Report of Fatality
Electrocution Accident
Underground Coal Mine
September 17, 2019

Panther Creek Mining, LLC
American Eagle Mine
Permit Number U00000391H

Region IV Office
550 Industrial Drive
Oak Hill, West Virginia 25901
McKennis P. Browning, Inspector-at-Large

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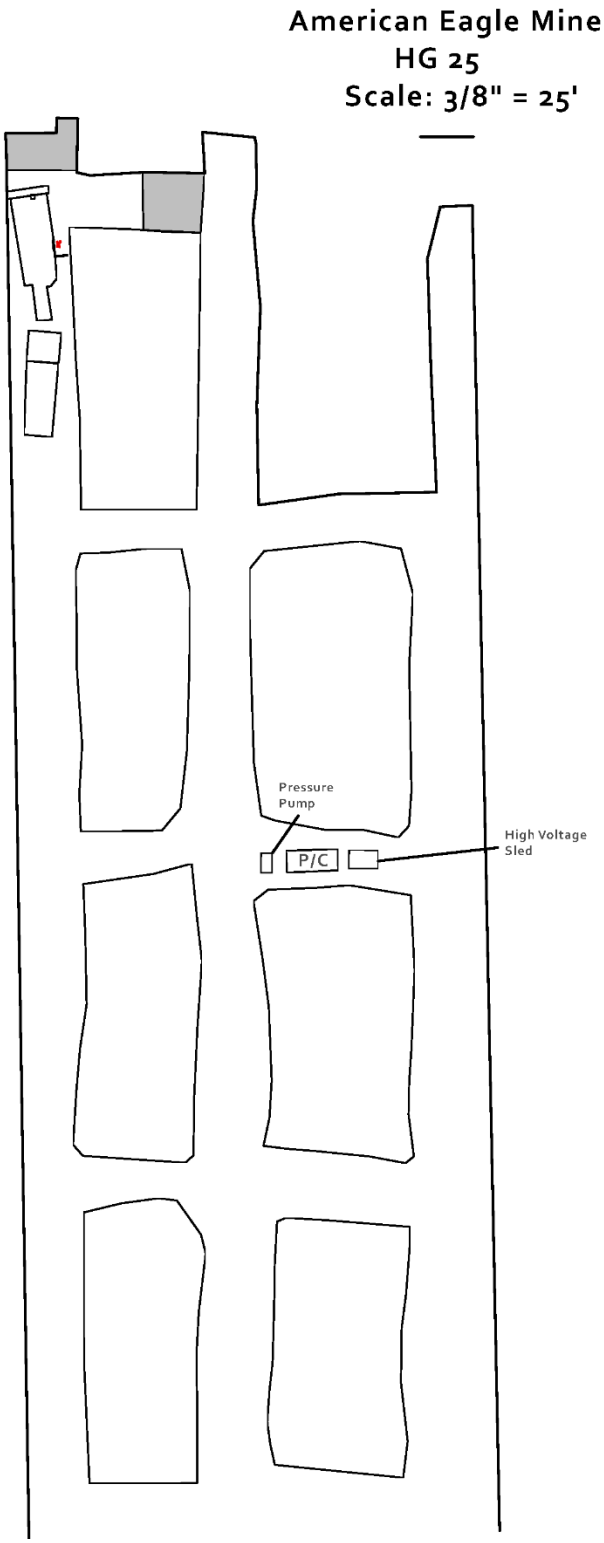
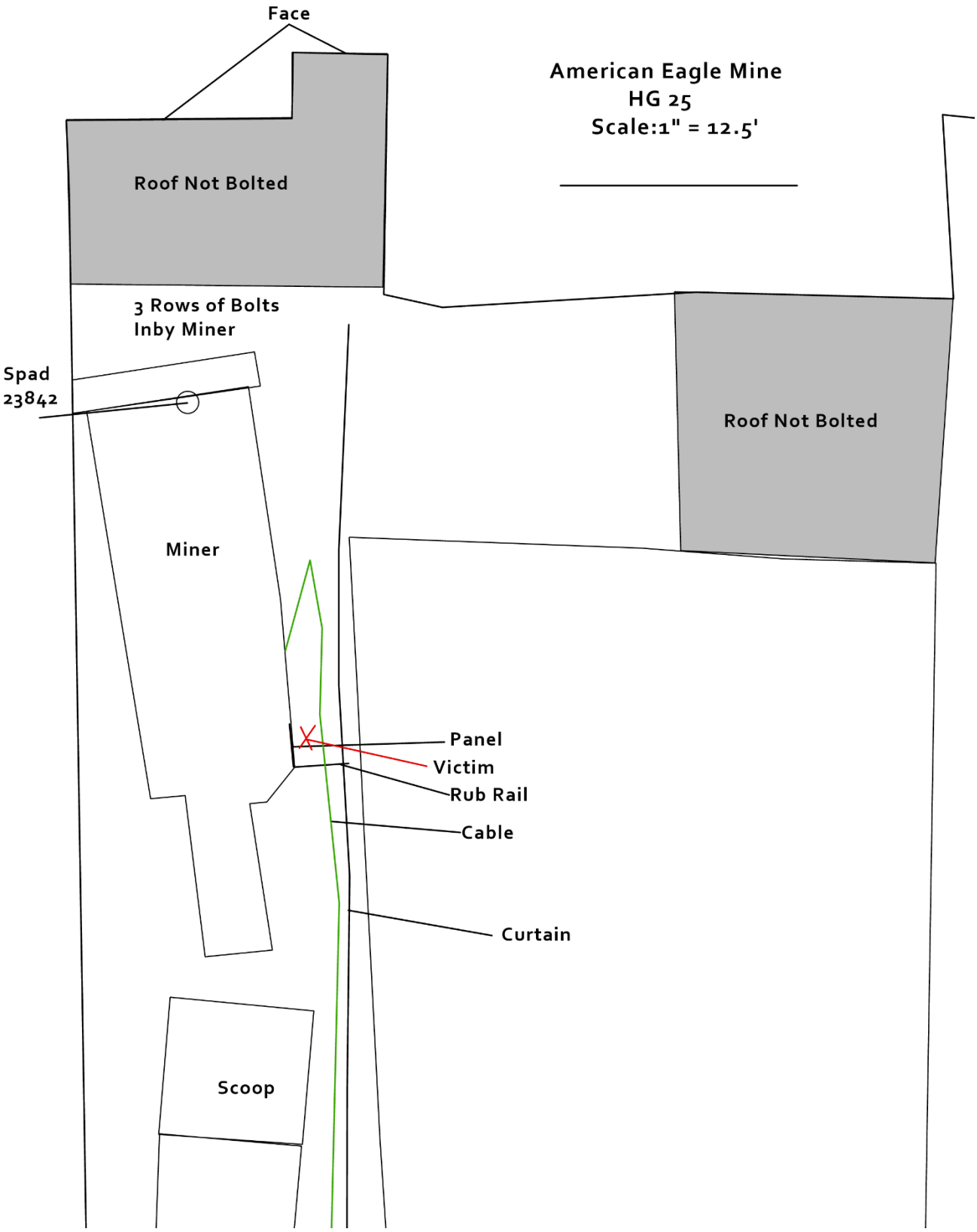
DRAWING #1


American Eagle Mine
HG 25
Scale: 3/8" = 25'
Pressure Pump
P/C
High Voltage Sled

DRAWING #2

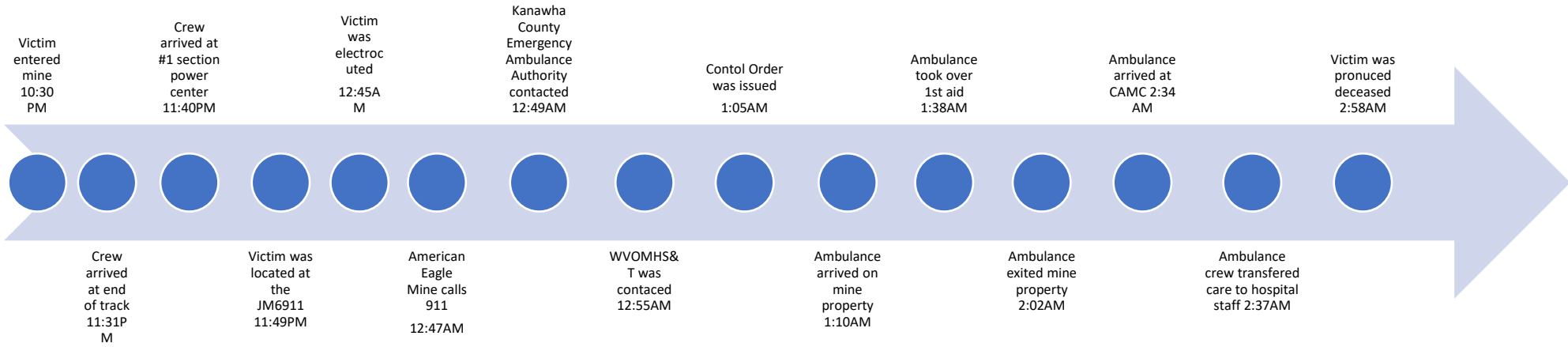

Face
American Eagle Mine
HG 25
Scale:1" = 12.5'
Roof Not Bolted
3 Rows of Bolts
Inby Miner
Spad
23842
Roof Not Bolted
Miner
Panel
Victim
Rub Rail
Cable
Curtain
Scoop

September 17, 2019

Panther Creek Mining, LLC

American Eagle Mine

Accident Timeline



REPORT OF FATALITY

ELECTROCUTION ACCIDENT INVESTIGATION
PANTHER CREEK MINING, LLC
AMERICAN EAGLE MINE
WV PERMIT NUMBER U00000391H

GENERAL INFORMATION

This report is based on an investigation conducted in accordance with Title 36, Series 19, Section 6 of the West Virginia Code of State Rules.

Panther Creek Mining, LLC was permitted to operate the American Eagle Mine on October 28, 2015. The mine employs (363) people on three shifts. The mine utilizes a longwall mining system on one section and continuous miners on three sections to produce coal from the Eagle Seam. One continuous miner section is a super section equipped with two continuous miners and the other two sections are equipped with one continuous miner per section. The miner sections work three shifts, two production shifts and one maintenance shift. The miner sections work a traditional schedule consisting of five working days one week and six the next. The longwall section works an alternative schedule.

Mr. Steven V. Keeney, a certified electrician, from Sylvester, WV, started his employment at the American Eagle Mine on February 23, 2011. Mr. Keeney received a class 26 certified electrician low/medium/high voltage certification on August 19, 2005 while employed at a surface mining operation. The last record of electrical retraining for Mr. Keeney was dated April 23, 2018 which is current and up to date.

Mr. Keeney was electrocuted on September 17, 2019, at 12:45 a.m. The accident occurred while Mr. Keeney was working on the JM6911 continuous mining machine that was parked under survey spad number 23842 in the number one entry on the number one section.

The Kanawha County Metro (911) received a call from the American Eagle Mine at 12:47 a.m. Kanawha County Metro contacted Kanawha County Emergency Ambulance Authority at 12:49 a.m. Bobbie Harper, Assistant Inspector-at-Large, for the West Virginia Office of Miners' Health, Safety and Training (WVOMHS&T) Oak Hill, Region Four office was notified of the accident by Homeland Security at 12:55 a.m. An investigation Control Order, Title 36, Series 19, Section 7.1, was issued verbally by Bobbie Harper at 1:05 a.m. to Mr. Anthony Sparks, Safety Tech at the American Eagle Mine when the accident occurred. Mr. Bobbie Harper contacted Mr. McKennis Browning, Inspector-At-Large immediately after issuing the verbal control order.

DESCRIPTION

The third shift crew that works on the #1 Section started the shift at 10:30 p.m. on September 16, 2019. Tracking logs indicate the crew arrived at the bottom of the shaft at 10:40 p.m. According to tracking logs the crew arrived at the end of the main line track at 11:31 p.m. The end of main line track is 2100 feet from the #1 Section loading point. The third shift crew was walking to the section when they met the evening shift crew traveling from the section toward the track riding the Mac 12 rubber tire mantrip which is the emergency ride. According to tracking logs the third shift crew arrived at the section power center at 11:40 p.m.

According to tracking logs three men (Steven Keeney, Justin Niday, Stephen Ramsey) were located at the JM6911 continuous mining machine at 11:49 p.m. Mr. Robert Baldwin and Mr. Scott Hendricks were also at the continuous mining machine but the tracking logs do not show the location of either individual at any time during their shift.

At the time the accident occurred, Mr. Steven Keeney was working in the 995-volt panel on the right operator's side of the JM6911 continuous mining machine. Mr. Keeney was in the process of determining why the scrubber motor would not start on the JM6911 continuous mining machine. Mr. Scott Hendricks (Maintenance Foreman) had been tightening the crawler chain on the off side of the JM6911 continuous mining machine and was walking toward the rear of the continuous mining machine. Mr. Robert Baldwin (Electrician) was on the operator side of the JM6911 continuous mining machine, approximately ten feet inby the victim. Mr. Justin Niday (Electrician) and Mr. Stephen Ramsey (Apprentice Electrician) had just completed shimming the conveyor chain on the JM6911 continuous mining machine and were by the scoop respectively putting tools away and looking for a rag. Mr. Zack Bowles (Roof Bolter Operator/EMT) and Mr. George Hignite (Roof Bolter Operator) were at the roof bolting machine one break outby the JM6911 continuous mining machine. Mr. Kevin Young (Section Foreman), Mr. Christopher Franklin, Mr. James Eplin and Mr. Kody Young (Move Crew) were loading structure outby the loading point of the section at #9 Break. Mr. Adam Vest (Greaser) was unloading oil into an insert located at the #18 Break.

When the accident occurred, Mr. Niday, Mr. Hendricks and Mr. Ramsey heard a buzzing sound. Mr. Ramsey saw smoke and Mr. Baldwin heard Mr. Keeney say, "KNOCK THE BREAKER." When Mr. Baldwin tripped the breaker on the JM6911 continuous mining machine 995-volt panel, Mr Keeney fell backwards onto the mine floor. After seeing Mr. Keeney on the mine floor, Mr. Niday flagged, and Mr. Hendricks shouted out for EMT-M Zack Bowles and Mr. Hignite to come and assist. Mr. Ramsey went to the Section Power Center and installed a lock and tag on the energized JM6911 continuous mining machine disconnecting device. Mr. Baldwin and Mr.

Hendricks moved the victim to a drier location. Mr. Vest and Mr. Niday went in search of the Section Foreman and Mr. Hignite went to the mine phone and called for an ambulance. Mr. Vest located the belt crew working outby the section loading structure and told Kody Young someone was hurt bad; he relayed the message to Kevin Young. Kody Young went to retrieve the Emergency Ride, Mr. Franklin went to the track to assure the rail mantrip was ready and the road to the elevator was clear. Kevin Young went to the accident scene. When Mr. Bowles arrived at the victim, he was unresponsive. He instructed Mr. Baldwin to start CPR and Mr. Hendricks assisted by keeping his airway open while Mr. Bowles went to the section EMT box located at the section Power Center, to retrieve the AED. At that time, he met Mr. Kevin Young, an additional EMT. Mr. Bowles and Mr. Kevin Young arrived back at scene of the accident and placed the AED on the victim, and it advised shock. The AED did administer one shock and a pulse was detected. During this time, Mr. Niday and Mr. Hignite retrieved additional first aid equipment. Mr. Kody Young arrived on the section with the Emergency Ride. The crew loaded the victim on the Emergency Ride and transported him to the end of the track while performing CPR. At the end of the track they loaded Mr. Keeney on a rail mounted mantrip and transported him to the elevator. Mr. Franklin drove the mantrip to the elevator. During transport to the elevator, Mr. Bowles and Mr. Eplin performed chest compressions while Mr. Kody Young used the re-breather while being assisted by Mr. Hignite. Upon arrival at the elevator the victim was transported by elevator to the surface where the ambulance personnel were waiting. The ambulance crew received the patient and took over first aid care.

The Kanawha County Emergency Ambulance Authority dispatched an ambulance crew at 12:48 a.m. The ambulance arrived on the mine property at 1:10 a.m. The ambulance crew took over first aid treatment for the victim at 1:38 a.m. The ambulance exited the mine property at 2:02 a.m. in route to CAMC Memorial Hospital. The ambulance arrived at the hospital at 2:34 a.m. Ambulance crew transferred care of patient to hospital staff at 2:37 a.m. The patient was pronounced deceased later by hospital personnel at 2:58 a.m.

FINDINGS OF FACT

1. Mr. Keeney was a Certified Electrician, Class 26 Low/Medium/High Voltage. Issued on August 19, 2005. Certification Number 3-482.
2. Mr. Keeney last attended electrical retraining on April 23, 2018.
3. Mr. Keeney last attended annual refresher on February 16, 2019.

4. Mr. Keeney was a class 06 Certified Underground Miner. Issued on 1/26/2011. Certification Number 3-17753.

5. Mr. Keeney was a class 11 Certified Surface Mine Foreman. Issued on 10/12/2004. Certification Number S-3817-04.

6. The accident occurred at the JM6911 continuous mining machine located at survey station spad number 23842 in the number one entry on the #1 Section. This continuous mining machine is powered by a 995 Volt trailing cable.

7. The mine floor was wet and muddy in the area where the victim was working.

8. Upon arrival the WVOMHS&T investigators found that Mr. Keeney had been fatally injured while working in the energized 995 Volt panel toward the rear of the continuous mining machine on the operator's right side.

9. According to testimony under oath, the panel lid was open and the swing out panel had been swiveled out of the panel box when the accident occurred.

10. According to testimony under oath, the men at the scene swiveled the swing out panel back into the panel and closed the panel lid to access and treat the injured victim and allow expedited removal of the victim from the scene.

11. According to testimony under oath, Mr. Keeney was working in the energized 995-volt panel without protective electrical gloves or multimeter to find out the reason the scrubber motor on the continuous mining machine would not start.

12. Mr. Keeney was working on an energized panel on the JM6911 continuous mining machine when he contacted an energized component inside the medium voltage panel.

13. Tools found where the accident occurred were a 6-inch screwdriver, a 12-inch adjustable wrench and three half-inch drive sockets.

14. There were no protective electrical gloves or multimeter at the accident scene.

15. According to testimony additional tools were picked up at the accident scene after the accident occurred but prior to the start of the investigation.

16. The panel where the accident occurred is located on the right side of the machine.

17. According to testimony under oath, at the time the accident occurred three other jobs were being performed on the JM6911 continuous mining machine other than Mr. Keeney trying to determine why the scrubber motor would not start.

    I. Maintenance foreman was on the offside of the machine tightening the crawler chain.

    II. One electrician and the apprentice electrician were at the rear of the machine tightening the conveyor chain.

    III. One electrician was checking the shields on the cutter head on the right side of the machine.

18. The energized disconnecting device (cable coupler/cathead) that supplies power to this machine which is located at the Section Power Center was not locked out and suitably tagged by the certified person performing work.

19. The safety devices in the circuit supplying power to the continuous mining machine worked properly when tested post-accident. Phase to ground voltage was 650 Volts AC.

CONCLUSION

The victim was performing electrical work in the medium voltage controller panel on the operator's right side of the JM6911 continuous mining machine. The power was not de-energized from the continuous miner nor was it properly locked out and suitably tagged at the power source by a qualified person/certified electrician performing work. The victim was not using protective electrical gloves or a multimeter according to testimony and evidence found at the accident scene.

ENFORCEMENT ACTION

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

A non-assessed control order was issued in accordance with Title 36, Series 19, Section 7.1 of the West Virginia Mining Rules and Regulations to preserve evidence following the accident.

One violation is recommended for special assessment due to working on energized equipment. 22A-2-40(19) states: No electrical work shall be performed on low-, medium-, or high-voltage distribution circuits or equipment, except by a qualified person or by a person trained to perform electrical work and to maintain electrical equipment under the direct supervision of a qualified person. Disconnecting devices shall be locked out and suitably tagged by the persons who perform such work, except that in cases where locking out is not possible, such devices

shall be opened and suitably tagged by such persons who installed them, or, if such persons are unavailable, by persons authorized by the operator or his agent.

Based on eyewitness testimony and evidence during the fatal accident investigation, it was discovered that the victim was working on an open and energized panel on the JM6911 continuous mining machine without locking out and suitably tagging the disconnecting device at the source.

A total of 19 violations have been issued during the investigation which were not contributory to the fatality.

RECOMMENDATIONS

In accordance with Chapter 22A, Article 1, Section 36 (b). of the West Virginia Code of State Rules, modifications have been made to Panther Creek LLC, American Eagle Mine Comprehensive Mine Safety Program following the investigation of a fatal accident involving Mr. Keeney that occurred September 17,2019. The modifications shall include, but not limited to, the following:

1. Miners will be trained on the addendum to the Comprehensive Mine Safety Plan and documented on a company form, Electricians will be documented on a MSHA 5000-23 form.
2. Miners identified working on energized electrical circuit or electrical circuits will be subject to discipline.
3. When possible, electricians will move the equipment to a favorable location.
4. Electricians will notify their section foreman or immediate supervisor before performing troubleshooting on energized circuits.
5. Defining troubleshooting and testing as determining voltages and current only.
6. Work is not permitted on energized circuits and is defined as adjustment, repair, replacement or modifications of components.
7. That the operator revises and updates the apprentice electrical training program.
8. It's recommended that the operator schedule a four-hour electrical training class with a third-party electrical instructor. The emphasis of the class to be, lock and tag procedures, trouble shooting, and work performed on electrical equipment.

ACKNOWLEDGEMENT

The West Virginia Office of Miners' Health, Safety and Training acknowledges the cooperation of employees and management of Panther Creek Mining LLC, American Eagle Mine and the Mine Safety and Health Administration during this investigation.

APPENDIX

- Mine Information Sheet
- Victim Information Sheet

MINE INFORMATION

COMPANY Panther Creek Mining, LLC

MINE NAME American Eagle Mine

WV PERMIT U00000391H

ADDRESS PO Box 99 Dawes, WV 25054

COUNTY Kanawha

DATE PERMIT ISSUED October 28, 2015 WORKING STATUS Active

LOCATION Near Dawes , West Virginia

UNION _____ NON-UNION √

DAILY PRODUCTION 14,300 Raw Tons

ANNUAL PRODUCTION TO DATE 2.985 Million Raw Tons

TOTAL EMPLOYEES 363 NUMBER OF SHIFTS 3

NAME OF COAL BED Eagle Seam

SEAM THICKNESS 30 to 60 Inches

ACCIDENT INCIDENT RATE 3.19 LOST TIME ACCIDENTS 9

TYPE OF HAULAGE Continuous and Longwall

WV OMHST INSPECTOR Chris Dawson

DATE OF LAST INSPECTION 9/16/2019

NOTIFIED BY Steve Doss/ Mine Dispatcher

TIME OF NOTIFICATION 12:49 AM on 9/17/2019

CMSP – ANNIVERSARY DATE N/A

CMSP – CONTACT PERSON Joey Athey