County Man Dies In Mine Mishap

BROWNSVILLE, Pa. (UPI)—A Washington County miner died in Brownsville Hospital Wednesday three hours after he was injured in a slate fall at the Republic Coal Co.'s Clyde Mine in Greene County.

Authorities said Alfred Campbell, 55, Fredericktown, was working in the Ross shaft when the fall occurred.

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COAL FATAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Health and Safety District A

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REPORT OF FATAL COAL MINE ROOF-FALL ACCIDENT
CLYDE MINE
REPUBLIC STEEL CORPORATION
NORTHERN COAL MINES DISTRICT
FREDERICKTOWN, WASHINGTON COUNTY, PENNSYLVANIA

May 22, 1968

by

J. D. Breedon
Federal Coal Mine Inspector

Originating Office - Bureau of Mines
4800 Forbes Avenue, Pittsburgh, Pa. 15213
W. Dan Walker, Jr., District Manager
Health and Safety District A

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INTRODUCTION

This report is based on an investigation made in accordance with the provisions of the Federal Coal Mine Safety Act (66 Stat. 692; 30 U.S.C. Secs. 451-483) as amended.

On Wednesday, May 22, 1968, about 5:30 a.m., Alfred Campbell, loading-machine operator, was fatally injured by a fall of roof in the No. 2 entry, 2 butt left 12 face right section of Clyde mine. Campbell, age 55, had 35 years mining experience, 25 years at this mine. He had been employed as a loading-machine operator for the last 5 years. He is survived by his widow.

The Waynesburg office of the Bureau of Mines was notified of the accident by Ed Filer, Safety Director, about 8:45 a.m. on the day it occurred. An investigation was started promptly and completed June 3, 1968.

GENERAL INFORMATION

The mine is opened by two drifts and five shafts into the Pittsburgh coalbed, which averages 74 inches in thickness in the areas being mined. The average daily production was 4,107 tons of coal, all loaded mechanically. Employment was provided for 352 persons, of whom 63 worked on the surface and 289 underground on 3 production shifts a day.

In the section where the accident occurred, coal was mined by a ripper-type continuous-mining machine which discharged the coal onto the mine floor. A loading machine loaded the loose coal into shuttle cars. The product was transported to loading ramps and discharged onto a belt conveyor, thence into mine cars. The mine cars were hauled to the surface with trolley locomotives.

Information for this report was obtained by an investigation at the scene of the accident and from statements made by Columbus Smith, continuous-mining-machine operator; George Pinkney and George Burkett, shuttle-car operators, who were in the immediate area where the accident occurred; and George Campbell, Assistant Mine Foreman, who was in charge of the section.

A block system of mining was practiced and pillars were extracted by a pocket-and-wing system. The 2 butt left 12 face right section had been developed by four entries on 100-foot centers with crosscuts at 100-foot intervals. Entries, crosscuts, and pillar pockets were driven 16 feet in width. Due to the sloughing of the ribs, No. 2 entry was 16 feet 10 inches wide where the accident occurred. During development 8 to 12 inches of draw rock was mined with the coal seam. Generally, about 6 to 12 inches of wild coal formed the immediate roof, which was overlain with laminations of coal and shale of varying thicknesses. The main roof was sandstone. Numerous clay veins, slips, and spars were encountered in the section where the accident occurred and indications of excessive roof stress were present outby the gobline.

A Bureau-approved plan for roof support was adopted. The plan required roof bolts to be installed in staggered rows of two. The bolts were offset 21 inches lengthwise and 8-1/2 feet crosswise with one bolt in each cross section (see sketch No. 1). During development roof bolts had not been installed in accordance with the adopted plan in the immediate area where the accident occurred, but a supplemental row of roof bolts had been installed later on 2- to 5-foot centers between the required rows of bolts (see sketch No. 2). Due to the clay vein encountered in No. 2 entry, wooden crossbars had been bolted to the roof inby the clay vein, but outby (accident area) crossbars were not used. Although the number of roof supports installed in No. 2 entry was in excess of the minimum required by the plan, it is apparent that the installed roof supports were inadequate for the abnormal roof condition encountered.

As a result of this fatal accident a roof-control resurvey will be made at this mine.

A systematic method of conventional timbering had been adopted for use in pillar recovery. The timbering plan was followed in all places visited during this investigation.

Roof bolts were installed by workmen assigned to do this work. When a pocket or stump was being prepared for mining, crossbars were installed by assigned timbermen and other available crew members.

Officials and employees were familiar with the proper methods of testing and examining the roof, face, and ribs. Reportedly, these examinations were made in the face areas, and visual examinations were made along the shuttle-car roadway where the accident occurred.

The investigating committee consisted of the following:

Republic Steel Corporation
Northern Coal Mines District

A. M. Shaffer	Superintendent of Industrial Relations
J. W. Connor	Superintendent
Ed Filer	Safety Director
Steve Rodavich	Mine Foreman

Pennsylvania Department of Mines and Mineral Industries

F. A. O'Brochta	State Mine Inspector, 8th Bituminous District

United Mine Workers of America

Carl Bailey	Safety Committeeman, L.U. No. 688
Allen Hagar	do. do.
Nick Savage	do. do.

United States Bureau of Mines

J. D. Breedon	Federal Coal Mine Inspector
Henry Zavora	Federal Coal Mine Inspector (Roof Control, Acting)

The last Federal inspection of this mine was completed April 26, 1968.

DESCRIPTION OF ACCIDENT

Campbell, loading-machine operator, was a member of the 2 butt left 12 face right section crew that left Ross shaft portal about 12:05 a.m. on Wednesday, May 22, 1968, and arrived on the working section about 20 minutes later. The crew began work in a pillar pocket between Nos. 1 and 2 entries inby survey station No. 16+995. The pocket had been started by the same crew and driven about 15 feet on their previous production shift the day before the accident occurred. About 5:20 a.m. the pocket holed through to the gob in No. 1 entry and the continuous-mining machine was trammed back to No. 2 entry at the

entrance to the pocket. The crew began preparations to mine a 12- by 12-foot corner stump of coal of the wing. While posts were being changed, George Campbell, Assistant Mine Foreman and brother of the victim, was notified that the general crew timbermen had arrived on the section and he left the working place to show these men where additional supports were to be installed in the adjoining No. 3 entry.

Smith, continuous-mining-machine operator, pushed out two posts with the head of the machine and started to set a post under a crossbar near the corner stump but the post was too long. He started to get a saw off the machine and heard some roof fall outby. Smith looked back and heard the loading-machine pump motor running but did not see Campbell, so he started back toward the loading machine.

While the next place to be mined was being timbered Campbell, loading-machine operator, and Pinkney and Burkett, shuttle-car operators, were engaged in work outby the pillar stump near the outby crosscut. About 5:30 a.m. Campbell started tramming the loading machine toward the face to position it under the continuous-mining machine. Pinkney and Burkett were moving the trailing cables out of the shuttle-car roadway when they heard a roof fall. They looked toward the face but did not see Campbell. When Smith, Pinkney, and Burkett arrived at the loading machine, they saw Campbell's foot protruding out from under the fallen roof material. The top was still working and they quickly uncovered him and moved him to a safe location outby. He was given first aid and transported to the surface immediately. The company physician had been summoned and examined Campbell upon his arrival on the surface and sent him by ambulance to Brownsville General Hospital, Brownsville, Fayette County, Pennsylvania, where he died at 9:04 a.m. the same day.

CAUSE OF ACCIDENT

The cause of this accident was inadequately supported roof. Failure to make thorough roof examinations in the area of the clay vein outby the pillar line where excessive roof stresses were evident was a contributing factor.

RECOMMENDATIONS

Compliance with the following recommendations may prevent accidents of a similar nature:

1. Where abnormal roof conditions are encountered along travelways and roadways, sufficient additional roof supports such as planks or crossbars shall be installed to protect persons from falls of roof.

2. Where pillar stresses are evident, frequent thorough examinations of the roof should be made by officials and workmen so that an accurate evaluation of roof conditions can be made and adequate roof supports installed promptly.

3. The adopted plan for roof control (bolting) should be complied with at all times.

ACKNOWLEDGMENT

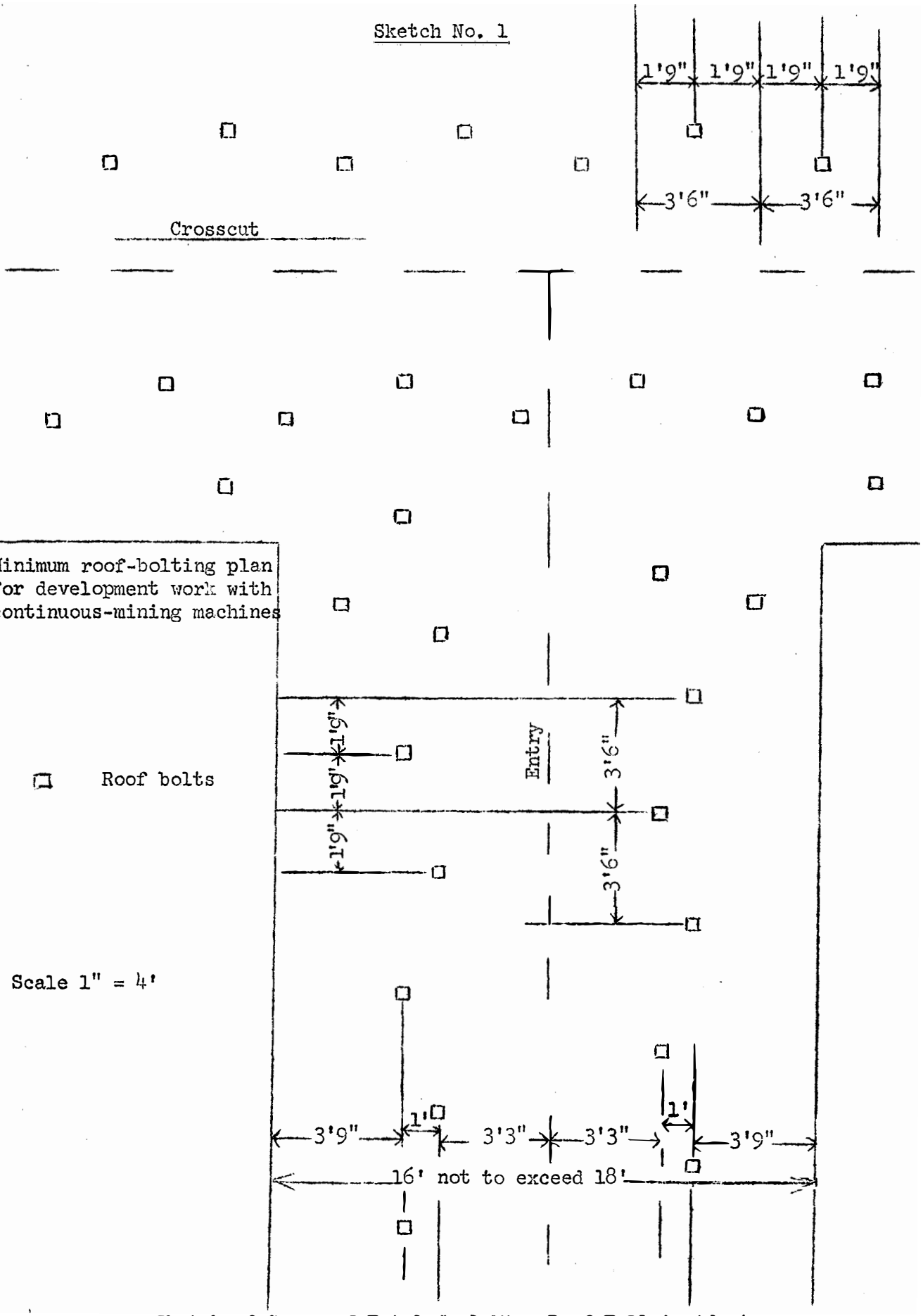
The cooperation of the company officials and employees, the State mine inspector, and representatives of the United Mine Workers of America during this investigation is gratefully acknowledged.

Respectfully submitted,

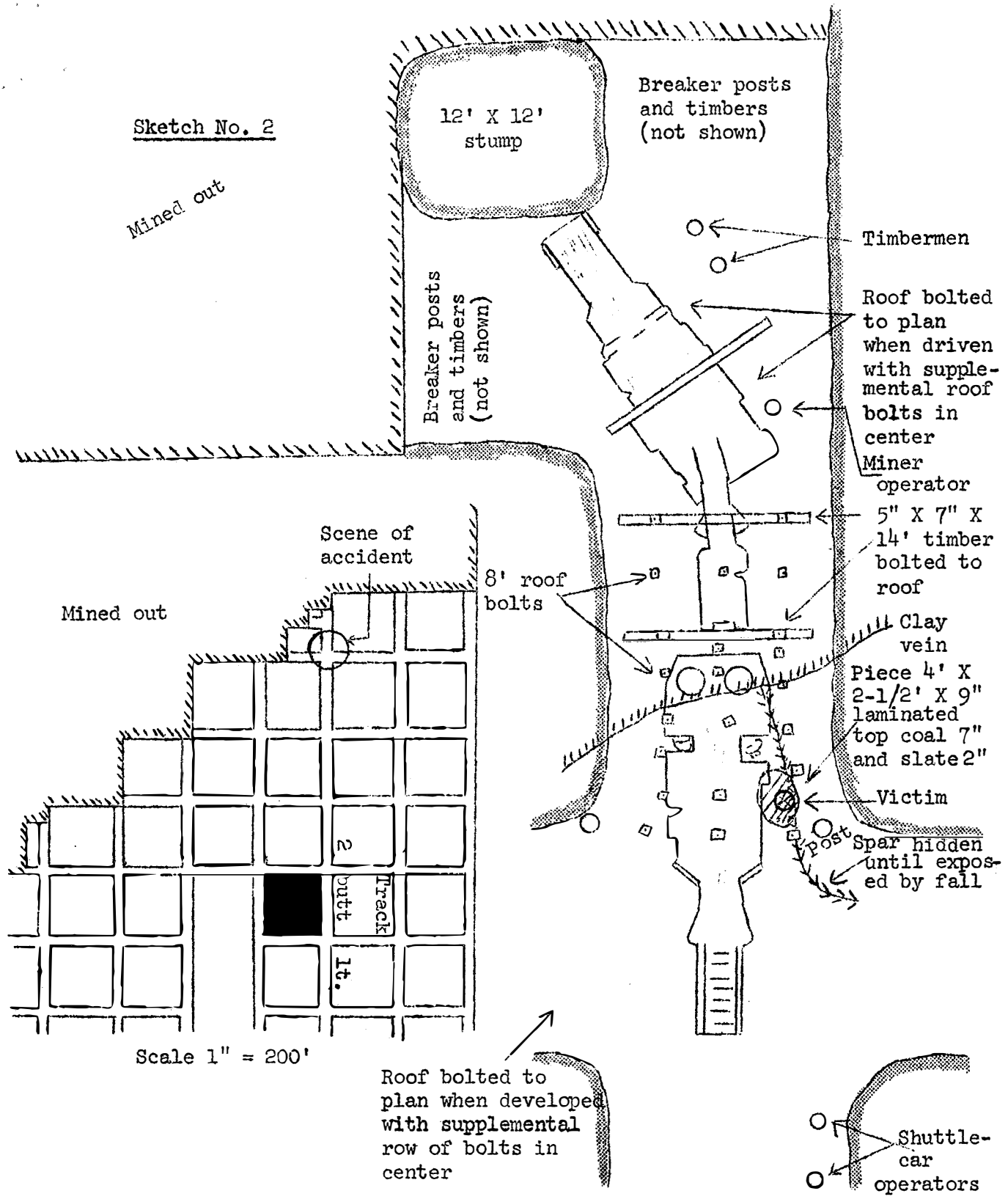
/s/ J. D. Breedon

J. D. Breedon

Sketch No. 1



Sketch of Scene of Fatal Coal Mine Roof-Fall Accident
Clyde Mine
Republic Steel Corporation, Northern Coal Mines District
Fredericktown, Washington County, Pennsylvania
May 22, 1968



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Scale 1" = 10'