MAI-2015-02

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
Metal and Nonmetal Mine Safety and Health

REPORT OF INVESTIGATION

Underground Metal Mine
Gold Ore

Fatal Hoisting Accident

January 11, 2015

Cementation USA
Contractor ID No. M445
at
Leeville
Newmont USA Limited
Carlin, Eureka County, Nevada
Mine ID No. 26-02512

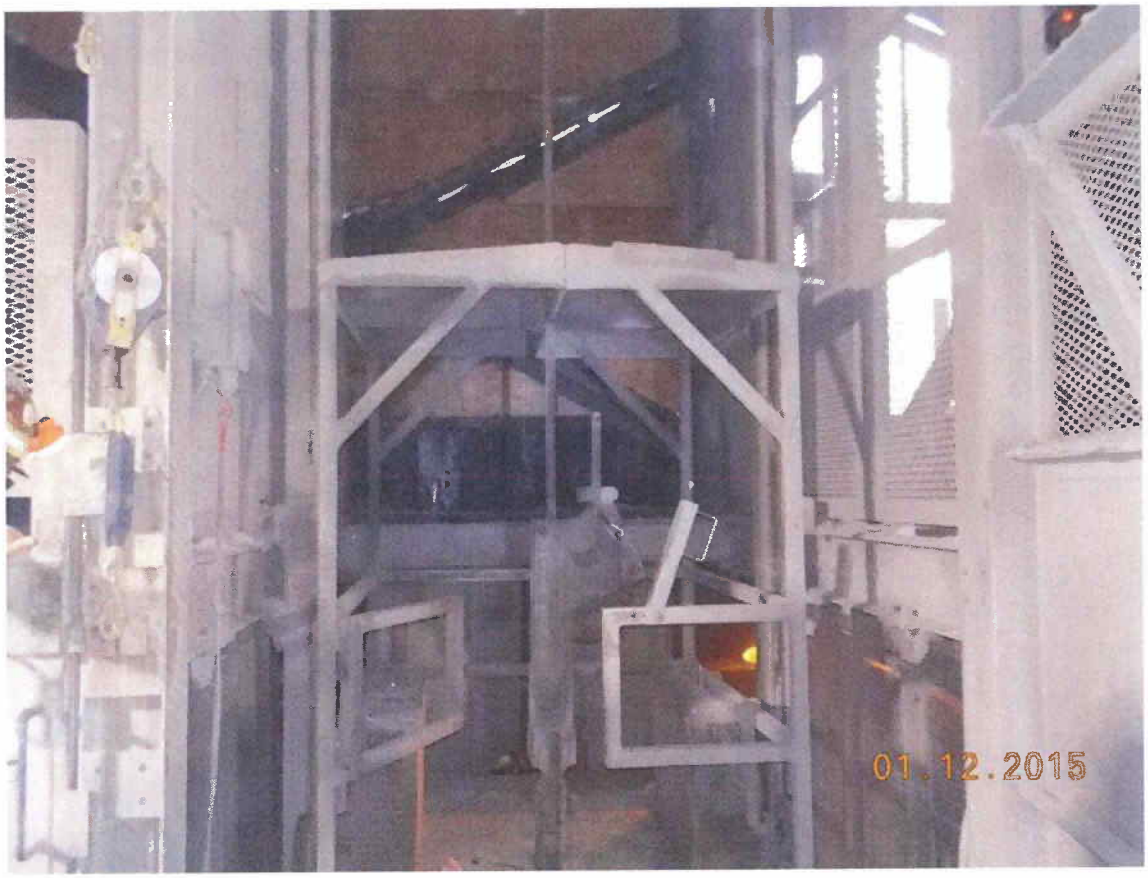
Investigators

Lead Investigator
José J. Figueroa
Supervisory Mine Safety and Health Inspector

Charles Snare
Mine Safety and Health Inspector

Norman Zeman
Supervisory Mine Safety and Health Specialist (EFS)

Originating Office
Mine Safety and Health Administration
Western District
991 Nut Tree Road
Vacaville, CA 95687
Wyatt S, Andrews, District Manager



Work platform on top of the ventilation shaft skip

OVERVIEW

On January 11, 2015, Brian Lee Holmes, Contract Shaft Miner, age 53, was killed while positioned on a work platform on top of a skip. The skip was traveling up a ventilation shaft when Holmes struck a steel beam in the shaft structure.

The accident occurred due to management's failure to identify possible hazards and establish safe procedures associated with persons riding on top of conveyances. Although the mine operator had written procedures for personnel hoisting in the ventilation shaft, the procedures did not address all of the hazards, specifically those associated with persons riding on top of work platforms on a skip.

The speed of the hoist was too fast for the conditions present in the shaft. The hoist's speed did not allow the victim sufficient time to remain clear of the steel beam while the skip was moving. Additionally, the victim's lanyard was not short enough to prevent him from contacting the shaft steel beams while the skip was moving.

GENERAL INFORMATION

Leeville, an underground gold mine owned and operated by Newmont USA Limited, is located near Carlin, Eureka County, Nevada. The principal official is Gus Friesen, General Superintendent. The mine operates two 12-hour shifts per day, 5 days per week. Total employment is 482 persons.

At this mine, gold bearing ore is drilled and blasted. The broken material is transported to the skip area by Load Haul Dump (LHD) units. The material is hoisted to the surface and stockpiled. It is then transported by haul trucks to a mill and refinery to be processed. The finished product is sold to commercial industries.

Cementation USA, Inc., located in Sandy, Salt Lake County, Utah, is a contracting company that provides underground mine development and production services to mining operations throughout the United States. The principal operating official is Justin Oleson, President.

Newmont USA Limited contracted the shaft rehabilitation work at Leeville mine to Cementation USA, Inc. The contractor's crews work two 10-hour shifts per day, seven days per week. The contractor employs 15 people at the mine.

The Mine Safety and Health Administration (MSHA) completed the last regular inspection at this operation on December 17, 2014.

DESCRIPTION OF THE ACCIDENT

On the day of the accident, January 11, 2015, Brian Lee Holmes, (victim) arrived at the mine at 7:00 a.m., his usual arrival time. At 7:30 a.m., he attended a safety meeting conducted by Tim Goodell, Project Supervisor, Cementation USA. After the safety meeting, Goodell assigned Holmes, Brett Hughes and Joshua Eoff, Miners, to work at the 1350 level of the #1 ventilation shaft.

The crew was assigned to clean all the shaft structural dividers and to take measurements of the ones that needed to be changed or repaired that were located below the 1350 level pocket. Goodell, Hughes, Eoff, and Holmes went to the #2 skip work platform located at the #1 ventilation shaft and traveled down to the Galloway. After the crew discussed what materials and tools would be needed to perform the assigned task, they returned back to the surface to get tools. Between 8:30 a.m. and 8:45 a.m., Hughes, Eoff, and Holmes went to the #2 skip work platform and traveled back down to the Galloway. Hughes stayed at the Galloway for radio communication with the surface. Eoff and Holmes got in the carrier of the Galloway and lowered down to start to clean the dividers. The crew continued working without incident until approximately 12:00 p.m. when they decided to go to the surface to take a lunch break.

Hughes, Eoff, and Holmes went to the #2 skip work deck and got on board. The crew was wearing safety harnesses and anchored their lanyards to the hoist rope located in the middle of the work deck. Hughes was standing in the back of the deck, Eoff was sitting on the front carrier left guard, and Holmes was standing on the right side of the front gate facing forward. After the crew was ready, Holmes gave the signal to raise the skip to Daren Coats, Hoist Operator, and he began raising the skip. As the #2 skip work deck was traveling up to the shaft collar, Coats stopped the skip at the 200 feet level momentarily to clutch out (a mechanical procedure that separates the hoist dual drums to allow the hoist operator to adjust the positions of the two skips in the shaft).

When interviewed, Hughes stated that immediately after the skip started to travel up, he saw Holmes sneeze and move his head forward, hitting a shaft structural steel cross beam at the 195 feet level. Holmes was caught between the hand rail and the beam. The clearance between the skip work deck hand rail and the steel beam measured 5½ inches. The skip was traveling at 200 feet per minute.

As soon as the accident happened, Hughes called on the radio and requested an Emergency Medical Technician (EMT). Immediately after Coats heard the radio request, he called the EMT's. Company Emergency Medical Technicians began resuscitative efforts once the skip arrived at the collar. A company ambulance transported the victim to a helipad. The paramedics on the helicopter flight crew assessed Holmes and pronounced him dead on site at 12:49 p.m., as instructed by a doctor from a nearby hospital. The cause of death was attributed to multiple blunt force injuries.

INVESTIGATION OF THE ACCIDENT

MSHA was notified of the accident at 12:43 p.m. on January 11, 2015, by a telephone call from Cody Jones, General Foreman, to the MSHA National Call Center. The Call Center notified Melvin Lapin, Supervisory Mine Safety and Health Inspector, and an investigation was started the same day. An order was issued under the provisions of Section 103(j) of the Mine Act to ensure the safety of the miners. This order was later modified to Section 103(k) of the Mine Act when the first Authorized Representative arrived at the mine.

MSHA's accident investigation team traveled to the mine, made a physical inspection of the accident scene, interviewed employees, and reviewed documents and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management and employees.

DISCUSSION

Location of the Accident

The accident occurred on the #2 skip work deck located in the #1 ventilation shaft. The 20-foot diameter, concrete-lined, circular exhaust shaft is 1,460 feet deep from the collar, and has two skips.

A steel work platform, 11 feet 6 inches long, by 5 feet 8 inches wide, is mounted above each of the skips. Each is provided with a bonnet, handrails, and a gate. The top handrails are 42 inches from the floor.

Hoist Involved in the Accident

The hoist involved in the accident is a Bertram Double Drum Hoist, model number 13818, manufactured by Nordberg. At the time of the accident, the hoist speed was 200 fpm. The investigators inspected the hoist and did not find any defects affecting safety.

Fall Protection

At the time of the accident, Hughes was wearing a Miller Python model #P950-4/UNG fall protection harness that was manufactured in July 2013. The lanyard was a 6 ft. long, DBI-SALA Protecta model #1340121 that was manufactured in June, 2014.

MEDICAL ANALYSIS AND FINDINGS

A sample of the victim's blood was analyzed for alcohol and controlled substances by an independent laboratory. Tetrahydrocannabinol was found in the blood at a concentration of 10 ng/ml and carboxyetrahydrocannabinol was also found in the blood at a concentration of 5.7 ng/ml. The presence of tetrahydrocannabinol and carboxyetrahydrocannabinol indicated prior use of marijuana.

TRAINING AND EXPERIENCE

Brian Lee Holmes had 35 years of mining experience and had worked for 12 weeks and 3 days at this mine. He had worked at other mining operations performing shaft construction. A representative of MSHA's Educational Field and Small Mine Services conducted an in-depth review of the mine operator's training records. The training records for Holmes were found to be in compliance with MSHA's training requirements.

ROOT CAUSE ANALYSIS

The investigators conducted a root cause analysis and identified the following root cause:

Root Cause: Management failed to establish policies or procedures to protect miners by failing to identify possible hazards. The hoist speed was too fast for the conditions present in the shaft and on the skip at the time of the accident. The victim's lanyard was not short enough to prevent him from contacting the shaft steel beams while the skip was moving.

Corrective Action: The mine operator installed new enclosed cages on top of the skips.

Root Cause: Management failed to establish and train miners on safe procedures for the transportation of persons in conveyances.

Corrective Action: The mine operator developed a new standard operating procedure for the transportation of persons in conveyances and has trained all miners who utilize the modified skips on this new procedure.

CONCLUSION

The accident occurred due to management's failure to identify possible hazards and establish safe procedures associated with persons riding on top of conveyances. Although the mine operator had written procedures for personnel hoisting in the ventilation shaft, the procedures did not address all of the possible hazards, specifically those associated with persons riding on top of the skip's work platforms.

The speed of the hoist was too fast for the conditions present in the shaft. The hoist's speed did not allow the victim sufficient time to remain clear of the steel beam after striking it while the skip was moving. Additionally, the victim's lanyard was not short enough to prevent him from contacting the shaft steel beams while the skip was moving.

ENFORCEMENT ACTIONS

Issued to Newmont USA Limited

Order No. 8789146 - Issued under the provisions of Section 103(j) of the Mine Act. An Authorized Representative modified this order to Section 103(k) of the Mine Act upon arrival at the mine site:

> *An accident occurred at this operation on 1/11/15 at approximately 12:16. As rescue and recovery work is necessary, this order is being issued, under Section 103(j) of the Federal Mine Safety and health Act of 1977, to assure the safety of all persons at this operation. This order is also being issued to prevent the destruction of any evidence which would assist in investigating the cause or causes of the accident. It prohibits all activity at the #1 vent shaft and associated hoist except to the extent necessary to rescue an individual or prevent or eliminate an imminent danger until MSHA has determined that it is safe to resume normal mining operations in this area. This order applies to all persons engaged in the rescue and recovery operation and any other persons on-site. This order was initially issued orally to the mine operator at 12:58 and has now been reduced to writing.*

This order was terminated after conditions that contributed to the accident no longer existed.

Citation No.8702816 -- Issued under provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 57.19061:

> *A fatal accident occurred at this mine operation on January 11, 2015, when a contractor miner struck a structural steel cross member in the shaft. The miner was traveling up on the number two skip work deck of the number 1 ventilation shaft. The hoist speed was too fast for the conditions present in the shaft and on the skip at the time of the accident. This did not allow the miner sufficient time to remain clear of the steel beam while the skip was moving.*

Issued to Cementation USA, Inc.

Citation No. 8702815 – Issued under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 57.15006:

> *A fatal accident occurred at this mine operation on January 11, 2015, when a contractor miner struck a structural steel cross member in the shaft. The miner was traveling up on the number two skip work deck of the number 1 ventilation shaft. The safety lanyard used was not short enough to keep the miner from contacting the shaft steel beams while the skip was moving.*

Citation No. 8702817 – Issued under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 57.19061:

> *A fatal accident occurred at this mine operation on January 11, 2015, when a contractor miner struck a structural steel cross member in the shaft. The miner was traveling up on the number two skip work deck of the number 1 ventilation shaft. The hoist speed was too fast for the conditions present in the shaft and on the skip at the time of the accident. This did not allow the miner sufficient time to remain clear of the steel beam while the skip was moving.*

Approved: Wyatt Andrews Date: 6/3/2015

Wyatt Andrews
District Manager

APPENDIX A

Persons Participating in the Investigation

Newmont USA Limited

Randy Squires	Sr. Manager for Regional Safety Relations
Chris Drobny	Underground Health, Safety and Loss Prevention
Daren Coats	Hoist Operator
Steve Garvin	Underground Health, Safety and Loss Prevention
Hillary Wilson	Legal Counsel
Cody Jones	General Foreman
Charlie Treadwell	Cager

Cementation USA, Inc.

Brian Still	Manager Health and Safety
Brett Hughes	Miner
Joshua Eoff	Miner
Tim Goobell	Project Supervisor

Jackson Lewis P.C.

Donna Vetrano Pryor	Attorney at Law

Eureka County Sheriff's Office

Michael Harter	Deputy Sheriff

Mine Safety and Health Administration

José J. Figueroa	Supervisory Mine Safety and Health Inspector
Norman Zeman	Supervisory Mine Safety and Health Specialist
Charles Snare	Mine Safety and Health Inspector

Accident Investigation Data - Victim Information

Event Number: 6 5 9 7 6 6 5

U.S. Department of Labor
Mine Safety and Health Administration

Victim Information: 1

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:
Brian L. Holmes	M	53	01 Fatal

5. Date(MM/DD/YY) and Time(24 Hr.) Of Death:	6. Date and Time Started:
a. Date: 01/11/2015 b.Time: 12:49	a. Date: 01/11/2015 b.Time: 7:00

7. Regular Job Title:	8. Work Activity when Injured:	9. Was this work activity part of regular job?
080 Shaft Miner/Shaft Repairer	062 Riding on skip	Yes X No

10. Experience	a. This Work Activity:	Years	Weeks	Days	b. Regular Job Title:	Years	Weeks	Days	c. This Mine:	Years	Weeks	Days	d. Total Mining:	Years	Weeks	Days
		2	9	0		3	0	0		0	12	3		35	0	0

11. What Directly Inflicted Injury or Illness?	12. Nature of Injury or Illness:
063 Skip	370 Multiple Blunt Force Injuries

13. Training Deficiencies:
Hazard: | New/Newly-Employed Experienced Miner: | Annual: | Task:

14. Company of Employment: (if different from production operator)
Cementation USA, Inc.
Independent Contractor ID: (if applicable) M445

15. On-site Emergency Medical Treatment:
Not Applicable: | First-Aid: X | CPR: X | EMT: X | Medical Professional: | None:

16. Part 50 Document Control Number: (form 7000-1) 220150200083
17. Union Affiliation of Victim: 9999 None (No Union Affiliation)