

**UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
COAL MINE SAFETY AND HEALTH**

**REPORT OF INVESTIGATION
Underground Coal Mine
Fatal Fall of Face Accident
January 29, 2006**

**Aberdeen Mine
Andalex Resources, Inc.
Price, Carbon County, Utah
ID No. 42-02028**

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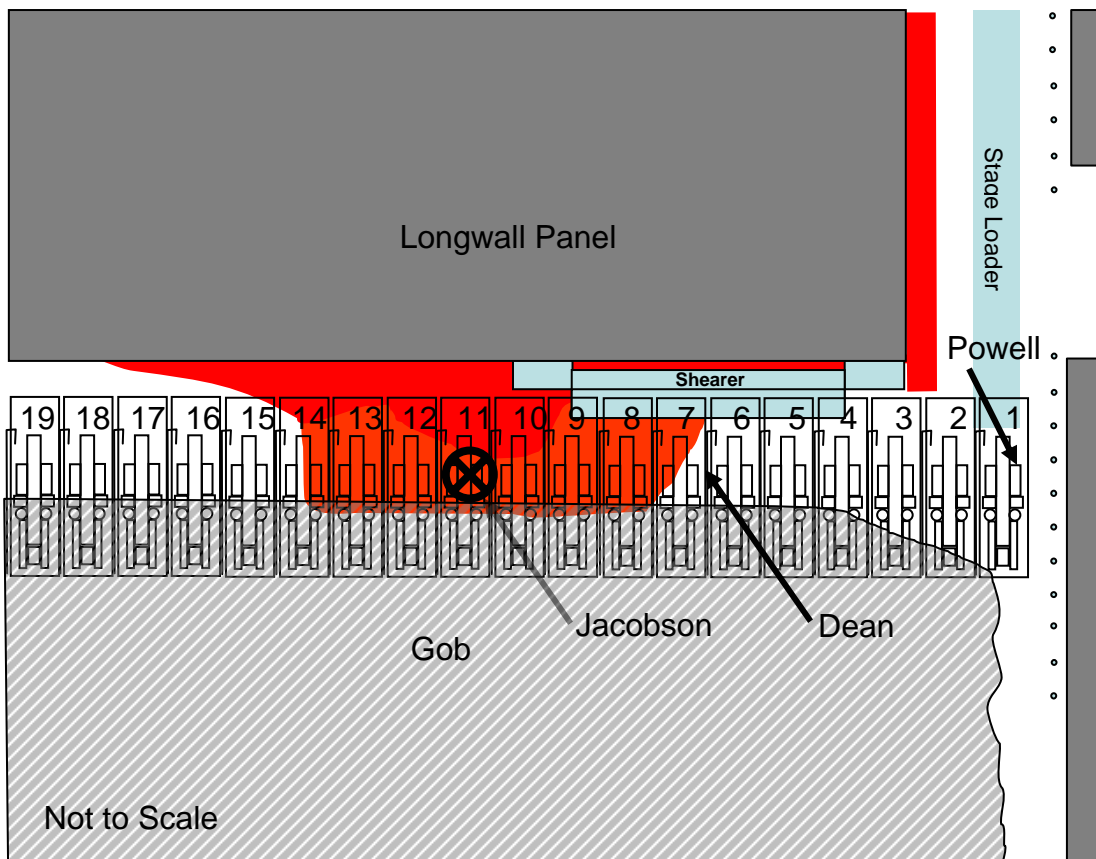
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FATAL FALL OF FACE
ABERDEEN MINE (ID NO. 42-02028)
ANDALEX RESOURCES, INC.
PRICE, CARBON COUNTY, UTAH
JANUARY 29, 2006

SKETCH OF ACCIDENT SITE
12th EAST LONGWALL (PANEL NO. 7)



Note: Red area designates extent of outburst

OVERVIEW

On Sunday, January 29, 2006, at 11:00 p.m. Shane Jacobson, age 37, a longwall propman who was operating the tailgate drum of the shearer, was fatally injured when a coal bounce/outburst occurred and pushed him into the No. 11 shield legs on the 12th East longwall face. Jacobson was observing the headgate shearer operator cut out the longwall face at the headgate when the accident occurred. He had been re-assigned from his normal propman duties to operate the tailgate shearer drum for the final three hours of the shift. The accident occurred shortly before the end of the shift.

Prior to the accident, a cut was made from the tailgate to the headgate with the headgate drum cutting near the roof and the tailgate drum floating. When the cut was completed, the shearer was taken to about No. 40 shield to make a taper cut back to the headgate to catch up the lagging headgate end of the face. As the shearer entered the headgate area, Jacobson remained behind the operation at No. 11 shield. As the headgate drum operator was completing the cutout, a coal outburst from a bounce on the longwall face propelled coal over the face conveyor into the shield walkway area, striking Jacobson and causing fatal head injuries.

The accident occurred because barriers/guards between the coal face and walkway area were not adequately installed and used in a manner to protect miners from hazards related to coal outbursts on the longwall face. The operator had not identified and implemented any techniques to control high stress on the longwall face. Lacking means to control this stress, adequate procedures and measures for controlling the effects of outbursts had not been implemented in high stress areas such as at the longwall headgate. Guidelines regarding safe positioning of miners while cutting coal did not specifically prohibit miners from working at the victim's location when the accident occurred.

GENERAL INFORMATION

The Aberdeen Mine, owned and operated by Andalex Resources, Inc. (Andalex), is an underground bituminous coal mine located approximately 10 miles northeast of Price, Carbon County, Utah. Operations began in 1989, with some interruptions since that time. The principal officers for Andalex and the Aberdeen Mine at the time of the accident were Samuel C. Quigley, Vice President; Laine Adair, General Manager; James Poulson, Safety Manager; Bert Peacock, Safety Director; Randy Perri; Mine Manager, and Steven Richens, Longwall Coordinator

In 2002, the Aberdeen Mine was placed on a 103(i) status with spot inspections required every five working days. The mine liberates 4,005,808 cubic feet of methane gas in a 24-hour period. Coal is mined from the Aberdeen coal seam, which is also known as the A seam. The Aberdeen seam ranges in thickness from 4 to 13 feet. The maximum projected overburden in the mine is 3,000 feet.

The mine operates two advancing continuous miner development sections and one retreating longwall section. The longwall panels are developed with two entries on each of the gates. Entries are on 50-foot centers and crosscuts on 120-foot centers. A barrier pillar is left between panels.

The mine worked three, eight-hour shifts, producing coal seven days a week on two eight-hour shifts from 7:00 a.m. to 3:00 p.m. and 3:00 p.m. to 11:00 p.m., with one eight-hour maintenance shift from 11:00 p.m. to 7:00 a.m. Production crews changed-out on the section. The mine employed 138 miners with 128 underground and produced 1,548,020 tons in 2005.

Prior to the accident, the last Mine Safety and Health Administration (MSHA) regular inspection was completed on December 15, 2005. The non-fatal days lost (NFDL) incidence rate for the mine in calendar year 2005 was 3.40. The National incidence rate for underground coal mines in 2005 was 5.21.

DESCRIPTION OF ACCIDENT

On Sunday, January 29, 2006, the 12th East longwall afternoon shift production crew, supervised by Jed R. Gordon, Section Foreman, began work at 3:00 p.m. While traveling to the section, the crew discussed the bounces and coal outbursts that were occurring on the longwall. Kyle Dean, Shearer Operator, initiated the discussion to remind crew members to be cautious.

The person normally assigned to operate the headgate shearer drum did not report to work. Gordon assigned Dean to the headgate drum and David Powell, Beltman and Mine Examiner, to the tailgate drum. Powell had previous longwall shearer operating experience. Other crew members included Shane Jacobson, Propman and victim; Justin Barrington, Propman; Mathew England, Headgate Operator; and Thomas Sandoval, Mechanic.

The afternoon shift crew arrived on the section; made a "hot seat" change out with the day shift crew and commenced normal mining operations on the longwall. During the shift, a significant bounce/outburst occurred at approximately 5:00 p.m. at the headgate. This occurred while the headgate was being cut out by the shearer. This event did not interrupt mining and did not cause any injuries.

At 8:00 p.m., Powell left the longwall face to perform his assigned preshift examination. Jacobson replaced Powell on the tailgate shearer drum. After this change, one complete pass was made on the longwall face without incident. The shearer was then taken to approximately No. 40 shield and a taper pass was taken back to the headgate to straighten the longwall face. While this was being done, Powell returned to the longwall shortly before 11:00 p.m. and Jacobson asked if he wanted the remote control back so Powell could finish the pass. Powell told him it was not worth changing for the few minutes left in the shift so Jacobson continued as the tailgate shearer operator. The crew planned to end their shift as soon as the headgate was cut out and the shearer was repositioned in the middle of the face. At this time, Dean operated the headgate shearer drum and was cutting into the headgate. Jacobson was positioned at No. 11 shield waiting for the headgate to be cut out. Powell returned to No. 1 shield to observe the mining operation.

As the cutout at the headgate was being completed, a bounce with coal outburst occurred. The outburst extended approximately 30 to 40 feet up the face and 40 feet from the corner down the headgate entry on the solid coal block. Coal from the face came over the face conveyor into the shield area from Nos. 7 to 14 shields.

Powell, seeing the extent of the outburst, went to check on Dean and Jacobson. He saw that Dean was alright, but found Jacobson seated on the toes of No. 11 shield and covered by debris to his waist. Dean went to the headgate area to shutoff electrical power and summon help. Powell, a first responder, checked Jacobson but found him to be unresponsive. He started cardio pulmonary resuscitation (CPR), but had difficulty in administering breaths. Other crew members provided assistance.

Jacobson was removed from the longwall face and transported to the surface. CPR was administered during transportation but was unsuccessful. Jacobson was placed in a Carbon County ambulance that was waiting. All further attempts of resuscitation were stopped and Jacobson was taken to Castlevew Hospital in Price, Utah, where he was pronounced dead. Time of death was fixed at 11:25 p.m., January 29, 2006, the time Jacobson was placed in the ambulance on the surface. Cause of death as indicated on the Certificate of Death was a blunt force injury of the head.

INVESTIGATION OF THE ACCIDENT

William M. Taylor, MSHA Field Office Supervisor, Price, Utah, was notified of the accident at approximately 12:27 a.m., January 30, 2006. Taylor instructed the mine to secure the location of the accident to prevent further injury pending an investigation by MSHA. MSHA personnel were dispatched to the mine. Dennis P. Boyack, Coal Mine Safety and Health Inspector, Price, Utah, arrived at the mine at about 1:45 a.m. and issued a Section 103(k) order to ensure the safety of persons at the mine until an investigation could be conducted and the area deemed safe. The MSHA accident investigation team arrived at the mine on January 31, 2006, and began the investigation (refer to Appendix A for a list of persons participating in the investigation). The accident scene was examined, measurements were taken, documents obtained, and witnesses interviewed. The investigation at the mine site concluded on February 1, 2006.

DISCUSSION

General

The Aberdeen Mine operates in the “A” or Aberdeen seam which varies from 4 to 13 feet in thickness. Overburden ranges up to 3000 feet and includes several major sandstone formations. Notably, the approximately 70- to 100-foot thick Kenilworth sandstone unit lies 25 to 40 feet above the seam. The strata between this sandstone and the Aberdeen seam include interbedded sandstones, siltstones, shales and a coal rider. The unnamed coal rider varies from 2 to 5 feet in thickness and ranges between 7 and 30 feet above the mined seam. Although the overlying Kenilworth seam has been mined extensively in the area, no previous workings are present either above or below the current mining areas in the Aberdeen mine.

Longwall mining at Aberdeen Mine began in December 1995 using “traditional” three-entry gates. Longwall panels are approximately 780 feet wide and up to approximately 8700 feet long. During extraction of Panel No. 2, a bounce/outburst occurred on November 14, 1996, which resulted in the death of a foreman near the tailgate. In January 1997, the remainder of that panel was abandoned and subsequent longwall mining has used independent gates for each panel separated by substantial barriers up to 600 feet wide. The independent gates are two-entry systems. Entries are driven 17 to 18 feet wide on approximately 50-foot centers creating a gate

pillar that, after rib sloughing, is nominally 30 feet wide. Crosscuts are mined on 120-foot centers. Typically, mined height is 9 to 9 ½ feet but occasionally is reduced to 6 ½ to 7 feet when a parting near the bottom of the coal seam becomes excessive.

The panel/barrier/panel design change in 1997 was made to address the outburst conditions that caused the November 14, 1996 accident. Shortly before the January 29, 2006 accident, Andalex, in an effort to minimize outburst occurrences, contracted an engineering consultant to study potential means of controlling outbursts in the Aberdeen Mine. The general concepts of de-stressing techniques (shot firing, liquid infusion, and auger drilling) were examined. The consultant found that de-stressing techniques have often had inconclusive results and present inherent safety risks because of the outburst-triggering potential when drilling into highly stressed areas. Due to these risks, the consultant did not recommend applying de-stressing techniques.

The accident occurred on the face of longwall Panel No. 7, which was located between the 12th East headgate entries and the 11th East tailgate entries. The panel is alternately referred to as the 12th East longwall. The 11th East tailgate entries were separated from the adjacent 10th East headgate entries of longwall Panel No. 6 by a 600-foot barrier pillar.

Roof Support

Primary roof support in the gate roads consists of 6-foot long, fully grouted, No. 8 (0.914 inch diameter) headed J-bar bolts installed 6 bolts per row with rows on 5-foot spacings. Outside bolts typically are installed within 1 foot of the rib. The bolts are installed with a 6-inch by 6-inch, grade 4, dome plate over 6-foot by 17-foot, welded wire mesh. The mesh is constructed using 0.192 inch diameter wire (approximately 94 ksi tensile strength) in a 4-inch square grid system with additional wires placed 2 inches from the edges for additional tear through resistance. In the headgate belt entry, 10-inch wide by 17-foot long metal straps (mats) also are installed with the primary bolts. Belt and monorail holders are installed with full length, primary bolts.

Typically, 10- to 14-foot long, 0.6-inch diameter, resin-anchored cable bolts are installed in cycle as supplemental support when the overlying coal rider approaches to within 7 feet of the mine openings. In this application, cables are installed four per row between each row of primary supports (i.e. 5-foot row spacing). These cables are installed through a 10-inch wide by 17-foot long, 14 gauge metal strap. Cable bolts also are spotted as needed to control suspect roof conditions such as those encountered on the margins of sandstone channels. Occasionally, polyurethane is injected to consolidate highly jointed areas.

The type and density of standing support varies in each of the entries that comprise the headgate and tailgate. Rocprops (35- to 45-ton units) are installed on approximately 3-foot spacings near the gate pillar ribline on the walkway side of the beltline. A tapered wood cap block (4 inches by 6 inches tapered to 2 inches by 6 inches by 24 inches long) is placed atop each prop prior to pressurization to about 1500 psi internal pressure using either longwall hydraulics and emulsion or a water pressure washer. Chain link fencing (6 or 7 feet high) is anchored behind the props to contain coal sloughed or bounced from the pillar ribs. On the opposite side of the belt, 6- to 8-inch diameter wood posts are installed on approximately 5-foot spacings near the rib. These

supports are intended to deter sloughed coal from accumulating ahead of the crawler tracks on the stage loader.

The headgate travel entry is supported with two rows of 24-inch diameter Burrell cans. The cans are placed on 4-foot centers down the entry to create a 5 ½-foot wide walkway. Cribs blocks are placed between the mine roof and the top of the cans and either wood wedges or a square steel bladder (typically 3 feet on each side) is used to preload the support. The bladder (referred to as a “Jack Pack” or “pillow”) is pressurized to between 150 and 450 psi using the section water line. Chain link fencing (6 or 7 feet high) is anchored behind the cans on each side of the entry to contain coal sloughed or bounced from the ribs. Active load provided by the bladders helps prevent the cans from toppling as ribs slough against the supports.

The tailgate entry adjacent to the barrier pillar is supported with two rows of 24-inch diameter Burrell cans on 4-foot spacings. One row of 36-inch diameter Burrell cans was used in the entry adjacent to the panel at the tailgate. These cans were spaced on 7-foot centers near the rib opposite the panel. Wood timbers (8 by 8 inches) were installed as needed (e.g. 5-foot spacings) near the panel rib as a precaution to control cutter roof damage.

Longwall Face

Support on the longwall face is provided by 139 DBT two-leg shields. The shields are 813-ton units that extend to 11 feet. Cylinders are equipped with burst valves rated at 1170 liters per minute. The longwall shearer is a Joy 4LS5 machine with memory cut capability. Shearer initiated shield control is available and automated shield batch control capabilities also are available in the event that serial communication with the shearer is interrupted.

The shearer is equipped with a 24-foot long deflector shield or sloughage plate that can be raised 20 inches above the top of the machine. This device deters sloughed or bumped coal from entering the walkway between the shearer and the shields. Expanded metal guards are attached to the armored face conveyor periodically along the walkway for the same purpose. The guard frames were fabricated using square metal tubing and covered with expanded metal. Each was approximately 5 feet wide and extended about 20 inches above the cable trough. Similarly, 5-foot wide by 5- or 6-foot long sheets of conveyor belt were suspended from the bottom of the shield canopies along the walkway. These belt guards were not attached or restrained at the bottom, but several had chains around the metal guard and the belt guard to hold the belting to the metal guard.

Accident Site

The longwall panel (headgate side) had progressed approximately 760 feet from the startup room when the fatal bounce occurred. Retreat mining on the panel began on December 6, 2005. Initially, the mined height on the face had been limited to 6 to 6 ½ feet due to the presence of a thick parting near the bottom of the coal seam. Mined height had been extended to approximately 9 feet for a distance of approximately 140 feet prior to the accident. Overburden in the accident area was approximately 2750 feet. The longwall gob appeared to be caving tight behind the shields to within 3 ½ shield widths of the headgate end. The gob had caved to within approximately 10 feet of the headgate pillar for a distance of at least 100 feet behind the shields.

In this area, the primary support, Rocprops and injected polyurethane, appeared to be keeping the roof intact.

At the time of the bounce, the longwall panel face was nearing crosscut No. 71 in the headgate. The face was nearly even with the inby rib of the crosscut. The immediate roof in this area was a hard clay shale. However, a sandstone channel was exposed in the roof above the stage loader for a distance of approximately 45 feet outby the face. In this location, the clay shale had fallen during development to the base of the channel. The channel was a hard, white, fine-grained sandstone of unknown thickness. Observations behind the No. 1 shield indicated that the unit was at least several feet thick and comprised layers 8 to 16 inches thick. Layers were separated by thin dark bands of shale or siltstone. Geologic logs from a gob ventilation borehole 800 feet away (on the tailgate side of the panel) indicate that the overlying Kenilworth sandstone was approximately 40 feet thick in this area.

During the investigation, the shearer was observed at the headgate end of the panel with both drums positioned near the floor. The tailgate drum was located near shield No. 10 and the headgate drum was near shield No. 3. The sloughage (or deflector) plate affixed to the top of the shearer was in the fully extended position. Between shield Nos. 1 and 18, metal bounce guards were in place on shield Nos. 7, 9, 11, 13, 15, and 17 and conveyor belting was suspended from shield Nos. 5 to 14, and 16 to 18. The victim was located on shield No. 11.

The fatal bounce/bump event caused coal to be thrown from the panel face across the chain conveyor and into the travelway between the conveyor and the shield legs. The affected portion of the face appeared to extend from shield No. 18 to the headgate corner. However, the largest cavity was immediately in front of shield No. 11. This cavity was in the upper half of the face and was as much as 2 ½ feet deep (beyond the shearer bit marks) for a distance of about 7 ½ feet. The ejected coal appeared to release along a nearly horizontal, planar discontinuity near the top of the coalbed. This feature was visible in the face from shield Nos. 8 to 18 and in some locations had a reddish appearance common to bumped/bounced strata surfaces.

Outburst/Bounce History:

Bounces and outbursts were common along the 12th East longwall face. The severity varied from a “thud” or sound in the roof with movement in the floor to coal being blown from the face. These events would occur anywhere along the face but were more common near the gate entries. Outbursts and bounces also occurred in the yield pillars in the headgate entries. These events were designed to be controlled using the additional supports and chain link fencing noted previously.

On January 9, 2006, Andalex issued written “Bounce Procedures” to longwall workers “to avoid any accidents due to bouncing on the longwall face and gate ends.” Meetings were held at the Mine Manager’s office where the bounce guidelines were presented by the Longwall Coordinator. These guidelines restricted access to the longwall face when cut throughs were made at the tailgate and headgate and specified that shearer operators “position themselves behind the bounce plates on the shearer or another safe location when cutting in the tailgate and headgate entries.” After the 5:00 p.m. outburst, Jed Gordon, Longwall Section Foreman, talked to each crew member and reminded them about these bounce procedures.

An outburst occurred on the longwall face the shift prior to the accident (dayshift, January 29, 2006). It bounced at the headgate on the last pass of the shift. The shearer machine was near shield No. 20, heading back up the face, when the outburst occurred. The shearer operators had to back up to the headgate and cleanup the coal that was blown from the face. An outburst also occurred at the headgate earlier in the shift when the accident occurred. This event occurred at approximately 5:00 p.m., January 29, 2006, with the shearer at the headgate. The outburst occurred near the middle of the shearer. It was described as significant and marginally less than the one that caused the accident with coal coming over the shearer onto the deflector shield. No injuries occurred during this outburst.

Roof Control Plan Requirements:

The approved roof control plan at the time of the accident required that shields in the area where bursts were occurring be equipped with conveyor belt guarding hanging from the bottom of the shield canopies between the walkway and face conveyor. These guards were required to be 60 inches wide, 5 to 6 feet long, and nominally ½ inches thick. They hung loose at the bottom. Shearer operators were required to be positioned in a safe location behind the shearer guard (deflector plate on the shearer) or the shield guards (conveyor belt guarding hanging from the shield canopies). These guards were in place at the time of the accident and Jacobson was positioned behind a conveyor belt guard and an expanded metal guard at No. 11 shield.

Corrective action following the January 29, 2006, accident required conveyor belt guards and metal guards to be installed from shield Nos. 5 to 135 with the conveyor belt guards attached at the bottom to the face conveyor to limit the amount they could travel into the walkway. The belt guards were also restrained by two horizontal chains attached to the metal guards. Requirements restricting travel on the longwall section were implemented. Shearer operators were required to position themselves behind the elevated cutter drums, shearer lump breaker, or shearer sloughing plate (deflector plate) during the cutting sequence. In addition, headgate and tailgate entries were required to be mapped for geologic features and, where sandstone channels were found, the normal 30-inch cutting web at the face would be reduced to 15 to 18 inches. These requirements were incorporated into a roof control plan amendment approved February 10, 2006.

Training and Experience:

Shane Jacobson, age 37, had 12 years 8 weeks mining experience with 3 years and 4 weeks at the Aberdeen Mine. He had 1 year and 16 weeks experience as a longwall propman/shearer operator. A review of training records indicated that Jacobson had received training as required by 30 CFR 48.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. The following root cause was identified:

1. Root Cause: Management did not have sufficient procedures in place to ensure that adequate barriers were installed and used in a manner to protect miners from hazards related to outbursts on the longwall face.

Corrective Action: Conveyor belt guards and metal guards were installed from shield Nos. 5 to 135 with the bottom of the conveyor belt guards attached to the face conveyor to limit movement into the longwall walkway. The belt guards were also restrained by two horizontal chains attached to the metal guards. Requirements restricting travel on the longwall section were implemented. Shearer operators were required to position themselves behind the elevated cutter drums, shearer lump breaker, or shearer sloughing plate (deflector plate) during the cutting sequence. In addition, headgate and tailgate entries were required to be mapped for geologic features and, where sandstone channels were found, the normal 30-inch cutting web at the face would be reduced to 15 to 18 inches.

CONCLUSION

The accident occurred because barriers/guards between the coal face and walkway area were not adequately installed and used in a manner to protect miners from hazards related to coal outbursts on the longwall face. The operator had not identified and implemented any techniques to control high stress on the longwall face. Lacking means to control this stress, adequate procedures and measures for controlling the effects of outbursts had not been implemented in high stress areas such as at the longwall headgate. Guidelines regarding safe positioning of miners while cutting coal did not specifically prohibit miners from working at the victim's location when the accident occurred.

Approved by:

/s/ Allyn C. Davis

Allyn C. Davis
District Manager

May 4, 2006

Date

ENFORCEMENT ACTIONS

Order No. 7607951 was issued to Andalex Resources, Inc. under the provision of Section 103(k) of the Mine Act to ensure the safety of the persons on the longwall face until an investigation could be conducted and the section returned to safe operations.

A citation was issued to Andalex Resources, Inc. under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 75.202(a). The barriers between the coal face and the walkway area were not adequately installed and used in a manner to protect miners from hazards related to coal outbursts on the longwall face. A bounce and coal outburst occurred on the 12th East longwall (Panel No. 7) on January 29, 2006, which fatally injured the tailgate shearer operator. Procedures for installing barriers between the coal face and the walkway where the miner was injured did not require them to be secured in a manner to withstand potential forces from coal outbursts in known high stress areas such as the headgate area of the longwall.

A citation was issued to Andalex Resources, Inc. under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 75.223(a)(1). Revisions to the roof control plan were not proposed by the operator when conditions indicated that the plan was not suitable for controlling the effects of outbursts that were occurring on the longwall face. A bounce and coal outburst occurred on the 12th East longwall (Panel No. 7) on January 29, 2006, which fatally injured the tailgate shearer operator. Prior to this accident, bounces and coal outbursts occurred on the longwall face, which led management to implement “Bounce Procedure” guidelines on January 9, 2006. However, revisions of the roof control plan addressing these conditions were not proposed by the operator.

APPENDIX A

List of Persons Participating in the Investigation

ANDALEX RESOURCES, INC. OFFICIALS

Samuel C. Quigley	Vice President
Garth Nielson	Mine Superintendent
Laine Adair	General Manager
Joseph R. Fielder	Equipment Manager
James Poulson	Safety Manager
Bert Peacock	Safety Director
Randy Perri	Mine Manager
Steven Richens	Longwall Coordinator
Ronald C. Giacoletto	Shift Foreman
Jed R. Gordon	Section Foreman
John J. Bonacci	Section Foreman
Matthew M. Durham	Attorney, Stoel Rives, LLP
Nick Sampinos	Attorney at Law

ANDALEX RESOURCES, INC. EMPLOYEES

Justin T. Barrington	Propman
Lyle P. Brown	Shearer Operator
Kyle S. Dean	Shearer Operator
Mathew B. England	Headgate Operator
David E. Powell	Beltman/Mine Examiner
Joshua D. Westover	Shearer Operator
Wesley Dean Whippey	Headgate Operator

MINE SAFETY AND HEALTH ADMINISTRATION

Danny L. Vetter	Special Investigator
Donald E. Durrant	Coal Mine Safety and Health Inspector
Billy D. Owens	Roof Control Supervisor
Kent L. Norton	Training Specialist
James G. Vadnal	Mine Safety and Health Specialist (Roof Control) Arlington, VA
Joseph A. Cybulski	Supervisory Mining Engineer Technical Support
Joseph C. Zelanko	Supervisory Mining Engineer Technical Support
William G. Denning	Staff Assistant to the District Manager

APPENDIX B
FATAL FALL OF FACE
ABERDEEN MINE (ID NO. 42-02028)
ANDALEX RESOURCES, INC.
PRICE, CARBON COUNTY, UTAH
JANUARY 29, 2006

**PHOTOGRAPH OF SHEARER WITH
DEFLECTOR SHIELD IN RAISED POSITION
12th EAST LONGWALL (PANEL NO. 7)**



APPENDIX C

FATAL FALL OF FACE
ABERDEEN MINE (ID NO. 42-02028)
ANDALEX RESOURCES, INC.
PRICE, CARBON COUNTY, UTAH
JANUARY 29, 2006

PHOTOGRAPH OF EXTENT OF OUTBURST AT ACCIDENT SITE 12th EAST LONGWALL (PANEL NO. 7)



View from shield No. 11 in face conveyor panline looking toward shearer and the headgate area. Note that conveyor continued to run after accident, emptying ejected coal and rock from the face conveyor.

APPENDIX D

FATAL FALL OF FACE
ABERDEEN MINE (ID NO. 42-02028)
ANDALEX RESOURCES, INC.
PRICE, CARBON COUNTY, UTAH
JANUARY 29, 2006

PHOTOGRAPH OF BOUNCE GUARDS IN PLACE AT ACCIDENT SITE, SHIELD NO. 11 12th EAST LONGWALL (PANEL NO. 7)



Note: Belt guard normally is on right side of metal guard, but was moved after accident for recovery purposes.

APPENDIX E

FATAL FALL OF FACE
ABERDEEN MINE (ID NO. 42-02028)
ANDALEX RESOURCES, INC.
PRICE, CARBON COUNTY, UTAH
JANUARY 29, 2006

SKETCH OF AREA SUPPLEMENTAL SUPPORT

12th EAST LONGWALL (PANEL NO. 7)

