

West Virginia Office of Miners' Health, Safety and Training

November 1, 2021

Report of Fatal Personnel Carrier Accident

Mingo Logan Coal, LLC

Mountaineer II Mine

Permit No. U00503197

Route 17 near Sharples, Logan County, WV

Region Two

830 Virginia Ave

Welch, WV 24801

Benjamin Hamilton, Inspector-at-Large

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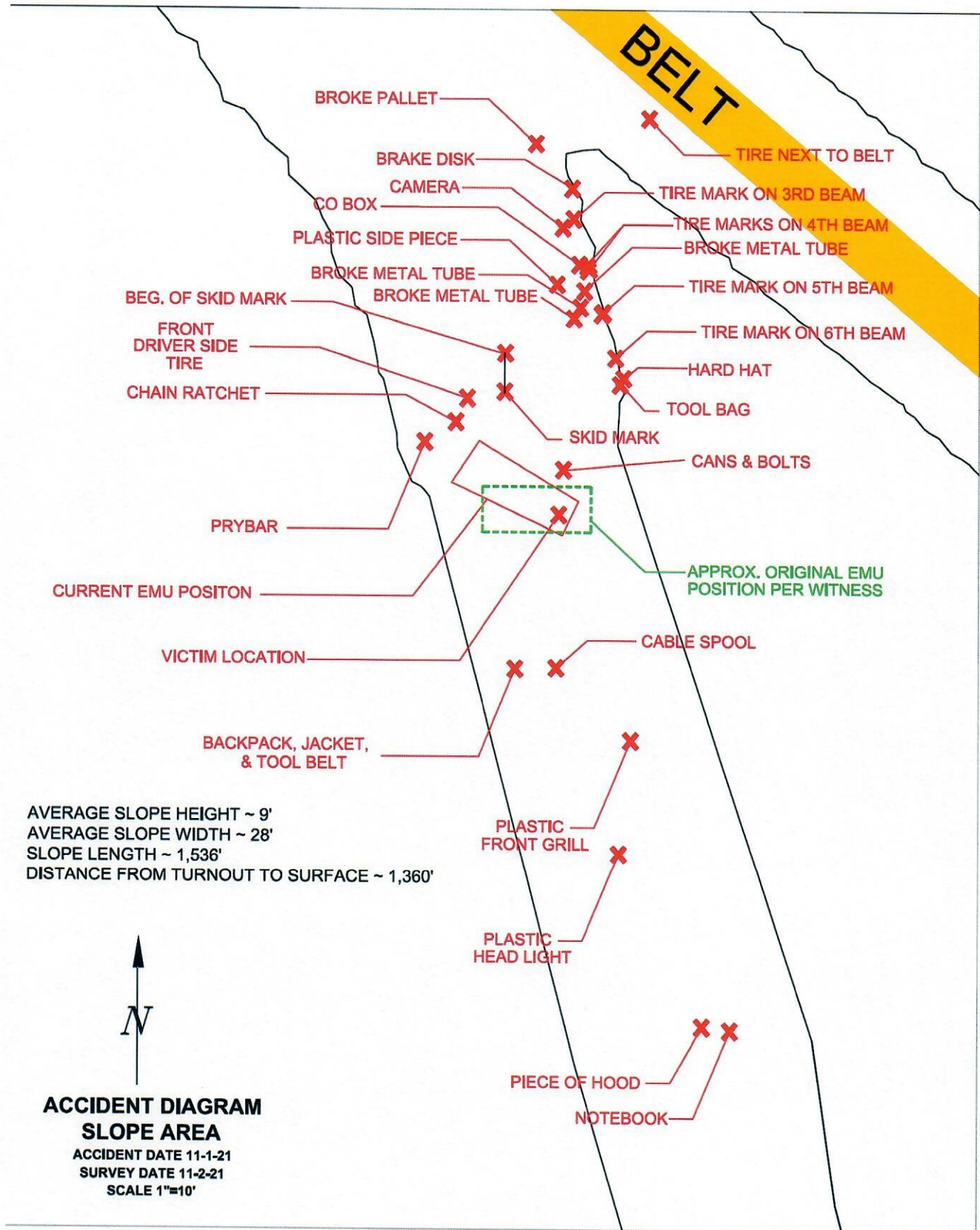
The purpose of this photo is to depict what a typical 4 man Electric Mining Utility Vehicle (“EMU”) would look like. This is identical to the EMU involved in the accident.



Accident scene, showing the No. 7 EMU on it's top. This photo was taken after Mr. Wallen had been removed from under the No. EMU.



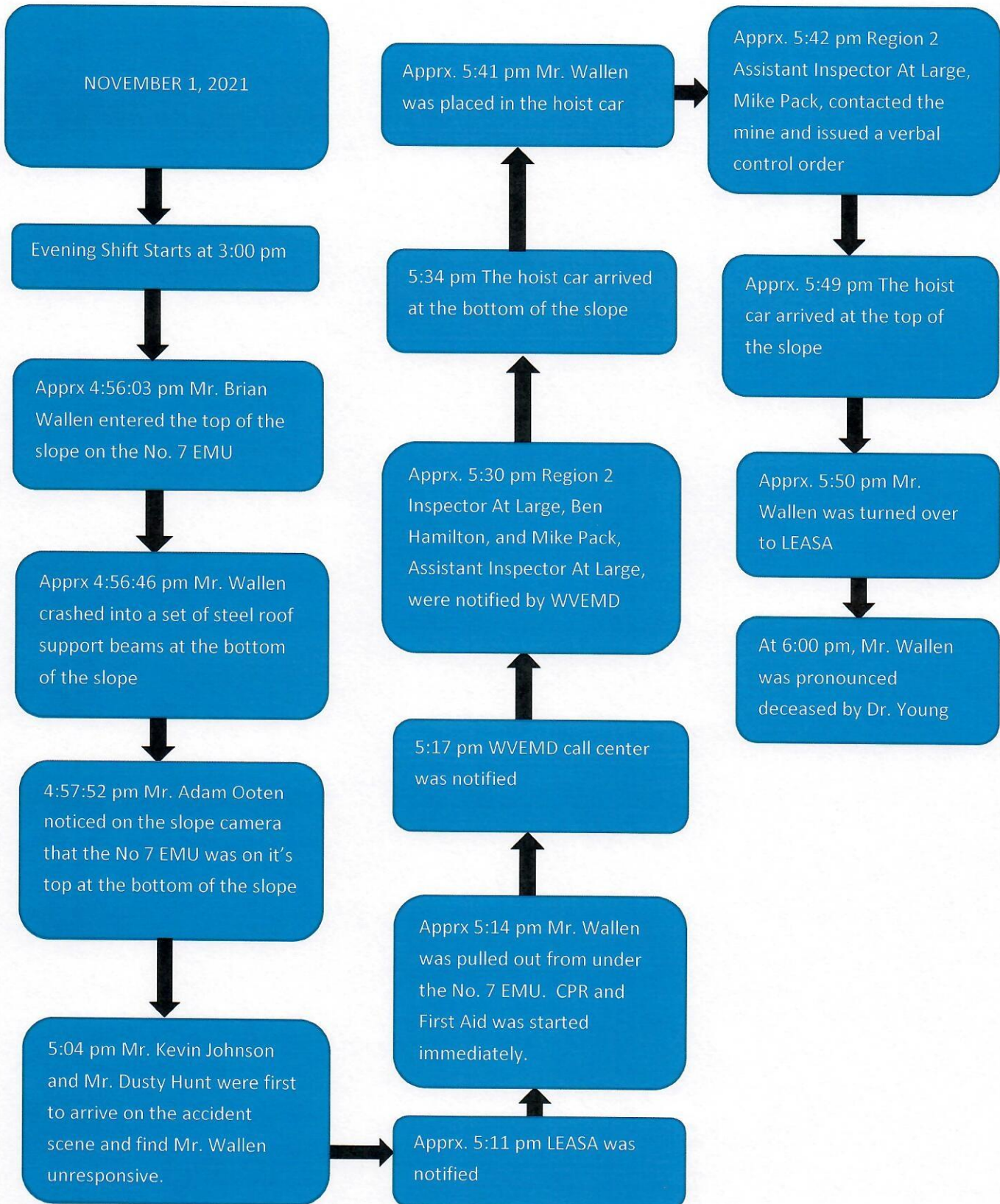
Steel beams at the bottom of slope that the No. 7 EMU collided with during the accident.



AVERAGE SLOPE HEIGHT ~ 9'
 AVERAGE SLOPE WIDTH ~ 28'
 SLOPE LENGTH ~ 1,536'
 DISTANCE FROM TURNOUT TO SURFACE ~ 1,360'

ACCIDENT DIAGRAM
SLOPE AREA
 ACCIDENT DATE 11-1-21
 SURVEY DATE 11-2-21
 SCALE 1"=10'

TIMELINE



GENERAL INFORMATION

This report is based on an investigation conducted in accordance with Chapter 22A Article 1 Section 14 of the West Virginia Code.

The Mingo Logan Coal, LLC Mountaineer II Mine was permitted to operate on September 23, 2004. The Mountaineer II Mine has 334 employees working two production shifts and one idle (maintenance) shift and operates five room and pillar sections and one construction section.

Mr. Brian Delmer Wallen was employed as an electrician at the Mingo Logan Coal, LLC Mountaineer II Mine on August 10, 2020. Mr. Wallen received his WV electrical certification on September 20, 2018. He received his last current annual refresher on December 5, 2020, and his last current electrical retraining on October 30, 2021.

Mr. Wallen, a 49-year-old electrician from Langley, KY with 25 years of mining experience, was fatally injured while traveling down a 12% slope on a rubber tired, battery powered, self-propelled personnel carrier, electric mining utility vehicle. This is also known as No. 7 EMU. Mr. Wallen struck a set of steel support beams located near the bottom of the slope, causing the No. 7 EMU to turn over, entrapping him under the No. 7 EMU.

On November 1st, at 5:11 p.m., the Logan Emergency Ambulance Service Authority (L.E.A.S.A.) was notified to respond to the Mountaineer II Mine for a miner who was unconscious and unresponsive. The West Virginia Division of Homeland Security and Emergency Management (WVOHSEM) was notified of the accident at 5:17 p.m. Mike Pack, Assistant Inspector-at-Large for the Welch Office of West Virginia Miners Health, Safety and Training (WVOMHST), was notified at 5:30 p.m. concerning the accident by WVDHSEM. Assistant Inspector at Large, Mike Pack, issued a verbal control order to the mine at 5:42 p.m. in accordance with W. Va. Code Section 22A-2-68 to prevent further injuries and to preserve the accident scene. A joint investigation was initiated by WVOMHST, the Mine Safety and Health Administration (MSHA), and Mingo Logan Coal, LLC, Mountaineer II Mine company representatives.

DESCRIPTION

The series of events leading up to this accident began on Saturday October 30, 2021. At approximately 4:00 p.m., Electricians Billy Hunt, William Gray and Garrett Lambert entered underground via the elevator, to go to the Alma Mains section to work on the No.4 continuous miner. They retrieved the No.7 EMU (The same EMU that would later be involved in the accident with Mr. Wallen) and loaded their tools on it. After traveling about five breaks, the rear tire slid off the rail. This is not uncommon in a turn, but when it did, they noticed that the rear tire was rubbing the spring. They thought it might have a broken spring, so they unloaded their tools and retrieved another ride and proceeded to the Alma Mains section. Later that evening, the shift foreman, Mr. Carl Hitchcock, came to the section and asked Mr. Hunt why he did not have the No.7 EMU. Mr. Hunt explained that he thought the No.7 EMU may have a broken spring or that something may be wrong with the rear-end. Mr. Hitchcock stated that he would try to take it outside to the shop. Sometime between 8:00 p.m. and before 11:00 p.m., Mr. Hitchcock and Mr. Michael Ramey brought the No.7 EMU up the slope to the surface and Mr. Ramey took the No.7 EMU to the shop, washed it, and put it on charge. They finished their shift at approximately 11 p.m. At 12:01 a.m. on Sunday, October 31st, Mr. Hitchcock sent a group e-mail to company representatives that stated, "Brought EMU 7 to shop, needs rear brake work and rear springs seems broke or something."

On Sunday October 31, 2021, the third shift fire bosses, Shaun Gillispee, Nick Bishop, and Jacob Bell, came in at approximately 7:00 p.m. to get ready to fire boss the mine. The elevator was down so they had to enter in down the slope. At approximately 8:00 p.m., Mr. Gillispee, Mr. Bishop and Mr. Bell retrieved the No.7 EMU and started down the slope. Once they started down the slope, they noticed that the ride was not holding back like it normally does. The operator (Mr. Gillispee) applied the foot brake. It slowed them down but would not stop the EMU. He then applied the park brake. This also slowed them down but would not stop the EMU. When they arrived at the bottom of the slope, they were able to get it stopped and attained a rail ride and proceeded to fire boss the mine. When they were finished fire bossing the mine, they got back on the No.7 EMU and started up the slope toward the surface. About halfway up the slope the ride stopped tramming and started rolling backwards. The two passengers (Mr. Bishop and Mr. Bell) jumped off and the operator (Mr. Gillispee) steered the ride into the rib. They walked up the slope to the surface and reported the condition to the 3rd shift foreman, Kyle Brown. Mr. Brown directed that the No. 7 EMU be pulled up the slope with the slope car to clear the slope for the crews to go underground.

At approximately 1:00 a.m., November 1, 2021, Mr. Charlie White, an electrician working in the shop, noticed the No.7 EMU sitting at the top of the slope and when he checked it, he thought that the batteries were depleted of charge and had the warehouseman use the forklift to take it to the shop. Sometime later, he noticed that it was not taking charge and found a battery lead burnt into. Mr. White replaced the battery lead and put it back on charge. At approximately 7:00 a.m., the No.7 EMU was moved out of the shop to a location behind the elevator to free up room in the shop.

On Monday, November 1, 2021, the evening shift started at 3:00 p.m. Mr. Wallen was the assistant evening shift chief electrician acting as the chief electrician on this day and had instructed Mr. Garrett Lambert and Mr. Steven Workman to work on a continuous miner in the shop. Sometime later, Mr. Wallen came by and stated "Guys I got to go under and take care of a few things. I will be back as soon as I can to help you all on the miner." At 4:56:03 p.m., the top slope camera shows Mr. Wallen entering the top of the slope operating the No.7 EMU. At 4:56:46 p.m., the bottom slope camera shows Mr. Wallen on the No.7 EMU crashing into a group of steel roof support beams located near the bottom of the slope. Mr. Oliver Walker, the hoist operator, was at the hoist watch building and had stepped out to chain some rail cars down and when he stepped back in, he noticed on the camera what looked like an EMU laying on its top, near the bottom of the slope and contacted the dispatcher to inform him. Mr. Adam Ooten, the dispatcher, looked at the camera at approximately 4:57:52 p.m. and contacted the shift foreman, Mr. Hitchcock, to come and look. After looking, Mr. Hitchcock got dressed and ran down the slope. Mr. Ooten contacted the motor operators, Mr. Kevin Johnson and Mr. Dusty Hunt, who were in by the bottom of the slope at the motor barn and instructed them to go to the bottom of the slope. At approximately 5:04 p.m., Mr. Johnson and Mr. Hunt arrived at the accident scene. Mr. Johnson went to check the condition of Mr. Wallen. Mr. Wallen was unresponsive, and a pulse could not be detected. Mr. Johnson instructed Mr. Hunt to get a chain ratchet to lift the ride up so they could get Mr. Wallen out from under the ride. At approximately 5:07:37 p.m., Mr. Hitchcock arrived on the scene followed by Mr. Workman and Mr. Lambert. Mr. Hitchcock checked for a pulse and could not detect a pulse. Mr. Johnson found a chain ratchet and proceeded to lift the ride off Mr. Wallen. By this time, Mr. Mike Deckard and Mr. Raun Parsley had arrived. Mr. Parsley assisted in lifting the ride off Mr. Wallen while Mr. Deckard assisted Mr. Hitchcock and Mr. Workman in pulling Mr. Wallen out from under the ride. At approximately 5:14 p.m., first aid (CPR) was initiated. Others that were dispatched to the accident scene were Mr. Austin Preece, Mr. Andrew Reynolds, Mr. Micah Mahon, and Mr. Aaron Browning. At approximately 5:34 p.m., the hoist car arrived on the bottom. Oxygen was administered at this time. Mr. Wallen was placed inside the hoist car. Mr. Hunt and Mr. Browning performed CPR on Mr. Wallen while traveling up the slope. They arrived at the top of the slope at approximately 5:49 p.m. Mr. Wallen was then placed in the ambulance that was

awaiting at the surface. At 5:50 p.m. Logan Emergency Ambulance Service Authority (L. E. A.S.A.) contacted MEDCOM and Mr. Wallen was pronounced deceased 6:00 p.m. by Dr. Young.

FINDING OF FACTS

1. The No.7 EMU, a four-man battery powered, rubber-tired four-wheeler, was being used as a personnel carrier on the slope.
2. The total slope is 1,536 feet long, on a 12% grade with an average height of 9 feet and an average width of 28 feet.
3. The No.7 EMU was brought to the surface on Saturday evening, October 30, 2021, and placed in the shop.
4. A group e-mail was sent by Mr. Hitchcock to company representatives on Sunday, October 31, 2021, at 12:01 a.m. stating "Brought emu No.7 to shop needs rear brake work and rear spring seems broke or something."
5. The 3rd shift fire boss crew (three men) developed brake issues while traveling down the slope on the No.7 EMU on Sunday night, October 31, 2021.
6. The No.7 EMU was not properly tagged out when a dangerous operating condition was found as required in Title 36-Series 18-Section 4.1 of the West Virginia Code of State Rules.
7. Mr. Wallen was assistant evening shift Chief electrician acting as Chief electrician on Monday, November 1, 2021.
8. Mr. Wallen traveled approximately 1,356 feet down the slope in approximately 43 seconds before impacting steel support beams, according to the time stamp on the slope camera.
9. The left rear wheel bearing was extremely worn on the No.7 EMU.
10. The left rear brake caliper had been removed from the brake rotor and was found attached to the frame on the No.7 EMU by a cable tie.

CONCLUSION

On Monday, November 1st, 2021, Mr. Brian Wallen was fatally injured when he lost control of the No. 7 EMU he was operating, collided with a set of steel roof support I-beams at the bottom of the slope and the No. 7 EMU rolled, landing upside down, entrapping Mr. Wallen.

ENFORCEMENT ACTION

The following enforcement actions were taken as a result of the investigation.

A non-assessed control order was issued in accordance with Chapter 22A, Article 2, Section 68 of the West Virginia Code to prevent further injuries and to preserve the accident scene.

There were eleven (11) violations and four (4) individual personal assessments (IPA) issued as a result of the investigation. Eight (8) of the violations were regularly assessed and three (3) were recommended for special assessment.

The following violations were recommended for special assessment.

Violation Special Assessment Title 36 Series 18 Section 4.1

On October 31, 2021, the operator of the No. 7 EMU rubber-tired personnel carrier along with two passengers traveled down the slope and the No. 7 EMU could not be stopped by applying the service or park brakes. The No. 7 EMU's electric dynamic braking system was also not holding back as it normally would. After arriving at the bottom of the slope, the operator and two passengers parked the personnel carrier and took a rail ride and proceeded to fire boss the mine. The operator and the two passengers failed to promptly report the defects and remove the No. 7 EMU from service as required by the above rule. After they completed their firebossing duties, they returned to the bottom of the slope and attempted to ride the No. 7 EMU up the slope. Approximately halfway up the slope, the No. 7 EMU stopped tramming and started rolling backwards. The two passengers jumped off of the ride and the operator was able to steer the personnel carrier into the rib and get it stopped. The operator and the two passengers walked up the slope to the surface and reported the defects to the 3rd shift foreman. The No. 7 EMU was not tagged out of service as required by the above rule. After being taken to the surface and not having brakes repaired, the No. 7 EMU was later used and involved in a fatal crash while traveling down the slope. The above violation of a health and safety rule was of a serious nature and involved a fatality.

Violation Special Assessment Title 36 Series 8 Section 4.1

On October 31, 2021, the immediate supervisor failed to examine or have examined, the No. 7 EMU rubber-tired personnel carrier after being notified of the brakes failing to stop the vehicle

while traveling down the slope and that the dynamic braking was not holding the vehicle back like normal. After being notified of the unsafe condition and not having the brakes examined for all alleged defects or repaired before allowing it to be made available for operation, the No. 7 EMU was later used despite its unsafe condition and involved in a fatal crash while traveling down the slope. The above violation of a health and safety rule was of a serious nature and involved a fatality.

Violation Special Assessment Title 36 Series 18 Section 4.1

On November 1, 2021, the agent of the operator failed to comply with the above article of mining law. During an investigation involving a fatality, it was found that on the No. 7 EMU rubber-tired personnel carrier the driver's side rear brake caliper was not bolted in the intended operable position. The brake caliper was found tied to the machine frame with a zip tie. This unsafe condition existed on the No. 7 EMU which was involved in a fatal crash while traveling down a slope. The above violation of a health and safety rule was of a serious nature and involved a fatality.

ACKNOWLEDGMENT

The West Virginia Office of Miners' Health, Safety and Training acknowledges the cooperation of the employees and management of Mountaineer II mine, James Fogartie and Eric Guthrie with Pillar Innovations and the Mine Safety and Health Administration during the process of this investigation.

RECOMMENDATIONS



Josh Jackson
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December 1, 2021

Mr. Brian Dotson
MSHA District Manager's Office
4499 Appalachian Highway
Pineville, WV 24874

Mr. Benjamin Hamilton
West Virginia OMHS&T
830 Virginia Avenue
Welch, WV 24801

RE: Actions to Prevent Reoccurrence
Use of Electric Mine Utility (EMU) Vehicles
Mountaineer II Mine, MSHA ID NO. 46-09029 & State ID NO. U-5031-97

Dear Mr. Dotson & Mr. Hamilton:

Mingo Logan is providing a list of actions to prevent the reoccurrence of a serious injury to any employee while operating an Electric Mine Utility (EMU) vehicle. Please find below these action items:

1. Pillar Innovations will come onsite to actively participate in the inspection and testing of the EMU vehicles. This will be conducted prior to making any repair on the EMU vehicles. The intentions for this are to provide more thorough training with the current condition of each EMU vehicle, leading to a more "hands on" approach. MSHA and WVOMHST will be notified beforehand to afford the agencies the opportunity to be present for observation of the inspections and testing.
2. Pillar Innovations will conduct a training session for select maintenance personnel on Task Training for proper vehicle operation as well as maintenance and repair of the EMU vehicles. This will be a "Train the Trainer" type of session for initial training of the select personnel. Doing so will allow branching out for proper task training on maintenance/repair among maintenance personnel and proper operation for those authorized to operate the EMU vehicles.
3. No self-propelled mobile equipment will be operated on the surface slope. If such equipment is to be brought to the surface for maintenance and repair, the equipment will be loaded onto a rail-mounted flat car or equivalent transport carrier using a forklift and then transported outside. These procedures will also be followed when the equipment is to be transported from the surface back into the mine (underground). This procedure will be made part of the mine's comprehensive safety plan.

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A subsidiary of Arch Resources, Inc.
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4. Prior to operation, all personnel carrier equipment shall have a pre-operational examination completed and recorded to ensure the equipment is in proper working condition. This procedure will be made part of the mine's comprehensive safety plan.

A miners' representative has been notified and a copy of this letter has been posted on the mine bulletin board. Your attention and approval are appreciated.

Sincerely,

A handwritten signature in black ink that reads "Joshua P. Jackson".

Joshua P. Jackson

Mingo Logan Coal LLC
A subsidiary of Arch Resources, Inc.
Mountain Laurel Complex
State Route 17, P.O. Box E
Sharples, WV 25183
(304) 369-7500
archrsc.com

MINE INFORMATION

COMPANY Mingo Logan Coal Co., LLC

MINE NAME Mountaineer II Mine

WV PERMIT No. U00503197 MSHA PERMIT No. 46-09029

ADDRESS 1 Mountain Laurel Dr. Sharples WV, 25183

COUNTY Logan PHONE No. 304-369-7500 DATE PERMIT ISSUED September 23, 2004

WORKING STATUS Active LOCATION SHARPLES, WV NON-UNION X

DAILY PRODUCTION 5,500 TONS ANNUAL PROD. TO DATE 1.1 MIL. TONS

TOTAL EMPLOYEES 334 NUMBER OF PRODUCTION SHIFTS 3 SHIFTS

COAL SEAM NAME & THICKNESS Alma and No. 2 Gas LOST TIME ACCIDENTS 9

ACCIDENT INCIDENT RATE 2.67 TYPE OF HAULAGE Conveyor Belts

WVOMHST INSPECTOR Stephen Evans, Mark Keyser (Electrical) and Joe Raines

DATE OF LAST INSPECTION 10/28/2021

WVOMHST NOTIFIED BY WVEMD NOTIFICATION TIME 5:30 p.m.

CMSP ANNIVERSARY DATE N/A CMSP CONTACT PERSON N/A