brake would be partially applied, causing it to overheat.

Preventative Measures:
The park brake handle is to be removed. Prints are being sent from Sweden. A new scoop coming will not have this handle; it will be replaced by an electric switch.

Event ID: 1050341 **MV** **03-Feb-04**

Inco Ltd. **- Copper Cliff Nickel Refinery**

Incident:
A bundle of copper cathodes (approximately 6700 lbs) was being lifted with a forklift when the right side lifting chain broke at a link. No injuries.

Cause:
The chain had fatigued over time due to normal use. There is a regular preventative maintenance schedule for the forklift where these lifting chains are checked.

Preventative Measures:
The chain was replaced as well as the left side chain.

Event ID: 1049834 **MV** **14-Feb-04**

Placer Dome - Musselwhite Mine

Incident:
A 10-yard scooptram being operated remotely was damaged by rock falling off a wall while it was cleaning up the last amount of blasted rock. The damage occurred to the engine covers lighting, wiring, etc. No injuries.

Cause:
The stope walls were unsupported.

Preventative Measures:
Stop mucking and backfill to support walls.

Event ID: 1049791 **MV** **(F)** **19-Feb-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
A cementation operator was transporting shotcrete to the 7700 Level with a transmixer. He was made aware by another worker that a flame was visible at his rear axle. After parking the transmixer the fire self-extinguished. Water was applied to cool the axle housing. No extinguisher or fire suppression was used. Central control was notified. No stench or evacuation was necessary. No injuries.

Cause:
The right rear outer axle bearing seized and overheated, causing gear lub to leak from the seal and ignite.

Preventative Measures:
None Given

Event ID: 1049827 **MV** **(F)** **19-Feb-04**

Placer Dome - Musselwhite Mine

Incident:
The solenoid plugs melted on an underground Toro Tamrock 40D haulage truck. The day shift reported that the brakes kept coming on. Maintenance crews replaced the breaker F6, and night shift reported that this did not fix the problem. Nightshift maintenance was called out and upon arrival noticed the smell of smoke and visually confirmed a small fire on the vehicle. The mechanic and haulage truck operator extinguished the fire using a handheld fire extinguisher. No injuries.

Cause:
The solenoid on the transmission gear selector (which was made of plastic) shorted out and ignited from the heat.

Preventative Measures:
Verified all other similar trucks to ensure transmission solenoid breaker is not kicking out.

Event ID: 1049075 **MV** **(F)** **02-Mar-04**

Inco Ltd. - Stobie Mine (Surface)

Incident:
The preliminary report indicates that the machine was being moved up the ramp when a small fire was seen in the engine compartment. The fire was extinguished with a fire extinguisher. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050347 **MV** **03-Mar-04**

Inco Ltd. **- Stobie Mine**

Incident:
The scoop was operating on remote control from the moc. It appears that the scoop ran up on a chunk while the bucket was raised, causing the scoop to roll onto its left side. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050345 **MV** **(F)** **03-Mar-04**

Inco Ltd. **- Garson Mine**

Incident:
The blasting crew was utilizing a Jeep to clear for a vrm blast when smoke and fire were seen on the exhaust. The fire was extinguished with a hand held extinguisher. No injuries.

Cause:
A broken O rink on the brake pump had allowed oil to drip onto the exhaust.

Preventative Measures:
None Given

Event ID: 1050934 **MV** **(F)** **13-Mar-04**

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Incident:
While operating a Kubota mobile rock breaker on the 1110 Level crusher station the operator shut down the unit and dismounted to remove scrap material from the work area. He then noticed the wiring harness had caught fire, which he immediately extinguished with a portable fire extinguisher. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1051175 **MV** **(F)** **23-Mar-04**

Placer Dome - Musselwhite Mine

Incident:
A worker called to report an underground mine fire at the Musselwhite mine. The mine rescue teams were being mobilized. The district mine rescue officer was contacted and confirmed that a Toyota Jeep was on fire. All workers were accounted for. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1051728 **MV** **(F)** **30-Mar-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
While operating a Kubota backhoe, a worker noticed smoke and a flash coming from the mid ship through a crack in the floorboard. After shutting the machine down and turning the master switch off, the worker observed a small flame amongst wires. The worker immediately extinguished the flames. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054392 **MV** **31-Mar-04**

Placer Dome **- Dome Mine #3**

Incident:
A loader operator had fuelled up and when backing up he backed into a pick up truck. There were minor injuries and substantial vehicle damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1053944 **MV** **13-Apr-04**

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Incident:
A worker driving a pick-up truck was following an 966-F loader on an east bound road in front to the C-Slag building when the loader operator noticed a pile of slag near the load out building and decided to stop and reverse direction towards the building to clean it up. The pick-up truck driver was following approximately 13 feet behind the loader and when was hit when the loader operator reversed. The truck operator exited his vehicle immediately but the vehicle sustained substantial damages. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054095 **MV** **(F)** **16-Apr-04**

Falconbridge - Fraser Mine

Incident:
While pulling muck from the #43 chute with the electric trolley tram, material (rockbolt) contacted the trolley line and arched. Arching from contact with live the trolley line caused the trolley line skirting to catch on fire. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054110 **MV** **(F)** **16-Apr-04**

Inco Ltd. **- Coleman Mine**

Incident:
A boomtruck operator started the truck and was getting ready to do a brake test when smoke was seen coming from the engine compartment. The engine and master switch were turned off. Another boomtruck operator came over to the truck with a 20 lb fire extinguisher and extinguished the fire. No injuries.

Cause:
The support for the main wiring harness broke, allowing the wires to hang on the small alternator wire. Vibration and movement broke the end of the terminal, resulting in the wire being welded to the alternator frame. It went to ground and burnt the wiring from the alternator to the starter.

Preventative Measures:
None Given

Event ID: 1054146 **MV** **(F)** **17-Apr-04**

Falconbridge **- Kidd Creek - #2 Mine (Upper)**

Incident:
A caller reported a fire on a piece of equipment when an exhaust clamp failed. The safety wrap was ignited but the flames were put out within minutes. There were no injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054297 **MV** **(F)** **20-Apr-04**

Inco Ltd. **- Power**

Incident:
A truck operator parked his vehicle at 9:15 a.m. and returned 30 minutes later to discover the interior of the vehicle on fire. He stood back a safe distance, contacted the Sudbury office and waited for the fire to self-extinguish. The vehicle was towed into Sudbury and is now located at Laurentian Motors. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054319 **MV** **(F)** **22-Apr-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
While backing up, the operator noticed smoke coming out of the mid-ship area. He immediately stopped the truck, retrieved the fire extinguisher and put out the smoldering electrical wires. No injuries, no damages.

Cause:
Damaged wiring harness exposed wires.

Preventative Measures:
None Given

Event ID: 1054319 **MV** **(F)** **22-Apr-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
While backing up, the operator noticed smoke coming out of the mid-ship area. He immediately stopped the truck, retrieved the fire extinguisher and put out the smoldering electrical wires. No injuries, no damages.

Cause:
Damaged wiring harness exposed wires.

Preventative Measures:
None Given

Event ID: 1054389 **MV** **25-Apr-04**

Inco Ltd. **- Copper Cliff Transportation & Traffic**

Incident:
Canadian Pacific Railway set off 49 Coleman ore car loads at 81.5 (sprecher), at 4:00 am. The first six cars next to the locomotive were secured with handbrakes. C.P. departed 81.5 for Sudbury at approximately 4:30 am. At 8:20 am, Inco unit 2008 proceeded to 81.5 to pick up the 49 loads for dumping at the tipple. The crew consisting of three transportation operators (1-conductor, 1-locomotive engineer, and 1-locomotive engineer trainee), hooked up to the 49 loads. The conductor then released six hand from the first six cars. The conductor then walked to the tail end of the train visually inspecting each car. He then went back to the unit after finding no abnormalities. The trainee then after pumping up the required air pressure called for clearance from 81.5 to the Clarabelle yard clearance was granted. The crew traveled approximately 500 yards at a speed of 6-7mph. The trainee was about to issue a standard running brake test when the emergency braking system came on the train line. The crew secured the unit then walked back approximately 21 cars to investigate, where they found 6 ore cars had been derailed. The crew notified transportation supervision thereafter. No injuries.

Cause:
Poor track conditions.

Preventative Measures:
A request was sent to CP Rail to repair the rail and inspect ore car wheels.

Event ID: 1054468 **MV** **(F)** **28-Apr-04**

Falconbridge - Craig Mine (Counted w/Onaping)

Incident:
A small fire occurred on an MC131 man carrier this afternoon on the 4025 Level. The fire was extinguished right away. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054452 **MV** **(F)** **28-Apr-04**

Sifto Canada Inc. - Goderich Mine

Incident:
There was a vehicle fire underground. Workers were evacuated and a Mine Rescue Team was dispatched to go underground. No injuries or damage was reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1047843 **MV** **(F)** **01-May-04**

Kinross Gold - Hoyle Pond Mine

Incident:
While mucking to backfill a worker felt heat on his hand at the bucket control lever. The operator then noticed a small fire at the battery wires. He activated the fire suppression system however the system did not work. He then shut off the master switch and put out the fire using 2 hand-held fire extinguishers. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1047814 **MV** **(F)** **01-May-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
An underground fire occurred when a piece of equipment caught fire. Mine rescue teams were dispatched and all workers were accounted for. No injuries, damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1018120 **MV** **09-May-04**

Falconbridge - Fraser Mine

Incident:
A minecat had been left parked in the 3700 waste pass entrance by the previous shift, the parking area was usually occupied by LHD820 scooptram but because it was sent to the 3900 level shop for services the parking spot was vacant. The oncoming shift picked up the scooptram from the 3900 level and proceeded to muck in various areas. This new shift did not have a crew in the stope who owned the minecat therefore it remained parked in the parking area. At the end of the shift the scooptram operator proceeded to park his scoop where he usually leaves it at the end of the shift. He rounded the corner and collided with the parked minecat. No injuries.

Cause:
None Given

Preventative Measures:
Mine practices for parking mobile equipment will be reviewed with workers.

Event ID: 1052435 **MV** **(F)** **14-May-04**

Inco Ltd. - Copper Cliff North Mine

Incident:
The alternator seized up causing a belt to catch on fire. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052433 **MV** **(F)** **14-May-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
The main hydraulic hose going to the pump failed by the sleeve allowing oil to spray over hot exhaust. No injuries, no damage.

Cause:
The fire was caused due to the failure of the hydraulic hose.

Preventative Measures:
None Given

Event ID: 1052443 **MV** **(F)** **20-May-04**

Inco Ltd. **- Copper Cliff North Mine**

Incident:
At approximately 12:10 am, a bolter operator noticed an arching cable about 40 feet from where he was bolting. He immediately shut down the main switch on the #31 load centre but the insulation surrounding the cable was on fire. Using a fire extinguisher on the bolter, he extinguished the fire. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052281 **MV** **(F)** **25-May-04**

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Incident:
A Wagner UT 45 fuel truck operator was driving down ramp near the 6400 Level when he was stopped and informed that his unit was red hot near the driveline disc brake. The other worker noticed a small grease fire near the disc brake and extinguished it using the unit's hand held extinguisher. There were no injuries or damages.

Cause:
None Given

Preventative Measures:
The unit underwent a mechanical inspection, was cleaned and brake tests were performed without failure.

Event ID: 1052322 **MV** **(F)** **28-May-04**

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Incident:
A small grease fire occurred on a S-2 shovel. The shovel operator and three other truck drivers used hand-held extinguishers to put out the fire. There was no damage and no injuries.

Cause:
A phase wire burn off which feeds one of the collector rings caused the fire.

Preventative Measures:
The area will be cleaned and the wire replaced. The shovel is being repaired and expected to be operational within 24 hours.

Event ID: 1055687 **MV** **29-May-04**

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Incident:
Haul trucks were dumping material at the #5 dam to raise the elevation when one truck was backed over a 3 metre lift, causing it to roll onto its roof. The driver was shaken up but not injured. He was able to exit the cab and move to a safe area on his own. No damage.

Cause:
The haul truck operator was not following normal dumping practices of dumping short of the edge so that the dozer operator can push it past the edge. The dozer operator was on his break and did not notice the truck being backed into the area, failing to stop at the dozer blade for dumping. The truck driver did not confirm "spot" with the dozer operator and attempted to dump a load while the truck was unstable and tilted at the berm. The dozer operator should have moved away from the dump area if he was not ready to receive trucks.

Preventative Measures:
Dumping procedures will be reviewed with the crews.

Event ID: 1056877 **MV** **(F)** **30-May-04**

Placer Dome - Musselwhite Mine

Incident:
A backhoe operator was traveling on a roadway over surface stones when the backhoe's track turned on stones and causing sparks which ignited brush along the roadside. There was no injuries, no damage.

Cause:
Brush located alongside roadway was dry and easily ignited by sparks.

Preventative Measures:
All brush near travelway of track equipment will be cleared.

Event ID: 1052454 **MV** **31-May-04**

Inco Ltd. - Clarabelle Mill

Incident:
A truck operator had finished dumping ore at the tipple when he lowered the dump box and cleared the first two trestles. He then made contact with the water pipe at the trestle adjacent to the 225 thickener, causing structural damage to the trestle that required immediate repairs. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1058753 **MV** **31-May-04**

Dufferin Aggregates

Incident:
One set of dual wheels broke away from the truck W#615. No injuries or damage reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1021197 **MV** **01-Jun-04**

Inco Ltd. **-** **Copper Cliff Smelter**

Incident:
While operating a forklift truck, the left rear wheel came off. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1018143 **MV** **(F)** **01-Jun-04**

Falconbridge **-** **Thayer Lindsley Mine**

Incident:
An Anfo loader operator was returning caps to their magazine when he noticed flames coming from the battery. The master switch was turned off and a fire extinguisher was used to put out the fire. No injuries.

Cause:
The outer coating on the negative lead had worn through and shorted out on the side of the battery box. The red rubber insulator inside the battery box had ignited. One of the anchors (threaded rod) for the battery tie down was broken, allowing movement of the batteries and cable.

Preventative Measures:
A new anchor rod was installed for the battery tie down. The negative lead, red rubber insulator and batteries were all replaced.

Event ID: 1047889 **MV** **(F)** **01-Jun-04**

Inco Ltd. **- Coleman Mine**

Incident:
A truck operator was tramming rock from location 68 when he heard a popping sound and noticed smoke coming from the battery compartment located just below the cab. He immediately stopped the truck on the ramp, set the brakes and dismounted the unit. There was a significant amount of popping noise that continued and black smoke was coming out of the battery compartment. Once the cab was lifted a fire was seen on the bottom deck of batteries, which was extinguished using a hand held fire extinguisher located on the truck. No injuries.

Cause:
Combination of loose connections and low electrolyte levels.

Preventative Measures:
When the trucks are loaded off the trolley line, electrolyte levels will be checked at the beginning of the shift. An inspection schedule will be developed for re-torquing connections. Frequency to be determined.

Event ID: 1052455 **MV** **02-Jun-04**

Inco Ltd. **- Copper Cliff Transportation & Traffic**

Incident:
Acid cars were being pulled onto the scales when the rail flipped causing three acid cars loaded with oleum to derail. No injuries, no damage.

Cause:
Excessive wear to the ball of the rail caused the track gauge to not be standard over time.

Preventative Measures:
None Given

Event ID: 1049281 **MV** **02-Jun-04**

Inco Ltd. **- Coleman Mine**

Incident:
A collision occurred between a loaded truck and Toyota Land Cruiser on the 3860 Level. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1049290 **MV** **(F)** **02-Jun-04**

Inco Ltd. **- Coleman Mine**

Incident:
While trying to start the unit, the master switch overheated resulting in a small flame. No injuries.

Cause:
A faulty master switch.

Preventative Measures:
Replaced the master switch.

Event ID: 1052285 **MV** **(F)** **03-Jun-04**

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Incident:
The operator of a Tamrock 40-ton haulage truck was driving up ramp near the 6600 Level when a fire occurred following the failure of a hydraulic hose fitting between the cooling fan pump manifold and pressure release valve. The operator activated the fire suppression system immediately extinguishing the fire. There were no injuries or damage reported.

Cause:
None Given

Preventative Measures:
The unit underwent a mechanical inspection and was repaired.

Event ID: 1018148 **MV** **07-Jun-04**

Falconbridge - Craig Mine (Counted w/Onaping)

Incident:
A worker was preparing to mark up the top portion of a face prior to the drilling cycle using a minecat tractor with a hydraulic man basket. Without warning the boom inadvertently dropped causing the basket to free-fall about 3 meters. There was no damage reported.

Cause:
A broken pin in the stem end of the lift cylinder caused the incident. Due to the position of the pin it may have been overlooked during the preventative maintenance.

Preventative Measures:
All of the equipment having lifting man baskets on them were tested on the night shift and found to be in safe working condition.

Event ID: 1049291 **MV** **(F)** **02-Jul-04**

Falconbridge - Kidd Creek - #2 Mine (Upper)

Incident:
A scissor lift operator was traveling down ramp when he noticed smoke coming from the midship area of his unit. A hand held extinguisher was used to extinguish the flames. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1049243 **MV** **(F)** **02-Jul-04**

Placer Dome - Dome Mine #3

Incident:
A D11 drill caught fire near the engine when a fuel line blew and sprayed diesel fuel on the turbo. The operator quickly extinguished the fire with a hand held extinguisher. No injuries or damage to report.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050826 **MV** **03-Nov-04**

Inco Ltd. **- Clarabelle Mill**

Incident:
While traveling along a roadway without a load the tire and outer section of the multi-piece wheel broke away. The locking ring and the outer portion of the wheel were ejected about 20 feet across the roadway. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054448 **MV** **04-Nov-04**

Falconbridge **- Thayer Lindsley Mine**

Incident:
A worker sustained an electrical shock off of the frame of a bolter while troubleshooting an apparent power problem. Although the unit was only energized for an instant and the workers injuries were not serious the incident does require analysis and explanation. No damages.

Cause:
None Given

Preventative Measures:
None Given

RM-ROCK MOVEMENT

Event ID: 1048469 **RM** **13-Jan-04**

Agrium Inc. **-**

Incident:
A clay slough was reported at stage two. It was estimated that 5,000 tons of material was displaced. Stage two removing clay came down in front of the Hitachi shovel. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048453 **RM** **14-Jan-04**

Barrick Gold Inc. **-** **Holt McDermott Mine**

Incident:
A fall of ground occurred at the 1030 sub 725 through C-97 zone. Opening dimensions were 4 metres wide x 12.5 metres long, material was displaced from the backfill. The total material displaced was 375 tons. The failed area was identified following a production blast of the stope adjacent to the failed area. Damage was sustained to the excavation and ground support, access to the area

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048495 **RM** **19-Jan-04**

Falconbridge - Lockerby Mine

Incident:
A remote controlled 9-yard scooptram was operating on remote when the brow let go in stope #57304. The back fell and buried the until under an unknown quantity of muck. Due to the nature of the back and the muck the scooptram will be left in place until morning and then the company will develop a retrieval plan.

Cause:
The primary cause of the ground fall is dilation and loss of confinement at the brow. This ground is an older abutment, and had been stressed. Blast hole mining has allowed the ground to relax resulting in dilation of structure and loss of strength. The dilation extended to the upper margin of the primary support and then the dead weight load over came the secondary support.

Preventative Measures:
The scoop will be retrieved remotely and stope mucking continued on remote. Approximately 4000 tons are still to be recovered. Secondary brow support plans for all remaining panels will be reviewed and modified as necessary to reduce future risk to equipment.

Event ID: 1048899 **RM** **26-Jan-04**

Falconbridge - Lockerby Mine

Incident:
A second brown failure (ref original failure 1/19/04) and back peel buried scooptram that was being retrieved. Blocky stress fractured ground at the brown became unconfined and overcame the support, the scoop is completely buried. An assessment is being make regarding the possible recovery of the unit. No injuries, but possible loss of a 9-yard scooptram.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1047786 **RM** **01-Feb-04**

Falconbridge - Thayer Lindsley Mine

Incident:
A strain burst in the highwall displaced approximately 20 tons of ore from the wall and shoulder. The rebar support prevented material expulsion but the screen could not contain the material. No injuries, no damages.

Cause:
The strain burst occurred to stress concentrations due to the stope closure.

Preventative Measures:
None Given

Event ID: 1049602 **RM** **14-Feb-04**

Agrium Inc. -

Incident:
A Hitachi EX-1800 shovel was mining clay in stage 2W advancing westward on the 230 bench. The slough was approximately 5000 to 7000 tons. No injuries, or damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1049603 **RM** **16-Feb-04**

Agrium Inc. **-**

Incident:
A Hitachi EX-1800 shovel was mining clay in stage 2N advancing westward on the 225 bench. The slough was approximately 30,000 tons. No injuries, no damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1049835 **RM** **20-Feb-04**

Placer Dome **- Musselwhite**

Incident:
A fall of ground occurred in the 450 Level 035SZ stope. An estimated 8,500 tons was displaced from the south stope wall. The stope was in the backfilling cycle when the event happened. No injuries, no damages.

Cause:
The blasting front was being done in a step fashion, leaving a 15 meter floor depth x 10 meter long step. The adjacent stope SZ2 (which is connected on top as it's a "A" stope) was already mined reducing the confinement of the step, which is the failed wedge. In addition, two major structures were present which acted as release plains. One of the structures is a major fault (1.5 metre wide), which passes on the southern extent of the stope.

Preventative Measures:
Stope/mining sequencing to be reviewed to ensure optimum sequencing as to maintain workable ground conditions.

Event ID: 1049790 **RM** **22-Feb-04**

Placer Dome - Dome Mine #8

Incident:
A worker noticed a run of muck (approximately 10 tons) and some timbers on track 1200 Level. A cable screen bulkhead was in place however material spilled through the bottom. Non routine hazardous task established to muck out spill and to sidigy cable screen bulkhead. No injuries or damages.

Cause:
Rotten timbers was a probable cause however the pit had a large blast the Friday prior to this incident.

Preventative Measures:
None Given

Event ID: 1050136 **RM** **22-Feb-04**

Agrium Inc. -

Incident:
Approximately 20,000 to 25,000 tons of clay slough occurred at 12:15 p.m. No injuries, or damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050137 **RM** **23-Feb-04**

Agrium Inc **-**

Incident:
About 10,000 tons of slough occurred between shifts. No injuries, no damages.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050106 **RM** **25-Feb-04**

Inco Ltd. **- Garson Mine**

Incident:
A GS 105 rockburst occurred along the west wall in mid-face of west air drift on the 4270 Level. The failure zone was in old dyke. The displacement was in the range of 3 tons. The failed material was of irregular size with the largest pieces approximately 24 inches long x 12 inches wide x 5 inches thick, which landed in front of the scissor truck platform. Much smaller pieces of the dyke material landed on the platform. The failure mechanism was a strain burst of brittle but jointed old dyke. The crew was in the process of finishing installation of ground support consisting of #6 galvanized wwm and 6 foot long rebar bolts in the west wall of the drift when the rockburst occurred. No damages were reported.

Cause:
None Given

Preventative Measures:
Heading was inspected an hour after rockburst occurred. It was decided that when development of heading resumes, face de-stressing will be in effect and strictly enforced as it is possible for bursting to continue while developing inside dyke.

Event ID: 1050446 **RM** **29-Feb-04**

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Incident:
A Hitachi EX-1800 shovel was mining clay slough in stage 2N west on the 225 bench. The slough was approximately 5,000 tons. There was no injuries or damage.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050234 **RM** **29-Feb-04**

Inco Ltd. **- Coleman Mine**

Incident:
The 19 slot south was being mucked during nightshift when the scoop operator noticed that the ground started working. The operator left the heading to allow ground to work. The operator was working in slot 18 when the fall of ground occurred around 4:50am. The east wall failed first followed by the back over half the blasted round. The peak of failure is up the 7 feet deep across 40 feet over the blasted round and the bolted round (20 feet). The estimated displacement is 250 tons. This fog was structurally controlled by a steeply dipping joint set 75 degree striking sub-parallel to the wall of slot 19 and the flat lying altered joint set dipping 30 degrees that parallels the contact between sulphide and grbx. No injuries, no damages.

Cause:
None Given

Preventative Measures:
Surveyors to cms or survey the heading to determine the shape of the opening and its proximity to the 3620 vent drift. Slots 14 to slot 17 narrow width sections underneath and around 3620 vent drift. Install 6 foot resin rebars with screen as wall support to B.R. + 2 foot on standard pattern. Maintain double barricade for slot 19 until further notice as ground was still working Sunday morning. Review mining plan for slot 19.

Event ID: 1049205 **RM** **02-Mar-04**

Inco Ltd. **- Creighton Mine**

Incident:
A fall of ground displaced 3270 tons of sandfill material from the 3401 slot-slash stope followed a 12,500 pound blast in the adjacent 3451 slot-slash panel. Blasting is not suspected as the main cause of this failure, poor quality sandfill was observed at the drawpoint and sampled. A ground control specialist, rock mechanic specialist, investigated the area on February 4th, then reviewed it with an operating general foreman and MTS personnel. Layering of the sandfill in this stope was observed. Failure is unusual in that it's "worm-holed" through fill above the current mining elevation to break-through into the sandfill beyond the sill pillar. Very little cement content is observed in the failed material at the drawpoint. No injuries, no damages.

Cause:
None Given

Preventative Measures:
A cavity monitor of the stope was taken, fill package reviewed and safety issues and mining plan discussed by all parties. More work is under way as to determination of basic cause and follow-up.

Event ID: 1053140 **RM** **04-Mar-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
An estimated 200 tons of displaced material occurred from the back and wall of the 1200 sill drawpoint at 7700 crosscut at approximately 12:30 p.m. on dayshift. The 7596 vrm stope was being mucked out remote with a 10-yard scooptram. The operator noticed small pieces of shotcrete falling from the back at approximately 10:00 a.m. Some time later he noticed the wall and back was moving. When he came back to muck out another bucket, the fog had occurred. The operator requested and was reassigned to muck elsewhere. The ground control engineer was informed by email of a "bump" at 8:15 p.m. on the 3540 Level. Upon entering the 7700 crosscut he noticed that the back had failed since an earlier visit on March 30th. When questioning the foreman he was informed of the fog. Since the dayshift Saturday to investigation time, all evidence had been cleaned up. Interviewed the scoop operator and he remembered rebars in the muckpile and small muck, less than 6 inches. The fall of ground extends 30 feet long x 16 feet wide x 3.5 feet deep (average thickness) and is estimated at 205 tons. No injuries or damage was reported.

Cause:
None Given

Preventative Measures:
Operator mucking remote and brow markers in place. Ground support recommendations being evaluated.

Event ID: 1050973 **RM** **13-Mar-04**

Placer Dome - Musselwhite Mine

Incident:
A fog occurred in the 450L035SZ stope. The failure is estimated at 200 tons from the south blast face brow which was structurally defined and gravity driven. The modified avoca stope was in the ore mucking cycle. The failure was of several pieces containing resin rebar and a total of four cable bolts two of which were "pulled" out of containment, and two broken. The cables were 8 meters in length. No injuries, no damages.

Cause:
There was a prominent steeply dipping slip present creating a wedge with the open blast face. There were no workers in the area of the failure because the area was shut down from mucking on the previous shift to observe the ground conditions, because of an increase in water coming from the area of the slip and there was "no man access" to within less than 12 metres of the brow area.

Preventative Measures:
Stope/mining sequencing to be reviewed to ensure optimum sequencing as to maintain workable ground conditions.

Event ID: 1050933 **RM** **16-Mar-04**

Falconbridge - Fraser Mine

Incident:
A 1.5 mn rockburst occurred in the D7 stringer, displacing approximately 20 tons from the back and F/W approximately 50 meters from the production face. The event occurred between shifts, no one was in the heading at the time of the occurrence. The event may have been blast initiated since the last blast in D7 was at the end of the March 15th dayshift. Seismicity had subsided to normal after the dayshift blast and started up again after the nightshift ended. No injuries.

Cause:
Stress redistribution after the dayshift blast.

Preventative Measures:
The heading has been shutdown and backfilling is planned. Plans will be reviewed for an alternative access.

Event ID: 1051067 **RM** **16-Mar-04**

Inco Ltd. **- Creighton Mine**

Incident:
A 7.2 mn event occurred at 2:47 a.m. that plots seventy feet to the footwall of the 7400 level footwall drift and has a high shear component indicating fault-slip movement. The event location is at a projection the 402 shear zone. Damage location is observed at the bottom of an unsupported ventilation raise located one hundred and thirty feet from the event. Damage can be attributed to seismic shaking resulting in bulking of the unsupported granite wall. The raise is temporary; a permanent supported location is currently being excavated. Approximately 23 tons of granite was displaced from the 4440 temperature rar on the 7530 Level. No damage to support in the bottomsill of the raise, although there are signs of high stress observed at a few rebar bolts locations. These bolts are located at the brow of the raise, which is a steeple formed at 45 and 65 degree joint sets. Signs of weight can be observed in the form of shotcrete overlap in the shoulders of the 7530 narrow vein adjacent to the raise bottomsill. The sill is currently full of waste rock, observed shotcrete condition is generally in good shape. The event ripped out a small section of screen in the 7400 footwall drift across from the 4440 electric panel (4440 sump pump). Screen is also torn off above the electric panel itself. Minor shotcrete spalling in the 4535 crosscut/6650 topsill intersection on the 7415 Level. Spalling was observed at a location between two Swellex bolts, no screen damage.

Cause:
Three events with magnitudes between 1.4 mn and 1.6 mn in the 4493 panel as the raise-bore reamed the last few feet the previous dayshift may have contributed to this incident.

Preventative Measures:
No immediate action is required for the 7530 forward drift. Ensure access is restricted to the bottomsill. Fill the raise as soon as the new rar is commissioned. Install #4 gauge screen over the torn/missing screen sections using a 4 foot x 2.5 foot staggered pattern of 5.5 foot split-set bolts (over electric panel and opposite side of drift in the 7400 forward drift. Splice any visible cracks in the shotcrete using #00 gauge straps or a #4 gauge screen as required in the 7415-4535 crosscut. Install 8 foot Swellex bolts using the 'mist' function.

Event ID: 1051300 **RM** **24-Mar-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
An estimated 70 tons of displaced material occurred from the back of the 850 forward drift south during dayshift. The area was being reconditioned with a double barricade. The reconditioning crews were working from good to bad ground. During the reconditioning process, the reconditioning crew felt the presence of excessive loose behind the screen then used the scoop bucket to scale the loose down. The fall of ground extends 15 feet long x 12 feet wide x 5 feet deep and is estimated at 75 tons. No injuries or damage was reported.

Cause:
None Given

Preventative Measures:
Access to the affected region of the mine is currently restricted. The ground support of the affected area are as follows: bolt and screen the back and walls to the base of the rail; 2.5 to 3 inch of shotcrete in the back and walls to the base of the rail; access the reconditioning of the remaining portion of the drift.

Event ID: 1051286 **RM** **25-Mar-04**

Placer Dome **- Dome Mine #3**

Incident:
A fall of ground occurred and the 5585 catch bench and ramp. No one was working at the time there were no injuries and no damage reported. The dimensions of the failed block are 30 feet high x 20 feet wide x 10 feet thick.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1053036 **RM** **31-Mar-04**

Inco Ltd. - Coleman Mine

Incident:
A jumbo was drilling a down break round in the access drift in forward rock. The driller reported hitting ore in the back holes. The heading had been seismically active since the start of down breaking. A loud seismic event occurred near the face that displaced approximately 15 tons of material. No injuries, no damage.

Cause:
None Given

Preventative Measures:
Prior to blasting the round drilled off install additional screen and bolts along the left and right walls at the face; install additional screen and bolts across the upper face (face is overhanging by 2-3 feet); future forward access drifts/down breaks on 4400, 4550, 4700 should be de-stressed and developed with a peaked back profile.

Event ID: 1047850 **RM** **01-Apr-04**

Newmont Canada Ltd.

Incident:
A piece of shotcrete fell from the north shaft wall. shotcreted area of the production shaft. Two stopes were final blasted, 4400 level 6 and the 4350 level 7. The L6 stope is approximately 60 metres away from the shaft while the L7 stope is 100 metres away. It is suspected that blast concussion shock shotcrete from the shaft wall. The shaft crew was brought in to complete shaft inspections and remove further loose from the suspect area. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1050394 **RM** **03-Apr-04**

Falconbridge - Craig Mine (Counted w/Onaping)

Incident:
An approximate 9 ton rock burst occurred due to a final burst in the ventilation raise on the 51-2 Level. Straps held in most of material considering there were mechanical bolts used in the installation of the straps. One bolt snapped off. It is questioned that the strapping was not continuous. Most of the damage was below support. No injuries resulted.

Cause:
Several seismic events were triggered by a raise breakthrough blast; one of the events at 16:22 caused a burst on the 4900 Level 49-875 drift which ejected approximately 8.5 tons of rock from an unsupported portion of the drift wall.

Preventative Measures:
The top of raise in the 4900 site was inspected by the ground control engineer with a full report to follow. The area below the 4900 is secured as a precaution and the site will be re-inspected tomorrow morning. The following actions will be taken: remove bagged muck in screen; bolt and screen entire of the opening with the #7 rebar then install three horizontal rows of 10 foot straps along the wall using 8 foot cone bolts; and review mine plan around major faulted zones.

Event ID: 1053142 **RM** **04-Apr-04**

Inco Ltd. **- Coleman Mine**

Incident:
A round in the 170 orebody ramp was blasted at the end of the shift. The crew on nightshift was gearing up to muck out the blasted round and noticed damage to the back of the previously supported round. No injuries or damage reported.

Cause:
None Given

Preventative Measures:
The area was guard railed pending a ground control assessment. The following recommendations were implemented: muck out displaced and blasted muck without exposing the operator to unsupported ground; scale remaining loose with drill - either MacLean bolter or jumbo drill; recondition previously supported round (painted up on walls) with 8 foot rebar and galvanized screen. Shoulder de-stress holes for blasted round were collared 2 feet below shoulder and drilled horizontal. Review with jumbo drillers proper collar location and angles for de-stress holes.

Event ID: 1047853 **RM** **01-May-04**

Kinross Gold **- David Bell Mine**

Incident:
A ground fall occurred on the 7 Level D4 between January 2nd and 5th after a long hole blast. The final blast on the stope and approximately 50 tons fell from the back in the ore zone. This event was observed on January 5th, 2004. The 5th rebar was used and 7ft of the back came down. No injuries, no damage.

Cause:
This area was very wide and should have been cable bolted.

Preventative Measures:
Failure is confined to the ore zone and does not pose a hazard to personnel. The area where the stope is widened will be cable bolted.

Event ID: 1049832 **RM** **02-May-04**

Placer Dome - Musselwhite Mine

Incident:
An 8-yard Atlas Copco scooptram was mucking remotely when it was struck by a large piece of loose, damaging the cab. The loose fell from an unsupported wall inside of the stope. No injuries, no damages.

Cause:
None Given

Preventative Measures:
The area was shut down for evaluation and the scooptram will not be used until the cab is replaced.

Event ID: 1018115 **RM** **06-May-04**

Falconbridge - Fraser Mine Nickel Zone

Incident:
An event occurred that displaced approximately 100 tons of material from inside the open stope (H/W sloughage) along major structures. Damage was sustained to the excavation at a depth of 1000 metres in the F/Q area which is active. The depth of the failure is 3.0 metres. NW-S3 Tranding, steeply-dipping faults. These structures are persistent and extend over 300 metres from Inco property to 607 ramp. The failure mode was stress and structure fault/slip and structural re-adjustments which resulted in 100 tons of F.O.G. Support held well in the main travelway but some bagging of screen occurred in the main 607 ramp. The event was felt on the surface and recorded on the micro seismic system. No injuries.

Cause:
Two rockbursts triggered the fall of ground.

Preventative Measures:
The area was barricaded after the first event and remained shut down until it was inspected the following day. No rehab is required in the stope access; sections of the main 607 ramp will be re-inspected during the week of May 10th to determine rehab requirements, if any. The 33-0-635 LHS will be mucked out as quickly as possible and backfilled remotely with fill line/drill hole entering LH stope from above the level.

Event ID: 1052441 **RM** **10-May-04**

Inco Ltd. **- Copper Cliff South Mine**

Incident:
The blaster boss reported seismic damage May 12 and double guard-railed the area. The heading was visited by the ground control engineer and the beat foreman the next day who found 12 tons of quartz-diorite rock displaced from the east wall. No injuries, or damage reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052440 **RM** **10-May-04**

Inco Ltd. **- Coleman Mine**

Incident:
Damage to 06-09 post pillar was noticed during nightshift on May 18, 2004. The event was not recorded by the micro seismic system, this coupled with the absence of reports of audible seismicity in the orebody suggest that the event occurred at 10:30 pm on May 18, 2004, during central blasting. Post pillar location coincides with an unmined area of rock on the previous sill cut. The event displaced material 20 x 6 foot mechanical rock bolts and mine screen. Minor damages to post pillar 06-11 was noticed below installed ground support. No injuries.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1052439 **RM** **15-May-04**

Inco Ltd. - Coleman Mine

Incident:
The damage and displaced material in 12 slot Dr. S. was noticed at the start of the dayshift on Saturday morning. The event is believed to have occurred during central blast time at the shift change. A round was blasted at the end of the previous shift in 13 slot drifts.

Cause:
The displaced material originated from the lower wall of the rib pillar at the future location of 13-13 crosscut which was not supported on the previous cut as per local moc. Crews also noticed thin shards of ground displaced from the shoulder of the 12 slot Dr. S. and seismicity was heard along the west wall of the 13 slot Dr. S. during the investigation which may be associated with the lunchroom fault that crosses through the adjacent 14 slot S.

Preventative Measures:
None Given

Event ID: 1018122 **RM** **15-May-04**

Falconbridge - Thayer Lindsley Mine

Incident:
A fall of ground was discovered on the 11-3 east level at 7:30 a.m. that displaced approximately 350 tons of material. The loading crew was pulled out of 11-3 east Level around 1:00 a.m. and at 4:13 a.m. there was a sudden increase of seismic activities. A 2.1 mn event induced a 200 ton fall of ground at the intersection of the level entrance and back burst in a 10 metre section of the access drift causing displacement of approximately 150 tons. No equipment damage, no injuries.

Cause:
Level 11-3 is located in "pillar" core with a sill pillar above and a panel height below (20-25 metres). This level is under stress concentration and a damaging burst on the same level occurred in January 2004.

Preventative Measures:
Recent slot blasting on 11-2, 11-3 and 10-0 were fenced off after the incident. A team of Joint Health and Safety Committee members, ground control personnel and a consultant visited the sites and future mining plans/options are being discussed. Level 10-0 has been released for blasting while the east side of 11-2 and 11-3 will not be released until a thorough assessment is complete.

Event ID: 1052438 **RM** **21-May-04**

Inco Ltd. **- Coleman Mine**

Incident:
A breakthrough round in slot 11 was blasted at 6:30 a.m. yesterday. Increased level of seismicity was reported to on-coming dayshift crew. Night shift reported damage to 12-17 post pillar after midnight. Two events were recorded by the micro seismic system at 12:39 a.m. near the rockburst. The 12-17 post pillar location coincides with unmined area of rock on the previous sill cut (similar to me-74, post pillar 06-09). The event displaced approximately 30 tons of material from the west wall of the post pillar, displacing 2 sheets of screen off the wall and damaging adjacent wall screens. Approximately twelve mechanical wall bolts were damaged or broken. No visible damage to the back was found in slots 11-14.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1021190 **RM** **21-May-04**

Inco Ltd. **- Coleman Mine**

Incident:
An increased level of seismicity was reported by the nightshift crew as well as damage to the 12-17 post pillar after midnight. Two events were recorded by the micro seismic system at 12:30 .a.m. near the rockburst. The 12-17 post pillar location coincides with an unmined area of rock on the previous sill cut (similar to ME-74, post pillar 06-09). The event displaced approximately 30 tons of material from the west wall of post pillar, displacing 2 sheets of screen off the wall and damaging adjacent wall screens. Twelve mechanical wall bolts were damaged or broken. No visible damage to the back was found in slots 11-14. No injuries, or damage reported.

Cause:
None Given

Preventative Measures:
Rehab the damaged area with split sets and screen before blasting slot 13. Identify all unmined areas on previous cuts in lmob (high burst potential). Accelerate placement of fill beside and in front of remaining post pillars. Ensure post pillar wall support is maintained to requirements. Consider de-stressing unmined areas of rock to prevent stress concentration.

Event ID: 1018131 **RM** **21-May-04**

Inco Ltd. **- Garson Mine**

Incident:
A rockburst occurred along the south wall affecting the lower and middle wall of the 4 shear west drift on the 4700 Level. Crews were supporting the walls of the latest round, 12 feet east of the area where the burst occurred. The failure zone was in greenstone. The total displacement was in the range of 20 tons, but some of it was loosely accumulated behind the screen. Failed material was of irregular size with the largest pieces measuring approximately 36 inches long x 24 inches wide x 10 inches thick. The failure mechanism was a strain burst of the brittle, highly jointed and sheared greenstone. Ground support in that part of the drift consisted of #6 galvanized WWM and 6 foot long rebar bolts. The screen on the walls extended to within 5 feet from B.R. There were no injuries or equipment damage. The south wall was not de-stressed, as the old dyke was over 40 feet inside the wall.

Cause:
None Given

Preventative Measures:
The heading was inspected an hour after the rockburst occurred and barricaded off for 20 hours after which reconditioning of the affected area consisting of bolting and screening to within a foot from B.R. will commence. The de-stressing of the south wall will continue to be in effect during further development of the drift, as the drift currently runs alongside the old dyke.

Event ID: 1055692 **RM** **23-May-04**

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Incident:
The operator of a scooptram was mucking on remote 450L035 stope. The brow of the stope was approximately 5 feet south of the drawpoints south wall and was open approximately 4 feet. The remote scoop was 3/4 into the stope (mucking straight - perpendicular to the strike of the stope and parallel to the brow) when large chunks of muck came down the muckpile, through the open brown and pinning the scoop to the north wall of the drawpoint. No injuries, or damage reported.

Cause:
In the stope, they are mining a converging pillar (stopes/backfill) from both the north and south have converged to this drawpoint. There is no opportunity for the operator to get a better view into the stope/muckpile, as the pillar/stope is too small to muck longitudinally. There is no opportunity to create additional drawpoints into the stope. The stope is designed to muck remote and tale-remote.

Preventative Measures:
Review incident with operators and engineering department. Ensure the drawpoint and brow is sufficiently lit up with external lighting.

Event ID: 1018135 **RM** **25-May-04**

Falconbridge - Lockerby Mine

Incident:
A fall of ground occurred in 60-0-605 under sill access following a stope blasting in 60 blast hole panel 3. The displaced weight is estimated to be 150 tons and measuring approximately 4 metres wide x 10 metres long x 2 metres deep on back. No injuries, no damage.

Cause:
Joints in the blocky forward norite had pre-defined wedge like blocks in the back of the failed section and these blocks lost some of their inter-block shear strength due to stress relaxation after blasting 60-panel 3. Local support consists of 2.1metre Swellex and #7 screen on 1.2 metres x 1.2 metre pattern. This was a large blast of 18,000 tons of ore using 7500 kg of emulsion (maximum charge per delay - 400 kg). Under reduced inter-block strength and dynamic loading the support system was not strong enough to retain the back blocks.

Preventative Measures:
Access was barricaded and a rehab plan is being discussed. Support systems are being verified in other stope accesses.

Event ID: 1050971 **RM** **03-Jun-04**

Placer Dome - Campbell Mine

Incident:
While blasting the second level hole block (3,300 tons), approximately one minute after the blast, the event took place. No injuries, no damage.

Cause:
Rock ejection due to 'seismic energy transfer' and then trigger rock fall due to seismic shake.

Preventative Measures:
The area is presently shut down. A plan of action by engineering, rock mechanics and mining department to follow before mining resumes.

Event ID: 1018145 **RM** **03-Jun-04**

Falconbridge - Craig Mine (Counted w/Onaping)

Incident:
Several seismic events occurred around an inaccessible vent raise including multi magnitudes 1.9, 1.8, 2.5, and 0.8. The raise is bracketed by two faults and is bulk headed off by a shotcrete wall at the bottom and a timber bulkhead was removed for inspection, about 20 tons of muck was found at the bottom of the raise. Not possible to tell when it was dislodged by assumed to be with seismic activity. No injuries or damage reported.

Cause:
None Given

Preventative Measures:
Plan to add rockburst support in a nearby ramp that crosses fault zone; review instrumentation, and possibly install an extensometer in a raise area.

Event ID: 1052289 **RM** **05-Jun-04**

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Incident:
A clay slough occurred when a Hitachi EX-1800 shovel was mining clay in stage 2N advancing west on the North end of the 220 bench. The slough was approximately 5,000 tons. There were no injuries or damage reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1048011 **RM** **01-Jul-04**

Inco Ltd. - Stobie Mine

Incident:
A fall of ground occurred on the left wall and shoulder (part of back in 2280 HW drive) on the 2140 level between 4:00-8:00 a.m. Failure zone on wall measures approximately 6 feet deep into the wall by 10 feet long x 20 feet high displacing approximately 85 tons of irregular/blocky material. The material failed to 2 controlling joint sets both striking approximately parallel to the heading with one dipping at 85 degrees and the other at 40 degrees forming a wedge-like failure in the wall. The rockmass in the area is fractured, slightly damp and oxidized dessimated inclusion quartz diorite. The ground support in the area is 2.5 inches of sfrs on the back and walls to base of rail with 6 foot rebar on 4 foot x 4 foot pattern and 15 feet long cable bolts on 5 foot x 5 foot pattern as a secondary support in the back. The failure mechanism is high stress in the abutment causing a structurally controlled fall of ground between the two prominent structures. Four broken rebars were noticed in the muck pile and one cable where the rock peeled from the bottom 5 feet. The cable bolts essentially supported the back. There were no injuries or damage.

Cause:
None Given

Preventative Measures:
The ground control engineer inspected the heading. The ground control recommendations for the area are as follows: recondition the failure area (back and walls) from current brow up to 2085 crosscut with at least 2.5 inches of SFRS; recondition the 2085 crosscut highwall intersection and 20 feet of the 2085 highwall with 8 foot rebar in back, 6 foot split-sets in walls to base of rail with screen on a 4 foot x 2.5 foot pattern; blast remaining rings in 1 shot up to 2085 cross-cut intersection; and wait until the cave in highwall intersection in 1-shot approximately 7 months away.

Event ID: 1050567 **RM** **03-Jul-04**

Inco Ltd. **- Coleman Mine**

Incident:
A fall of ground occurred as a jumbo operator was almost done drilling off a round. The event displaced approximately 9 tons of material from the face measuring 12 feet high x 6 feet wide x 1.5 feet deep, causing minor damage to one of the jumbo booms. No injuries.

Cause:
None Given

Preventative Measures:
There is evidence to indicate that the prescribed de-stress drilling and blasting procedure was not followed. The heading has been shut down pending a review of implementation procedures leading to operator compliance with 4945 de-stress blasting standards and practices.

Event ID: 1050807 **RM** **03-Sep-04**

Newmont Canada Ltd. **- Golden Giant Mine**

Incident:
A 280 ton rock fall occurred at an intersection 1 meter above the ground support system measuring 3 metres deep. No injuries or damages reported.

Cause:
None Given

Preventative Measures:
None Given

Event ID: 1054012 **RM** **04-Dec-04**

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Incident:
A mine supervision found material had been displaced from the back of the stope between the 950 sub level and the 930 sub levels in the C97 upper 712 stope area. This displacement occurred in a through that had restricted access, which was being mucked under remote control. Total displaced material is estimated at approximately 150 tons.

Cause:
It appears that the displacement was a direct result of the long hole stope blast at this location.

Preventative Measures:
None Given