

UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface  
(Construction Sand and Gravel)

Fatal Powered Haulage Accident  
April 22, 2021

Broadfoot Pit #2  
Broadfoot Sand & Gravel Inc.  
Kearney, Buffalo County, Nebraska  
ID 25-01118

Accident Investigator

Christopher A. Ewing  
Mine Safety and Health Inspector

Originating Office  
Mine Safety and Health Administration  
Central Region - Madisonville District  
100 YMCA Drive Madisonville, KY 42431  
Robert A. Simms, District Manager

## TABLE OF CONTENTS

OVERVIEW	1
GENERAL INFORMATION	1
DESCRIPTION OF THE ACCIDENT	2
INVESTIGATION OF THE ACCIDENT	2
DISCUSSION	3
Location of the Accident	3
Weather	3
Equipment Involved in the Accident	3
Training and Experience	3
Examinations	3
ROOT CAUSE ANALYSIS	4
CONCLUSION	4
ENFORCEMENT ACTIONS	5
Appendix A – Persons Participating in the Investigation	6
Appendix B – Aerial View of the Accident Scene	7
Appendix C – Barrier Gate Similar to the One Involved in the Accident	8
Appendix D – T-Post Stop and the Number Nine Wire	9



## OVERVIEW

On April 22, 2021, at approximately 4:00 p.m., Robert Earl Beam, a 53-year-old dredge operator with over 6 years of experience, died when his personal vehicle struck a partially closed gate on the mine road.

The fatality occurred because the mine operator did not assure that the manual swing barrier gate was secured to prevent unintentional movement, especially during windy conditions.

## GENERAL INFORMATION

Broadfoot Sand & Gravel Inc. owns and operates the Broadfoot Pit #2 mine. Broadfoot Pit #2 is a surface sand and gravel mine located in Kearney, Buffalo County, Nebraska. Broadfoot Pit #2 employs three miners and operates one shift per day, five to six days per week. The miners use a dredge to extract material from multiple dredge pits. The dredge pumps the mined material to a sand bin where the material is screened and sized. The mine operator uses front-end loaders to load the material into customer trucks.

The principal officers for Broadfoot Pit #2 at the time of the accident were:

Aaron Broadfoot  
Austin Broadfoot

Officer  
Officer

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on October 14, 2020. The 2020 non-fatal days lost (NFDL) incident rate for Broadfoot Pit #2 was zero, compared to the national average of 0.0264 for mines of this type.

#### DESCRIPTION OF THE ACCIDENT

On April 22, 2021, at 7:00 a.m., Aaron Broadfoot examined the haul roads and all three barrier gates on the property. At 12:30 p.m., Beam arrived at the mine, conducted a pre-operational examination of the dredge, and began dredging raw material from the dredge pit area. At 3:30 p.m., Beam shut down the dredge to repair broken dredge ropes which had been damaged throughout the day due to windy conditions. Based on interview statements and cell phone logs, investigators learned that Beam left the dredge at 3:53 p.m. Beam drove to the office before proceeding east down the northeast haul road. Beam was turning through a curve in the road to exit mine property when his pickup truck struck the steel barrier gate that was partially closed, resulting in a fatal injury.

Hawkin Person, Truck Driver, turned onto the northeast haul road and noticed the road was blocked by a pickup truck at the northeast haul road entrance. Person contacted Rod Gudhart, Loader Operator, and explained that a pickup truck was blocking the entrance on the north dredge pit. Gudhart drove his front-end loader to the northeast haul road entrance where he found Beam in his pickup truck unresponsive. Gudhart called Austin Broadfoot on his cellphone to inform him of the accident.

Austin Broadfoot left the office, drove to the northeast haul road entrance, and called 911 at 4:14 p.m. Shelby Bock and Kevin Badgley, Emergency Medical Technicians (EMT), from Good Samaritan Emergency Medical Services, arrived at the accident scene at 4:23 p.m. and after their assessment, found Beam to be unresponsive. The EMTs declared Beam dead at 4:24 p.m. and Kane M. Ramsey, Deputy County Attorney, of Buffalo County, Nebraska certified the declaration at 5:00 p.m.

#### INVESTIGATION OF THE ACCIDENT

On April 22, 2021, at 4:21 p.m., Austin Broadfoot called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Curtis Hardison, Staff Assistant. Hardison contacted Robert A. Simms, District Manager, who dispatched Christopher A. Ewing, Mine Safety and Health Inspector, to the mine.

Ewing arrived at the accident scene at 8:00 p.m. and issued an order under the provisions of Section 103(k) of the Mine Act to assure the safety of the miners and preservation of evidence. Ewing conducted a physical examination of the accident scene, interviewed management and

miners, and reviewed conditions and work procedures relevant to accident. MSHA conducted the investigation in conjunction with the Kearney City Police Department. See Appendix A for a list of persons who participated in the investigation.

## DISCUSSION

### Location of the Accident

The accident occurred at the northeast haul road entrance barrier gate, which is southeast of the north dredge pit (see Appendix B). Investigators measured the entrance barrier gate to be 19 feet in length. The portion of the gate that struck the pick-up truck is 48 inches above the roadway. The northeast haul road entrance barrier gate is constructed out of three-inch by three-inch square tubing (see Appendix C).

The entrance barrier gate opens from the north side of the entrance, rotating to the southwest, stopping against a steel T-post. A single piece of number nine American Wire Gauge wire was available to wrap around the post to secure the barrier gate in the open position (see Appendix D). The wire was not sufficient to secure the barrier gate open. Without the barrier gate securely fastened to the post, the wind that day was able to blow the barrier gate partially closed.

### Weather

The weather at the time of the accident was mostly overcast with a temperature of approximately 53 degrees, and the wind was blowing south-southeast at 32 miles per hour (mph) with gusts up to 40 mph. The sun was in a westerly direction at the time of the accident and did not affect the driver's visibility. Investigators determined that weather was a factor in the accident because the wind blew the barrier gate partially closed, blocking the roadway.

### Equipment Involved in the Accident

The pickup truck involved in the accident was a 1997 GMC Sierra 1500 4x4 truck. Investigators conducted a physical inspection of the pickup truck, including steering and brakes, and found no defects that contributed to the accident.

### Training and Experience

Beam had over six years of mining experience with two years of experience at this mine. Beam received all his training in accordance with MSHA Part 46 training regulations.

### Examinations

Ewing determined the mine operator did comply with the requirements for workplace examinations. Aaron Broadfoot performed workplace examinations, including the haul roads. The mine operator did have records of workplace examinations for the area.

## ROOT CAUSE ANALYSIS

The accident investigation team conducted an analysis to identify the underlying causes of the accident. The team identified the following root causes, and the mine operator implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The mine operator did not assure that the manual barrier gate was securely fastened in the open position.

Corrective Action: The mine operator has secured all barrier gates on mine property with a chain or strap attached to a post. Additionally, the mine operator painted all of the barrier gates, applied reflective tape to the gates, and installed signs on the approaches to the gates to warn drivers that gates are near. Further, the mine operator developed a written policy that all barrier gates on mine property must remain open and secured during normal business hours. When a barrier gate is in need of any work, a supervisor will be made aware of the situation and will implement necessary corrective action.

## CONCLUSION

On April 22, 2021, at approximately 4:00 p.m., Robert Earl Beam, a 53-year-old dredge operator with over 6 years of experience, died when his personal vehicle struck a partially closed gate on the mine road.

The fatality occurred because the mine operator did not assure that the manual swing barrier gate was secured to prevent unintentional movement, especially during windy conditions.

Approved by:

---

Robert A. Simms  
Madisonville District Manager

---

Date

## ENFORCEMENT ACTIONS

1. A 103(k) Order was issued to Broadfoot Sand & Gravel, Inc. on April 22, 2021, at 8:10 p.m.

A fatal accident occurred at this mine on 04/22/2021 when a Miner operating his GMC 1500 4x4 pickup on one of the main haulage roads struck a gate that had partially blown closed due to the weather conditions. This order is being issued, under section 103(K) of the Federal Mine Safety and Health Act of 1977, to prevent the destruction of any evidence, which would assist in investigating the cause or causes of the accident. It prohibits all activity within 300' in all directions of the Northeast entrance to the Dredge Pit and the victim's pickup (GMC 1500 4x4 regular cab pickup, tag #9-924A Nebraska) until MSHA has determined that it is safe to resume mining activities. The order was initially issued orally to the mine operator at 20:10 central time and has now been reduced to writing.

Appendix A  
Persons Participating in the Investigation

Broadfoot Sand and Gravel, Inc.

Aaron Broadfoot	Officer
Austin Broadfoot	Officer
Hawkin Person	Truck Driver
Rod Gudhart	Loader Operator

Kearney City Police Department

Derek Luke	Sergeant
Ned Oreshkov	Police Officer
Cody Obradovich	Police Officer
Jeff Schwarz	Police Officer
Zach Schwarz	Police Officer
Lacie Lindner	Police Officer
Dan Warrington	Investigator
Doug McCarty	Investigator

Good Samaritan Emergency Services

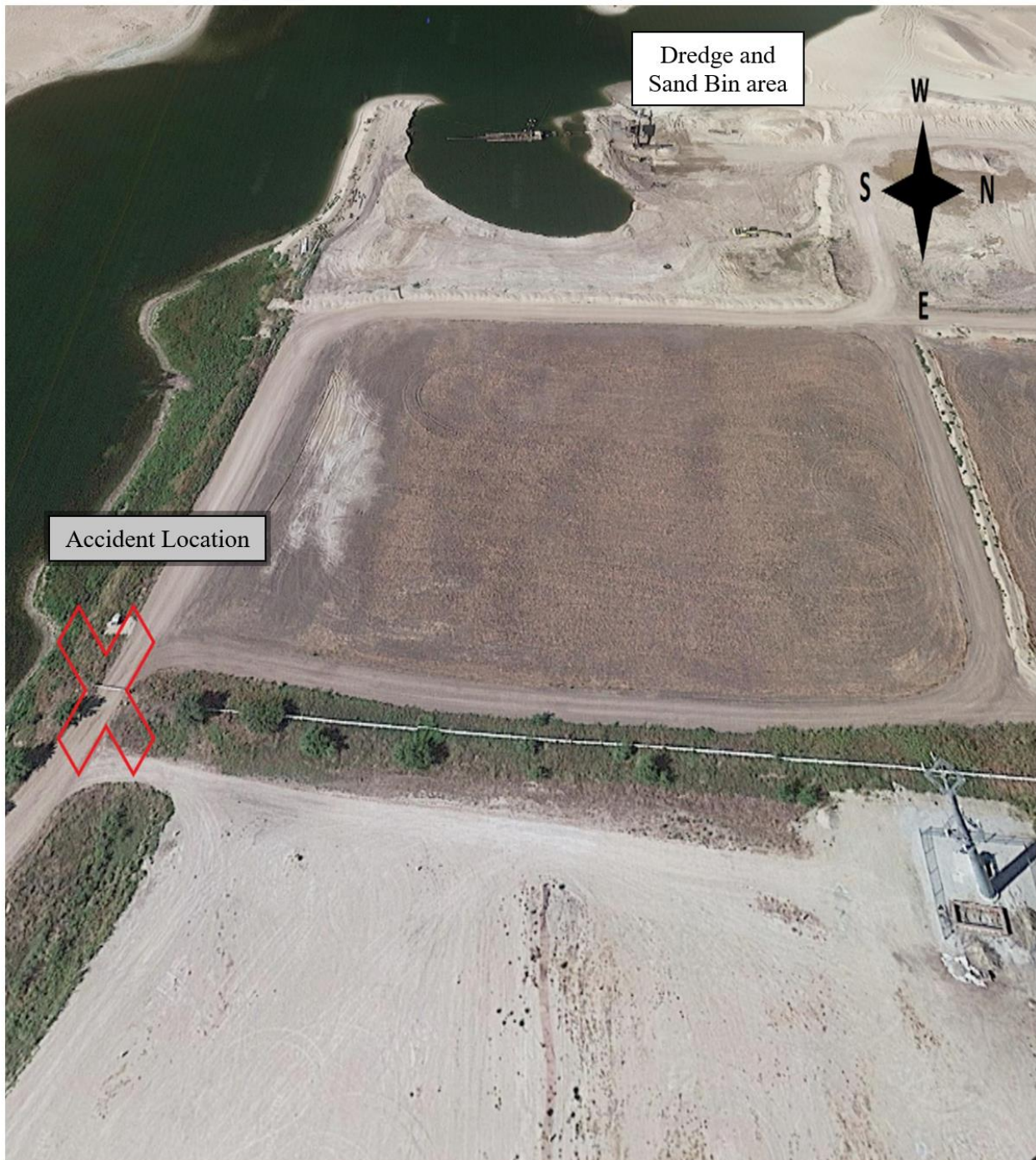
Shelby Bock	Emergency Medical Technician
Kevin Badgley	Emergency Medical Technician

Mine Safety and Health Administration

Christopher A. Ewing	Mine Safety and Health Inspector
----------------------	----------------------------------



Appendix B  
Aerial View of the Accident Scene



Appendix C  
Photograph of a barrier gate similar to the one involved in the accident





Appendix D  
Photograph of the T-Post Stop and the Number Nine Wire

