

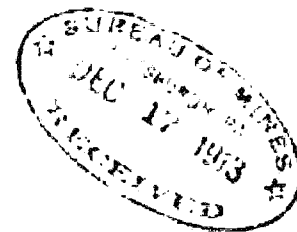


Reports

Action Mine #2

November 18, 1913

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES



PRELIMINARY REPORTS ON MINE DISASTERS.

In preliminary reports on mine disasters a statement as to the activity of employees of the Bureau and as to rescue or recovery operations is desired.

Some of the important points on which information is desired are as follows:

1. Name of mine Acton #2
 2. Operator Alabama Fuel & Iron Co.
 3. Location Acton, Ala.
 4. Date of accident Nov. 18 '13 Hour 3.21 pm.
 5. Kind of accident Explosion
 6. Killed 24 Injured 0
 7. B. of M. representatives present E. Sutton and H. H. Hamilton (volunteers)
 8. B. of M. car present Auto-truck
 9. Date and time of arrival—Men _____ Car 8.27 pm.
- Mr. Hamilton accompanied car, writer reached mine at 9.30 pm.
10. Names of persons composing rescue parties See reverse side
-
11. Names of mine officials present Chas. F. DeBordeleben, Genl. Mgr., H. S. DeBordeleben, 2nd Vice Pres., J. G. Stule, Supt., Chas. Landgraf, Foreman.
 12. Names of State inspectors present C. H. Hebbitt.
 13. Rescue accomplishments Several headings were exposed named 6th Right, 8th left and right and 14th right. Nobody rescued.
 14. Investigations conducted and by whom Commenced Nov. 24, 1913. C. H. Hebbitt, J. F. Mitts, David Kelso, and Frank Hillman represented the State. Geo. I. Rice, R. Y. Williams and E. Sutton, represented Bureau of Mines.
 15. Probable cause of the accident (if unknown or uncertain, so state) Misfire or Blown-out Shot.
 16. If breathing apparatus was used, or is being used, in the rescue or recovery work, use attached sheet "Report on Mine Rescue or Recovery Work."

REPORT ON MINE RESCUE OR RECOVERY WORK

1. Name of mine Acton #2 Fire or explosion Explosion Date Nov. 18, 1913
 2. Name of operator Alabama Fuel & Iron Co. Location of mine Acton, Ala.
 3. Number of men in mine at time of disaster 29
 4. Number of men killed by violence } 13
 5. Number of men killed by burns } 11
 6. Number of men killed by suffocation } 24
 7. Total number of men killed 5
 8. Total survivors
 9. Number of men injured nonfatally by burns
 10. Number of men injured nonfatally by violence
 11. Number of men injured nonfatally by gases
 12. Number of men escaped unassisted 4
 13. Number of men rescued by B. of M. men wearing apparatus 0
 14. Number of men rescued by others wearing apparatus 0
 15. Number of men rescued jointly by men wearing apparatus 0
 16. Number of rescuers overcome not wearing apparatus 0
 17. Number of rescuers losing life not wearing apparatus 0
 18. Number of rescuers overcome wearing apparatus one was partly overcome
 19. Number of rescuers losing life wearing apparatus 0
 20. Number of persons revived by reviving apparatus 1
 21. Number of persons revived by artificial resuscitation 0
 22. Number of B. of M. rescuers engaged 2 (Mr. Hamilton so considered)
 23. Number of others engaged 5 of J. L. & Ry. Co.
 24. Number of B. of M. breathing apparatus used 5
 25. Number of breathing apparatus used, owned by others 10
 26. Maximum distance traveled in noxious gases, wearing apparatus probably 400 ft.
 27. Number of stoppings or bulkheads constructed, wearing apparatus 0
 28. Number of doors erected or opened, wearing apparatus 0
 29. Feet of pipe or hose laid, wearing apparatus 0
 30. Total hours engaged, using apparatus indeterminate
 31. Was the fire located, controlled, extinguished, or inclosed through the efforts of men wearing apparatus?
 32. Was the fire area opened and explored by use of apparatus?

STATE AND COMPANY OFFICIALS PRESENT.

Name Chas. F. DeBardeleben Title Vice Pres. & Gen. Mgr.
 Name Henry J. DeBardeleben Title 2nd Vice Pres.
 Name J. G. Steele Title Superintendent
 Name E. H. Hewitt Title Chief Mine Inspector.

REMARKS.—Give items of special interest, including names and addresses of persons wearing apparatus.

Messrs. A. R. Brown, J. W. Groves, J. F. Meagher, J. M. McHugh, Jas. Brown, Hugh Lynch, J. A. Rigney, Mike Dugan, Eurig Brandt, John Smith Alex Gore, Francis Brawley, Ewel Brown, Thomas Williamson, and Thos. Wayne wore apparatus of the Tenn. Coal, Iron & Ry. Co. Messrs. H. H. Hamilton, I. W. Newby, and E. B. Sutton represented the bureau. Mr. Jno. F. Meagher inhaled sufficient afterdamp to cause him to lose the use of his limbs and Thos. Williamson was rendered unconscious.

Signed E. B. Sutton
 Date Dec. 11, 1913

REVISED REPORT
of
RESCUE and FIRST-AID WORK
in
connection with
EXPLOSION
at
ACTON MINE #2
of
ALABAMA FUEL & IRON COMPANY
ACTON, SHELBY COUNTY, ALABAMA.
NOV. 18, 1913.
by
E. E. Sutton.

Dec. 15, 1913.
Birmingham, Ala.

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Introduction.

On November 18, 1913, at about 3.21 p. m. (the recovery of a watch which had stopped at this hour, establishes this as the probably hour) an explosion occurred at Acton Mine #2 of the Alabama Fuel & Iron Company at Acton, Shelby County, Alabama. At the time of the explosion twenty-nine (29) men were in the mine, of which number twenty-four (24) were lost (thirteen of this number sustained injury or were burned sufficiently to cause death, and eleven (11) met death by suffocation). Five (5) men effected their escape, one of this number needing assistance which was rendered by the early rescue party, unequipped with breathing apparatus.

On the day of this explosion, the writer had gone to the Wegra Mine of the Pratt Consolidated Coal Co. to make investigation of conditions and to make notes on this mine. Mr. H. H. Hamilton, of the Dupont Powder Company, knowing my whereabouts got in touch with me at about 5.30 p. m. To the best of Mr. Hamilton's recollection, he received the information concerning the explosion at about 5.15 p. m. He engaged a taxicab and left Birmingham for the ^{Bureau rescue station at} West End at about 5.50 p. m. ^{to get the auto truck} and had returned ^{with it} to the Brown-Marx Bldg. Birmingham, where he picked up Mr. I. W. Newby at about 6.27 p. m., immediately ^{leaving for} arriving at Acton, where he arrived at 8.22 p. m. The officials of the

Tennessee Coal, Iron, & Railroad Company were advised of the occurrence of the explosion at about the same time as Mr. Hamilton. The writer was informed by Mr. Crane of this company that they had hoped to start for Aston by 6.00 p. m., but were delayed by assembling their ^{rescue corps} men until about 7.00 p. m. The ^{rescue and} hospital car of this company arrived at Aston at about 8.50 p. m.

At about 9.10 p. m. Mr. Hamilton responded to a call from within the mine that a man (Jerry Williams) had been found alive and hastened to the fourth 4th Right with a Bureau of Mines pulmotor. This man was located by Mr. Ed. Husband, of Eureka, Ala. (without apparatus) at a point about two hundred feet from the slope. It was judged best by those in charge of the rescue work at this time to remove this man to the surface before giving him medical attention, his condition being that he was conscious but was unable to walk, and he was placed in the trip that brought Mr. Hamilton into the mine. Mr. Williams was taken to the car of the Tennessee Coal, Iron, & Railroad Company where he was cared for until such time as he was able to go to his home. Mr. Hamilton returned in the same trip, being notified that he was wanted on top. Mr. A. R. Brown desired the use of one of the Bureau of Mines apparatus and was fitted out in apparatus #6046. Mr. J. W. Groves desired the use of one of the apparatus of the bureau and was given #6042. Mr. John Brown also worn bureau apparatus.

The writer arrived at the mine at about 9.20 p. m. being carried from Birmingham in Mr. Sam'l. Rand's car. The apparatus crew of the Tennessee Coal, Iron, & Railroad Company entered the mine at about 9.30 p. m. and Mr. Hamilton and the writer entered a few minutes later, not until, however, after some delay caused by Mr. Chas. F. DeBardleben's order that no one enter the mine until he and the rescue party had returned. After getting in touch with Mr. Henry T. DeBardleben this order was waived and Mr. Hamilton wore Draeger apparatus and the writer Fleuss.

By this time five men (5) had escaped from the mine, one of the number, Jerry Williams, needing assistance. Williams had worked on the 4th left and from his statement he and three (3) others, Luke Patterson, Ed Bragg, and Jho. Langston, had started to the surface when at the inbye end of the side-track hw, Williams, realized he could go no farther. The other men left him and were found dead on the slope at the entrance of the 4th Right. Three men, Charlie Bushkarina, Gus Keolera, and Frank Keolera, who had worked on the 6th ^{Left} Right did not know an explosion had occurred and some time later as they were leaving the mine after their day's work encountered smoke at a point inbye the manway. They returned to their working places and succeeded in effecting their escape some two or more hours later.

Nick Dafias, who worked in the 7th Left, stated that he left his working place and proceeded toward the manway some distance before meeting the afterdamp. He became sleepy and stated that he laid down and sleep for several hours. Later he regained consciousness and proceeded up the manway to the 5th Left where he was recognized by rescue party and assisted to the top by being placed in a trip. This man stated that he had passed two ^{bodies} men in the manway at the 6th Left, who were afterwards identified as Albert Clepton and Eugene Hewitt who worked in the 8th Right. All of the men that escaped from the mine did so before the arrival of apparatus men and none of them were given first-aid treatment before they could be removed from the mine. Nine (9) bodies had been removed, or were being removed at the time the writer entered mine, the first body met was that of Jesse Taylor which lay at the mouth of the 7th Left.

Before entering the mine the rescue party knew that no exploration need be made of entries 1st, 2nd, and 3rd Right and Left as these entries were not working. It was also known that four men had worked on the 4th Left, one of whom had been found, (it is my understanding not unconscious) by the early rescue party and the other three were found on the slope, at the entrance to this entry, dead. These men and one other, Henry Childers, pumper, had been removed from the mine. Four (4) men, Burns Kittrell, Will McClellen, Jesse Pate, and Ben Thomas, it was known were engaged ^{on slope} at the 5th Left repairing track and their

bodies were found near this point and removed from the mine. One man was unaccounted for on the 4th Right, but this entry was passed as it was thought that men may still be alive in the deeper workings, this being supported by the fact that Nick Dafias had escaped from the 7th Left ~~unknown~~ having made his way up the manway to the 5th Left where he was met by early rescuers. This man was not in need of first-aid treatment as he was effecting his escape, he being recognized by a lighted lamp ^{on} of his head. His rescue was effected by men not wearing rescue apparatus. Entries 5th Left and 5th Right were idle. ~~All men on the 6th Left were accounted for, having left the mine before the explosion.~~ All men on the 7th Right and 7th Left were accounted for, the last man having effected his escape to a point of the 5th Left where the manway crosses and here was met by the early rescue party. Nick Difias, who had escaped from the 7th Left reported that he had passed two bodies in the manway just outbye the 6th Left. These ~~men~~ ^{bodies} were identified as those of Albert Clopton and Eugene Hewitt who had worked in the 8th Right. All men were accounted for in the 6th Left, they having effected their escape unassisted some time after the explosion. Five (5) men were known to have worked in the 6th Right and two (2) in the 9th Right.

The rescue work, therefore, narrowed itself down to entries 4th Right, 6th Right, 8th Left, 8th Right, and 9th Right.

The crew of the Tennessee Coal, Iron, & Railroad Company explored the 6th Right first to a point where the bodies of Cephus Cook, John Perkins, K. L. Perkins, John Horton, and Jas. Horton were found, a distance of about three (3) hundred feet from the slope. On the slope at the mouth of 7th Left the body of Jesse Taylor was found, badly mangled. Taylor had worked on the 8th Left and from information received was engaged at the time of the explosion in loading coal from the side track of the 8th Left.

~~Right.~~ The 8th Left entry was ^{next} explored to a distance of about three (3) hundred feet from the slope where the bodies of Joe Bushkarino, G. Malonas, Charlie Wallentine, and Wilton Walker were found badly mangled. Exploration was next made of the 8th Right entry to a point near the face where the body of C. R. Rodgers was found, burned. It was in this entry that the rescue party of the Tennessee Coal, Iron, & Railroad Company met with some difficulty, Mr. Williamson being overcome and Mr. John F. Meagher was sufficiently effected as to cause him ^{to lose} the use of his legs. It appears that on the return trip Mr. Thos. Williamson realized that he was becoming weak and signaled to Mr. Meagher that he desired to retreat. The party started for the slope, but Williamson soon became helpless and the remainder of the party became engaged in assisting him. The party was composed of five men. Mr. Meagher stated that during the advance movement of the party, it was necessary for him to inflate

the facial cushion of his apparatus frequently and while assisting in the removal of Mr. Williamson, he was unable to keep the cushion tight about his face, his hands being engaged with lamps and in carrying Mr. Williamson. Mr. Meagher realizing his condition hastened to hailing distance of the slope to give the alarm and there became helpless. Mr. A. R. Brown, Mr. J. W. Groves, and Mr. John Brown, all wearing bureau apparatus, proceeded slowly and succeeded in bringing Mr. Williamson to fresh air. The writer made no examination of the apparatus worn by Mr. Williamson, but when Mr. Williamson was returned to the slope his helmet had every appearance of being very insecurely attached to his face and Mr. Williamson afterward stated that he was compelled to keep the facial cushion continually inflated. At the instance of Mr. Meagher's first alarm, the impression was that three (3) of the party were down. This caused much confusion but a relief party was soon assembled and started into the entry. They met the party carrying Mr. Williamson at a short distance from the slope and assisted in bringing both Mr. Williamson and Mr. Meagher to the slope. Mr. H. H. Hamilton assembled a crew and became engaged in erecting a brattice across the slope and the writer went to the 6th Right for a pulmotor left there at the time of the exploration of that entry. Mr. Williamson was revived within a short time Mr. A. R. Brown and Mr. J. W. Groves

applying the pulmotor. Mr. Meagher, who was conscious was fed oxygen from a partly used cylinder. All apparatus used by the crew of the Tennessee Coal, Iron, & Railroad Company, except those of the Bureau of Mines, is Draeger of the 1907 type.

At this junction, the crews of the Tennessee Coal, Iron, & Railroad Company decided to go to the top. The writer, in company with Mr. Chas. Landgraf, mine foreman, and Mr. Akers went into the 9th Right and located two (2) bodies. There then remained one man unaccounted for and a crew from the Tennessee Coal, Iron, & Railroad Company reentered the mine to explore the 4th Right, not, however, until after Mr. Ed Husband and one other had located the body, without apparatus, at a point near the face of the entry turned to the left of the 4th Right. Mr. Husband's report that this body was still warm warranted a crew's going to him, but it was found that he was undoubtedly dead as he lay in a body of water, his face almost completely buried. The writer joined the party to within several hundred feet of the face without apparatus.

As a matter of precaution, Mr. Hamilton, Mr. Newby, and the writer joined a party the next day in the recovery of two (2) bodies, one in the 8th Right and one in the 4th Right. Apparatus was used in this work to remove the body in the 8th Right to a point where ventilation had been restored.

Special mention should be made of the valuable work

of Mr. Ed Husband of Eureka, Ala. as the rescue of Jerry Williams was accomplished by him unassisted.

The men composing the crews of the Tennessee Coal, Iron, & Railroad Company were Messrs. A. R. Brown, J. W. Groves, John F. Meagher, J. M. McHugh, J. R. Brown, James Brown, Hugh Lynch, J. A. Rigney, Mike Dugan, Eurig Brandt, John Smith, Alex Gore, Francis Brawley, Ewel Brown, Thomas Williamson, and Thos. Wayne. In addition Drs. C. M. Carraway and W. S. Roundtree were on hand and rendered medical assistance where needed. There other men attached to the party of the Tennessee Coal, Iron, & Railroad Co. who assisted in the transportation of apparatus and supplies.

The rescue and recovery work was under the direct supervision of Mr. C. H. Nesbitt, Chief Mine Inspector and the men of the Tennessee Coal, Iron, & Railroad Company reported to Mr. J. W. Groves and A. R. Brown. On the whole the work was very systematically carried on.

So far as the writer knows Mr. Ed Husband has not received any training from the Bureau of Mines in rescue or first-aid work and all his work at Acton was performed without apparatus. It was, however, stated by Mr. A. R. Brown that Mr. Husband had had instruction in first-aid work in England and was a member of either St. Andrews or St. Johns corps.

**Report of Rescue and First-aid Work in Connection
with Explosion at Aston Mine #2..**

Mr. H. H. Hamilton of the Dupont Powder Company, in absence of the writer, drove Mine Rescue auto-truck from Birmingham to Aston on the night of November 18, 1913, arriving ^{at the} latter point at 8.27 p. m., and having with him Mr. I. W. Newby of the Jefferson Powder Company. Both these men are trained rescue men, having taken the training under Dr. J. J. Rutledge and having served in such capacity in Banner and Briceville explosions. Mr. Henry DeBartleben, in his car and carrying Mr. C. H. Nesbitt, Chief Mine Inspector, acted as pilot for Mr. Hamilton.

At 8.50 p. m. the Hospital car of the Tennessee Coal, Iron, & Railroad Company arrived.

At 9.10 p. m. Mr. Hamilton responded to a call from within the mine that a man had been found alive and hastened to the 5th Left with a Bureau of Mines pulmotor. However, it was judged best by those in charge of the rescue work at this time to remove the man to the surface before giving him any artificial respiration and he was placed in the trip which had taken Mr. Hamilton into the mine. Mr. Hamilton returned with the trip, being notified that the car of the Tennessee Coal, Iron, & Railroad Company had arrived and that he was wanted on top. Mr. A. R. Brown desired the use of one of the Bureau of Mines apparatus and he was fitted up with apparatus #6046.

/

Mr. J. W. Groves also desired the use of one of the Bureau's apparatus and was given #6042. Mr. John Brown also wore apparatus of this bureau.

The writer arrived at the mine at 9.20 p. m., being carried from Birmingham in Mr. Sam'l. Rand's car. The Tennessee Coal, Iron, & Railroad Company's crews entered the mine at about 9.30 p. m. and Mr. Hamilton and the writer entered the mine a few minutes afterwards, not until, however, after some delay caused by Mr. Charles DeBartleben's order that no one be allowed to enter until he and the rescue party had returned. After getting in touch with Mr. Henry DeBartleben, this order was waived, Mr. Hamilton taking Graeger and the writer Florence apparatus.

Before entering the mine, the rescue party knew that no exploration need be made of entries 1st, 2nd, and 3rd right and left as these entries were not working. It was also known that four (4) men worked on the 4th left, one of these made his ^{rescue} escape and the others were found dead on the slope at its entrance, therefore no exploration need be made of this entry. One man was missing on the 4th right and this entry was passed as it was thought that live men may still be in some of the lower entries, this being supported by the fact that a man had made his escape from the seventh left and was rescued by the volunteer miners at the 5th left. Entries 5th left and 5th right were idle. All men on the 6th left were accounted for,

having left the mine before the explosion. All men on the 7th right and 7th left were accounted for, the last man having effected his escape and was rescued at the 5th left. It was known that four (4) men worked on the 8th left and three (3) ⁱⁿ of the 8th right. The man who had effected his escape from the 7th left reported that he had passed two men ^{below} in the manway at the 6th left and these were identified as two (2) of the men working in the 8th right. Two (2) ^{were} men known to have worked in the 9th right. 2

The rescue work, therefore, narrowed itself down to entries 4th left, ^{7th Right} 6th ~~left~~, ^{4th 6th R} 8th left, 8th right, and 9th right.. 4th?

The crew of the Tennessee Coal, Iron, & Railroad Company explored the 6th right first to the point where the men were found, a distance of about three (3) hundred feet from the slope. 5 ^{below} They next went to the 8th left and here found four men at a distance of about three (3) hundred feet from the slope. Next 8th right was explored to the face and one man was found nearly to the face. It was in this entry that the rescue party met with trouble and one of its number became overcome. An alarm was given and the writer hastened to the 6th right for a pulmotor which had been left there at the time of the exploration of this entry. Mr. Thomas Williams was resuscitated within a short time, Mr. A. R. Brown and Mr. J. W. Groves applying the pulmotor. Mr. John Maegher, who had also inhaled some afterdamp due to a defective helmet, was fed free oxygen from a partly used cylinder 5 4

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and soon was alright. Other members of the party were engaged in erecting a brattice across the slope inbye the 8th right to direct the full current into this entry.

At this junction, the crew of the Tennessee Coal, Iron, & Railroad Company decided to go on top. The writer in company with Mr. Chas. Landgraf, mine foreman and Mr. Akers went into the 9th right and located two (2) ^{Gods} men. There then remained one man unaccounted for and a crew from the Tennessee Coal, Iron, & Railroad Company entered the mine to explore the 4th right, not, however, ^{until} Mr. Ed. Husband and one other man had located the man in this entry. His report that ~~he~~ this man was still warm warranted a ^{crew} ~~party~~ going to him. The writer joined the party to within several hundred feet of the face without apparatus. *More efforts made to revive him?*

As a matter of precaution, Mr. Hamilton, Mr. Newby, and the writer joined a crew of men the next day in getting the bodies of two (2) men, one in the 8th right and one in the 4th ~~st~~ right. Apparatus was used in this work by representatives of the bureau.

Special mention should be made of the valuable work of Mr. Ed. Husband of Eureka, Ala., as the rescue of the one man, who was unable to leave the mine without assistance is directly due to Mr. Husband's work. *Body found before rescue*

The men composing the crews of the Tennessee Coal, Iron, & Railroad Company were Messrs A. R. Brown, J. W. Groves,

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John F. Meagher, J. M. McHugh, J. R. Brown, James Brown, Hugh Lynch, J. A. Rigney, Mike Dugan, Eurig Brandt, John Smith, Alex Gore, Francis Brawley, Ewel Brown, Thomas Williamson, and Thos. Wayne. In addition Drs. C. M. Carraway and W. S. Roundtree were on hand and rendered medical assistance where needed. There were other men attached to the Tennessee Coal, Iron, & Railroad Company's party who assisted in the transportation of apparatus and supplies.

The rescue and recovery work was under the direct supervision of Chief Mine Inspector, Mr. C. H. Nesbitt and the men of the Tennessee Coal, Iron, & Railroad Company were working under the orders of Mr. J. M. Groves and Mr. A. R. Brown. However, at the time Mr. Thomas Williamson became overcome Mr. Groves and Mr. Brown were in the 8th entry with Mr. Williamson and when the alarm was given the reserve corps was thrown, more or less, into a state of confusion. The writer and Mr. Hamilton immediately became engaged in assembling a relief crew and they proceeded to the assistance of the men engaged in recovering Mr. Williamson. Mr. Hamilton collected a force of men in the immediate vicinity and erected a canvass brattice across the slope to direct the air into the 8th Left and the writer hastened to the 6th Left for a pulmotor. On a whole the work was very systematically carried on.

J. F. Sullivan

1 body removed 3 R
4 bodies near 46



Correspondence

November 19, 1913

to

September 24, 1914

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON

November 19, 1913.

Engineer in Charge:

The following telegrams have been received by this office in the order given:

At 10:43 P.M.-

"Explosion Acton No. 2 mine near Helena; Pittsburgh notified, will advise. Sutton."

At 10:55 P.M.-

"Explosion Alabama Fuel Company Acton Alabama 40 men entombed; car has gone in charge of Hamilton Webb and Sutton notified. Wilson."

Please advise this office from whom you received the information regarding this explosion. It appears from your telegram that information was obtained from other sources than from Sutton. You state in your telegram that the car has gone to the scene of the disaster. Please inform me if this was not the automobile truck; also advise me who Hamilton Webb is. I assume that he is probably one of the men trained by Sutton or J. M. Webb at Birmingham.

Full detailed report should be received from Sutton as to the "time and source from which he received information regarding the explosion, the time consumed in going to the disaster, and the time ~~consumed~~ ^{consumed} in using the truck instead of the car, and in fact any information that would be of interest to the Secretary of the Interior, Mr. Underwood or Dr. Holmes regarding the use of the truck at the Birmingham station."/

Very truly yours,

Y. H. Manning

REFER TO

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON

OFFICE OF THE DIRECTOR

November 19, 1913.

Chief Mining Engineer:

I am enclosing a clipping from the front page of this morning's Washington Post giving an account of the Alabama mine disaster of last night. You will notice the third news heading "Rescue Parties at Work"; also that there is no mention of the Bureau of Mines.

I am not finding fault with anybody because there is no mention of the Bureau of Mines; my thought in reading the news column was that I would like to know how many, if any, of the men comprising these rescue parties were men who had received training from the Bureau of Mines.

Do you not think that the reports of the engineers of the Bureau should contain a record which would show the names and addresses of all persons engaged in rescue and first aid work at each disaster, distinguishing the helmet men who went down into the mine from those who served above-ground, and stating in the case of each person where and under whose direction he received his mine rescue or first aid training.

It seems to me that this information would be of value in various ways. It would afford a more accurate index in many cases of the real value of the Bureau's work at a particular disaster; and with this information with regard to a particular disaster in hand a better statement could be made, say, to the Secretary, in answer to any query from him regarding the work we had accomplished at such disaster.

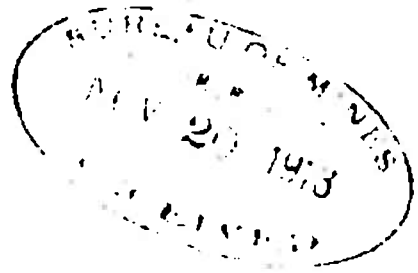
At the end of a year a tabulation of this data would be quite likely, I should think, to make a very creditable showing for the Bureau of Mines, and if so, could be used to good advantage.

Very truly yours,

Walter Manning

Mr. Rice

"The Glamorgan."



Jellico, Tenn. May 19 1913

Bureau of Mines

Pittsburg, Penna

Replying to your telegram received at 10:30 P. M. yesterday.

Long distance telephone message received from Mr. Sutton, through Mr. Taylor of the Alabama Fuel Co. at Acton, Ala. Stating that I would not be needed at Acton. Hence my reasons for not complying with the instructions in your telegram.

J. M. Webb.

Copy to Mr. Sutton

Birmingham, Ala.

November 20, 1913.

SUBJECT:- Mine disaster, Acton, Alabama,
November 18.

The Director:

Re the above:

I received by telephone at my residence at about 9.15 P.M., November 18, the following telegram from the Bureau watchman:

Birmingham, Ala., Nov. 18, 1913.

Bureau of Mines, Pittsburgh.

Explosion in mines Alabama Fuel and Iron Company, Acton, Alabama. Am on my way with rescue car. Will advise later.

H.H.Hamilton.

I have no further information regarding the rescue car referred to. The Bureau has no rescue car there other than an auto truck. I have not heard that the auto truck was used as it had just reached Birmingham and I doubt whether it was in service. I believe the above refers to the rescue car of the Tennessee Coal Iron & Railway Company, which car is always available for disasters for other operators and by the Bureau.

H. H. Hamilton is a miner and a sales agent of explosives, has been trained by the Bureau as a rescue man, and is carried on our records as a relief rescue man at Birmingham in absence of our foreman.

I immediately called the Associated Press, Pittsburgh, and they had the following only: viz., Explosion in mine Alabama Fuel & Iron Company, Acton, Alabama, near Helena, 40 men entombed.

Within a few minutes, about 9.41 P.M., I received the following:

Birmingham, Ala., Nov.18, 1913.

Bureau of Mines, Pittsburgh.

Explosion Acton No.2 near Helena, 40 men in mine at time of explosion. Will advise later. Washington notified.

Sutton.

I believe that Mr. Sutton's telegram must have been filed nearly as quickly as the others and must have followed them immediately, the little delay being due to my having the telephone in service after receipt of the first message from Hamilton.

11-20-13.

Immediately on receipt of the Hamilton and Associated Press messages and before giving up my wire to the Bureau for the Sutton message I sent the following at 9.30 or 9.40 P.M.:

Webb, Bureau of Mines, Jellico, Tenn.

Explosion Alabama Fuel Co., Acton, Alabama. Proceed immediately. Notify Sutton. Report movements.

Wilson.

Bureau of Mines,

Washington, D.C.

Explosion Alabama Fuel Co., Acton, Alabama, 40 men entombed. Car gone in charge Hamilton. Sutton and Webb notified.

Wilson.

After conferring by telephone with Mr. Rice I notified the Foreman at the Bureau, Mr. Raudenbush, to be prepared and get in touch by 'phone with Messrs. Delke and others in case of necessity. Further action seemed unnecessary in the judgment of Mr. Rice and myself, pending further information from Sutton. This was especially true in view of our knowledge of the well organized force of rescue men available in Birmingham, through training of this Bureau, including especially the regular rescue force of the T.C.I. & R. Co., under J. W. Groves, an ex-employee of the Bureau, and the further fact that we considered our District Engineer, E. B. Sutton, fully competent to handle rescue operations of the proportions indicated.

Next morning, November 19, at 3.00 A.M., the following received:

Birmingham, Alabama.

Bureau of Mines, Pittsburgh.

Six live men, twenty-three dead located. About forty in mine. Exploration about complete. No assistance needed. Sutton.

On the evening of the 19th G. S. Rice, Chief Mining Engineer, proceeded to Birmingham to participate in the investigation.

Very truly yours,



cc G. S. Rice
cc E. B. Sutton
→ Files.

Postal

H. M. Wilson

Engineer in Charge

Pittsburgh Pa. November 20, 1913.

Bureau Mines, Washington, D. C.

Sutton wires All bodies twenty-four recovered
yesterday indications point to windy shot considerable
violence.

WILSON.

J. R. [unclear]

November 24, 1913.

SUBJECT: Acton, Alabama, Mine Disaster.

The Director:

Re the above, and supplementing my previous report on the subject of how advice of this disaster was received and acted upon:


I have the following today from Foreman J. M. Webb, Jellico, Tenn., who very properly did not proceed to Acton per my telegraphic instructions:

"Long distance telephone message received from Mr. Sutton, through Mr. Taylor of the Alabama Fuel Co., at Acton, Ala., stating that I would not be needed at Acton. Hence my reasons for not complying with the instructions in your telegram."

Very truly yours,



cc J. M. Webb
cc File



DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

WASHINGTON November 24, 1913.

Mr. George S. Rice,
Hillman Hotel,
Birmingham, Alabama.

My dear Mr. Rice:

Inclosed herewith please find copy
of letter addressed to Mr. Paul, which is
selfexplanatory.

As I stated in a former letter the
Director desires you to return to Pittsburgh
via Washington. Upon the completion of the
investigation by Mr. Williams, he will return
to Urbana, via Washington. The Director
desires to see both of you.

Very truly yours,

Vance Manning

Incl.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

WASHINGTON November 24, 1913.



Mr. J. W. Paul,
Bureau of Mines,
Pittsburgh, Pennsylvania.

My dear Mr. Paul:

The Director requests me to inform you that it is his desire that you should proceed immediately upon your return to Pittsburgh, to Birmingham, Alabama, and relieve Mr. Rice in the investigation of the recent disaster at the Acton No. 2 mine near Birmingham. Mr. Williams will remain at Birmingham to aid you in this investigation.

Very truly yours,

David H. Manning

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

WASHINGTON

November 24, 1913.



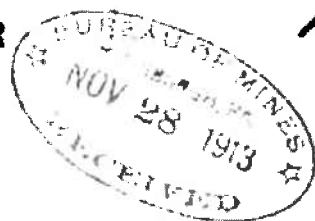
Engineer in Charge:

Please see that Mr. Paul gets the
attached letter immediately upon his return to
Pittsburgh, and inform this office by wire when he
returns and when he leaves for Birmingham.

Very truly yours,

Yack H. Manning

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES



IN ANSWERING REFER TO

No.

Jellico, Tenn. Nov. 26, 1913.
Mr. H. M. Wilson, Eng. in Charge
U. S. Bureau of Mines
Pittsburg, Penna.

My Dear Mr. Wilson:

Copy of your letter to the Director
relative to Acton mine explosion, has
been received.

I did not wish to disobey or dis-
regard your instructions in your tele-
gram of Nov. 18, I could not have reached
Birmingham, Ala. till 10:20 P. M. Wednesday
19.

There were ten men here in training
work and a number yet to be trained near
here, and I did not want to suspend train-
ing, and make the trip to Acton, Ala. unless
I could have reached the scene of the ex-
plosion in time to have assisted in the
recovery work.

Very Truly.

J. M. Webb

Birmingham, Ala. Nov. 27, 1913.

Director, Bureau of Mines, Washington, D. C.

In accordance with request of Mr. H. M. Wilson of Nov. 20, 1913.

On Nov. 18, 1913, I went to Wegra, Ala. to make investigation of the Pratt Consolidated mine at this place.

Mr. DeBardleben, Vice Pres. and Gen'l. Mgr. of the Alabama Fuel & Iron Co. placed himself in touch with Mr. H. H. Hamilton of the DuPont Powder Company as soon as he heard of the explosion at his mines and Mr. Hamilton, who knew that I had gone to Wegra, phoned me at this point.

Mr. DeBardleben also asked the Tennessee Coal, Iron & Railroad Company for assistance and it is safe to say that the hospital car of this company got under way before the truck of the Bureau of Mines.

The auto truck of this bureau was stocked and Mr. Hamilton, who received the news and had communicated with me, left Birmingham at 5.30 P. M. for the West End. He left for Acton, Ala. at 6.27 p. m. and arrived at Acton at 8.22 p. m. in advance of the car of the Tennessee Company. The trip was made over very bad road the greater part of the way and the delay of nearly five hours in getting to the scene of the explosion occurred in transmitting the news from the mine to Birmingham. I regret that I was out of the city but returned as soon as it was possible to do so, there being a wreck on the Frisco which delay the regular train several hours. I, however, arranged for having the Illinois Central fast train stop at Dora, Ala. and arrived at Birmingham at 8.00 p. m. Mr. Sam'l. Rand of the Jefferson Powder Company met me at the station and carried me to Acton in his machine, arriving at 9.15 p. m.

There is no doubt that, had the mine notified Birmingham of the explosion as soon as it occurred, ~~the~~ the auto-truck of this bureau could have reached the mine by six o'clock.

I asked Mr. Hamilton to notify Pittsburgh of the occurrence of the explosion which he did and I upon reaching the city supplimented his wire with wires to both Pittsburgh and Washington. I can not explain the delay in transmitting these telegrams as it appears from Mr. Wilson letter that both Mr. Hamilton's and my wire reached Mr. Wilson at the same time,, and an hour had elapsed from the time I placed the wire until it was received at Pittsburgh.

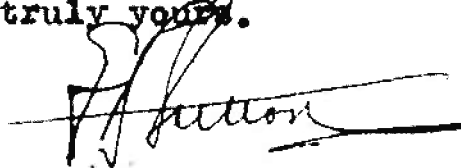
Upon arrival at the mine apparatus was in readiness and two pieces of apparatus was already in service by members of the Tennessee Company crew. Mr. Hamilton, Mr. Newby, and myself immediately entered the mine and became engaged in the work and also assisted in bringing to fresh air and reviving two men of the Tennessee Company that had been overcome while wearing apparatus of this company.

All bodies were located by midnight and I notified Mr. J. K. Webb, who had placed a long distance telephone call, that his assistance would not be needed.

The facts in this case have established the fact that the auto-truck, particularly in the Birmingham district, will serve the mining interests to a far better advantage than a car of the railroad type. The road over which the car traveled is one of the worse out of Birmingham and is located twenty-five (25) miles from the city.

So far as the truck being in condition to make the trip, I made it my business to place it in condition for immediate service immediately upon its arrival in Birmingham and the only thing that prevented it from reaching the mine sooner is the fact that the news did not reach Mr. Hamilton sooner. Mr. Hamilton is a valuable friend of the bureau and some recognition should be made of his valuable assistance. Mr. Hamilton is a competent driver and is always at the disposal of this bureau in time of emergency, as well as one of the best apparatus men in this district. However, he finds that driving the car at speed necessary and the nervous tension of the experience, rendered him unfit to wear apparatus for a period of possibly half an hour. In the future, I shall engage a driver for emergency service so that both Mr. Hamilton and myself will be in a condition to become engaged immediately in rescue service.

Very truly yours.



> cc Mr. H. M. Wilson.

442
Acton

November 28, 1918.

My dear Mr. Sutton,

As you will note from attached copy of letter ^{to} ~~from~~ Mr. Hamming, it is desired that in the case of the Acton disaster, as well as other disasters in your district, that you give the names of the men who used breathing apparatus, and who gave first aid; also the chief leaders in the general work of recovery. In this you had better consult with Mr. Groves.

In view of the delay there will be in making up the final report on the Acton disaster through waiting for analysis reports of dust and air; and also to enable a compilation of the notes gathered by you, Mr. Williams and me, to be made, please make up a separate report of the rescue and recovery work, as soon as possible. This can subsequently be incorporated in the final report.

Yours very truly,



c.c. Mr. Paul,
Mr. Wilson. /



442
Acton

November 28, 1913.

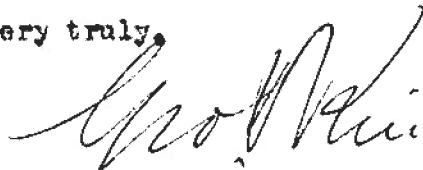
ACTON, ALABAMA DISASTER.

Director:

I received your letter of November 19, with clipping regarding the explosion at Acton, Alabama. The local papers did full justice to the investigations of the bureau, as you will note from the attached clippings. Naturally, as the T. C. & I. furnished two complete rescue corps of 5 men each, their work was important. Some of their men were originally trained by the bureau; Messrs. Groves and Angus Brown, (now Assistant Superintendent of the T.C. & I.) were former employees of the bureau. Mr. Groves has been instructing T. C. & I. men since that time. I think there were several other men in the various parties who had been trained by the bureau. I am writing to Mr. Sutton asking that he obtain the information that you suggest getting, and which I think is a very wise precaution, at least so far as it relates to the helmet men. I think it would be almost impossible to obtain a list of all engaged in the rescue work, such as bratticing, because sometimes there were as many as 40 or 50 or even 100 men engaged in such work, some of whom were in for a day or so, and are gone the next day. On the other hand, there should be no particular difficulty in getting a list of the men who used breathing apparatus, or who gave first aid to the injured.

With Mr. Paul's assistance I shall prepare a circular letter to send to the cars and stations on this subject.

Yours very truly,



c.c. Mr. Paul,
Mr. Wilson, ✓
Mr. Sutton.

P.S. Mr. Paul brings to my attention that he has already prepared a printed form to be used in rescue work at disasters, which would cover the points raised by you.



447
Acton

December 3, 1913.

Mr. H. H. Hamilton,
DuPont Powder Co.,
Birmingham, Ala.

Dear Sir:

My attention has been called by Mr. E. B. Sutton to the splendid cooperation and assistance you rendered on the occasion of the mine disaster at Acton, November 18. I have also been informed previously of your assistance and cooperation on other occasions, and have been aware of the same from personal information, and take, therefore, this opportunity to express to you, on behalf of the Bureau and for myself in particular, our hearty appreciation of the splendid assistance you have rendered. It is a rare thing that a man engaged in another pursuit, as you are, trains himself for emergency work with breathing apparatus at mine disasters and voluntarily runs the risks involved in such work, as you have done on several occasions during the past few years.

With best regards, I am,

Very truly yours,



Director.

9
c.c. E.B. Sutton
c.c. files.

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Birmingham, Ala. Dec. 6, 1913.

My dear Mr. Rice:

Yesterday afternoon, Dec. 5, I called at the office of Mr. Chas. F. DeBardleben to secure of him a copy of the last report made by the Mine Inspector concerning the condition of Acton #2 mine. He was indeed very courteous to me and stated that he was going that evening to attend a meeting of his superintendents, mine foremen, and firebosses at Margaret, Ala. He extended me an invitation to join him which I did. The trip which was made in his machine over thirty miles of excellent roads and on a fine afternoon, seemed to relieve him of many of the worries of the past few weeks and he talked very liberally of most everything. He was elated over the fact that he has settled all his claims except two and I think he is to be congratulated upon his liberality. He gave all negro widows 50.00, the parents of all single whites \$1500.00, all white widows with one or no children \$2000.00 and all other widows \$2500.00.

X In the course of the conversation, Mr. DeBardleben volunteered the information that he was greatly surprised to find the other day among other checks, your check, leaving the impression that he thought you were not prepared the afternoon you left Acton to write a check and that he thought the plan of charging Mr. Fies with this amount would be the most convenient to you. Later when you were again settled you could reimburse Mr. Fies. This seems to be a logical argument in explanation of the way this matter was handled, for if he had given these instructions to his office man, this man would not have dared to do otherwise. This is what I learn of Mr. DeBardleben. I thought this information may interest you.

Ten men sat down at an elegant dinner served in the home of Mr. I. C. DeLoney which was followed by discussion of policies for greater safety in the mines of the company. Mr. DeBardleben devoted most of his talking to matter he proposed to carry out in the future, chief among which were no more cracker shots, no more solid shooting, and no further use of black powder. He further expressed the desire that all his men take the training given by the Bureau of

Mines and that he proposed to place at Margaret six pieces of some approved type/apparatus, so that, as he expressed it he could be of assistance to himself and neighbors.

I promised him that I would come to Margaret the first two weeks after the first of the year and also spend one week at Acmar later. I believe that, if a friend can be made of Mr. DeBardleben, ~~th~~ he will be a valuable friend to the bureau and I would ask that you arrange that sufficient money be set aside, if the appropriation is running low, to fill this promise.

I am addressing this letter personal as I think there are some matters in it that are of a purely personal nature.

Very truly yours.

A handwritten signature in dark ink, appearing to read "J. H. Sullivan". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

EXPERIMENT STATION, PITTSBURGH, PA. December 6, 1913.

ACTON MINE REPORT.

Mr. R. Y. Williams,

I received your notes on the Acton mine, for which I thank you.

I presume that you sent a copy to Mr. Sutton. If not, please advise.

Do not forget to visit Gillespie on December 9.

Yours very truly,

Geo. H. Rice

Copy sent to E. B. Sutton

I am attending Gillespie Dec 9.

R. Y. W.

Mr. Rice

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Birmingham, Ala. Dec. 7, 1913.



Mr. Geo. S. Rice:

On Monday Dec. 1, 1913, I went to Acton and gathered samples of road dirt, rib dust, and caked coke as suggested by you. Due to the fact that the supply of report cards of this office had been completely exhausted or else there never had been any sent here, I could not make report of these samples until cards could be sent from Pittsburgh. However, these cards went forward on Dec. 5, 1913.

On Nov. 28, 1913, I collected samples of mine air in the rooms at the face of 8th Left and in the rooms mining verticle coal in 9th right. These were mailed and cards to correspond Nov. 29, 1913. These air samples were stationary samples as you suggested.

Normal ventilation had not been restored at the mine on Friday Dec. 5 in the lower entries, but I propose to go to Acton Monday Dec. 8 to collect return samples from 8th Left, 9th Right, and the main return.

Very truly yours.

Handwritten initials "GMR" in dark ink.

A handwritten signature in dark ink, appearing to read "F. H. Burton".

Mr. Rice

December 10, 1913.

Director:

I am transmitting, herewith, report of rescue and first-aid work in connection with explosion at Acton Mine No. 2 by Mr. E. B. Sutton.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'GSR', is written below the typed closing.

December 10, 1913.

ACTON MINE REPORTS.

Mr. Sutton,

I transmit herewith laboratory reports 4509 and 4510 covering analysis of mine air samples taken by you at the Acton mine.

They are evidently duplicates. I cannot account for your not having more than $\frac{1}{2}$ " cap, as apparently the mixture was explosive. It would seem that you must have obtained the sample higher than the point at which you tested with your lamp. Always remember that the Wolf lamp draws its air from the bottom. When was the sample taken?

It would be very desirable hereafter to always state the time of sampling, although there is no place for it on the form.

I am sending these reports in duplicate so that you may transmit copies to the operator with proper caution. Generally we send them direct where there are dangerous conditions, but in this case this may have been only a temporary condition.

I would like to know whether there was a considerable body of this gas or only a little. You do not give any clue. Always state how far from the roof the sample was taken; whether there was any air moving, and whether there was any considerable body of gas which you were sampling. In such cases give the general dimensions, like, for example, 'Sample gathered 1 foot from roof; a large body extending up the raise full width of room, 20 feet wide extending back 20 feet from face; or even more detail.

c.c. Burrell.

Yours very truly,

December 10, 1913.

ACTON MINE DISASTER.

Director; -

I think I made a verbal request that you thank Mr. H. H. Hamilton of Birmingham, for his kindness in taking charge of the auto truck, and in doing valuable service at the Acton mine on behalf of the bureau.

This is merely a reminder.

Yours very truly,

A handwritten signature in dark ink, appearing to be "G. S. R." with a stylized flourish at the end.

December 10, 1913.

ACTON MINE DISASTER SETTLEMENTS.

Director,

I inclose herewith copy of a letter received from Mr. Sutton, with the exception of one paragraph which refers to some personal cash transactions.

You will note the terms of settlement which have been made with the relatives of the victims. I am free to say that I am astonished at the liberality of the company.

Further referring to the subject of compensation, about which you asked me when here a short time ago, I overlooked telling you that in former days the companies with which I was connected used to expect to pay about \$500 to a widow, and to assist her as far as possible until she might re-marry. Usually the assistance took the form, if she opened a boarding house, of sending her boarders, and seeing that the boarders paid her their bills, etc. These companies never had the misfortune of having a very large disaster, so that, as far as I know there were no real cases of want, the company exercising a paternal supervision. Later on the settlements were generally made on a somewhat higher basis, or about \$1000. This was up to 1908.

I hope you will be able to get some good information from Mr. E.T. Bent. If you do not have anyone to inquire from in Colorado, we can easily get the information, I think, through Mr. Welborn and Mr. F.C. Osgood.

Yours very truly,

incl.

Mr. Paul

December 12, 1913.

amp

ACTON MINE DISASTER REPORT.

Mr. E. B. Sutton,

Referring to your report of rescue and first aid work in connection with the explosion at Acton mine No. 2, this report is of great interest, and is generally well written, but I want to point out a few things which may make it desirable to revise, or enlarge the report:

(1) It is advisable to put in a short statement giving the date of the explosion, and the hour of the day, the number of men who were in the mine, the number of men who were lost, and the number of men who were recovered by the rescue parties (a) unequipped; (b) equipped with breathing apparatus.

(2) State when the notice reached you, where you were at the time, and the purpose of your being there, which in this case was at ~~some~~ one of the mines of the Pratt Consolidated Coal Co. for investigative purposes. I do not recall the name of this new mine.

(3) When Mr. Hamilton received word about the disaster, and the time of leaving the station. You might state when the Tennessee Coal, Iron & R.R.Co. car left its station at Pratt City (?)

In the third paragraph of page 1 of your report it would be well to give the name of the man who was found alive, and state what happened to this man after Mr. Hamilton left him to return into the mine.

On page 2, after the second paragraph, it might be well to make a statement about the number of men who had come out of the mine alive at that time, the number and names of the men who had been brought out by the rescue parties and revived (if you can get the names); and the number of bodies brought out.

In the third paragraph of page 2, you state: "It was also known that 4 men worked on the 4th left; one of these made his escape, and the others were found dead on the slope at its entrance." If I understand the conditions rightly on this enter, this should read about as follows:

"It was also known that 4 men were on the 4th left, one of whom was found unconscious by one of the early (?) rescue parties, and brought to the surface where he recovered. The other 3 had been found dead near the mouth of the entry. Their bodies had (or had not) been brought out."

In this same paragraph you say: "One man was missing on the 4th right, and this entry was peaced as it was thought that live men might still be in some of the lower entries." Do I understand by this that it was thought that there was a chance of recovering a larger number of men by pushing

the work further down into the mine?

Again in this same paragraph you state that "a man had made his escape from the 7th left and was rescued by the volunteer miners at the 5th left." If I understand where he was found, it was in the manway near the junction of the 5th left. It might be well to speak of this. I think that he did not need first aid treatment. It would also be wise to state that he had been found and brought out into the mine by one of the first rescue parties prior to the arrival of the crews with breathing apparatus.

In the 1st paragraph of the 3rd page you state "The man who had effected his escape from the 7th left reported that he had passed two men in the manway at the 6th left." Were these men down at the time he passed them? If they were it might be well to state that he passed "2 bodies" or "2 men overcome."

In the 2nd paragraph there are several omissions and errors I think. You state: "The rescue work, therefore, narrowed itself down to entries 4th left, 6th left, 8th left, 8th right and 9th right." "6th left" is evidently in error. Should you not also add "4th right and 6th right?"

In the next sentence you speak of the crew of the T.C. & I.R.R.Co. exploring the 6th right first to a point where the men were found (it might be well to state, 'where 5 bodies were found.') You then go on to say "They next went to the 8th left" It would appear that you must have overlooked the 7th left, where according to my notes a body was found near the entrance.

I think you had better enlarge a little on the ~~struggling~~ overcoming of the rescue party in the 8th right, and by the way, where a man was found cold in death it might be well to state "a body was found" rather than a man, as that gives a more definite meaning, and saves explanation as to why first aid was not used. Mr. Groves told Mr. Williams and myself that the party had been in to where the body was found, and was coming out when Mr. Williams was overcome. In that connection it might be well to explain that the T.C. & I Co. tried to use 5 in each party. They carried Mr. Williams for a distance of a couple of hundred feet or so, and then while resting Mr. Keager stated that he would have to hurry out. When he had entered with the party he had found that the facial cushion would not stay pumped up, so that he had to keep pumping it up with the left hand. Perhaps he may have forgotten to do this, and the cushion may have become deflated. Mr. Keager told the others in the party that he was going out for assistance, evidently thinking that the others were somewhat overcome, which Mr. Groves stated was not the case. Then Mr. Groves and the two others carried Mr. Williams by taking hold of his legs, and each side of his body, carrying him out to a point a couple of hundred feet from the entrance, where they were met by men who had been notified by Mr. Keager. Mr. Keager had come out in quite bad condition, and had lost the use of his limbs. I understand that he had given the impression to the others that the party was all in bad condition, whereas Mr. Groves stated that this was not the case, and that they were simply working along slowly from point to point with Mr. Williams, who was helpless. Mr. Groves did not seem to give any very good reason for Mr. Williams being overcome, except that he was

E.B.Sutton, 12/12/13

perhaps not in good condition, as he thought his apparatus was in good shape. If you have any further facts in this matter I think it would be desirable from the standpoint of the bureau, to report them.

Mr. Groves informed me that all of the T. C. & I. apparatus was of the Draeger 1907 helmet type. It appears also that the T.C. & I. Men do not train regularly with breathing apparatus, which he, Mr. Groves does not ~~apparently~~ appear to consider important, or else is simply defending a situation which he cannot remedy.

In the 2nd paragraph of page 4 you state "A (second?) crew of the T.C. & I. entered the mine to explore the 4th right, not, however, until Mr. Ed Husband and one other man had located the man in this entry." Was this exploration made with the bureau breathing apparatus. His report that this man was still warm warranted a crew going ^{to} ~~with~~ him. The writer joined the party to within several hundred feet of the face without apparatus."

It would be advisable to explain further. The body was found half way in, was it not? It might be well to state what efforts were made to revive the man by first aid, as in the previous sentence it leaves it uncertain.

In the next to the last paragraph on page 4 you state: "Special mention should be made of the ~~very~~ valuable work of Mr. Ed Husband of Eureka, Ala. as the rescue of the one man who was unable to leave the mine without assistance is directly due to Mr. Husband's work." Which man was this; mention his name and state how he was taken out, either at this point, or by referring to him by name perhaps in the first part of the report. Has Ed Husband any experience with breathing apparatus, and did he use it at any time?

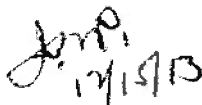
In concluding my remarks, I might mention that it would be well to specify about the 5 bodies, making up the 24; one was recovered in the main slope near the 3rd right, and the other 4 near the 4th left. It might be well to mention these when you are speaking of the work that had been done by the exploratory party.

Yours very truly,



P.S. As soon as you can I wish you would send me a copy of the map of Acton mine so that I can properly work up my notes.

c.c. Director
Mr. Paul



DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

EXPERIMENT STATION, PITTSBURGH, PA.

IN ANSWERING REFER TO

No.

December 12, 1913.

Mine samples from Acton No. 2 mine,
Alabama Fuel & Iron Co., near
Helena, Ala.

File
JMP
12/15/13

Chief Chemist:

The following is a report of an examination of mine samples 21739 and 21599 taken by Mr. E. B. Sutton on November 28, 1913 at Acton No. 3 mine of the Alabama Fuel and Iron Company, located 6 miles northeast of Helena, Shelby county, Alabama.

Sample 21739 was designated: "Residue resulting from explosion of keg of powder in box at room 15, 8th left; sampled by scraping residue from sides of box; to determine ingredients of residue."

This sample appeared to consist largely of coal and contained splinters of wood, etc., which were picked out before the sample was ground. The sample was air-dried, ground to pass an 80-mesh sieve, and 15 grams extracted with cold water, then with ether, then with dilute hydrochloric acid, and finally burned to determine ash.

Results:	Water-soluble material	13.18 percent
	Acid- " "	3.79 "
	Ash	11.79 "

Analysis of the water extract showed the presence of the following:

Sodium carbonate	76.49 percent
" sulphate	9.31 "
" nitrate	0.48 "

Small amount of sodium thiosulphate and organic material.

The ether extract was small and was found to contain free sulphur.

The acid extract was chiefly iron sulphide and oxide.

These results are what would be expected from the residue collected after the explosion of a keg of black blasting powder. The water-soluble portion apparently consists almost entirely of the soluble products of combustion of black blasting powder. The coal in the sample probably fell into the box from the roof or walls of the room at the time of the explosion.

The presence of a small amount of sodium nitrate and free sulphur indicates a small amount of unburned powder.

Sample 21599 was designated: "Dust taken from shot hole No. 2, room 17, 8th left; scrapings from blown-out shot hole; to determine presence of burned powder."

This sample appeared to consist of clean coal in particles ranging from about 1/2-inch size to fine dust. There was no visible evidence of foreign material. A water extract of the air-dried and powdered sample was made and tested with the following results:

Total water-soluble material in sample 0.48 percent

Analysis of water-soluble material:

	<u>Percentage of water-soluble portion.</u>	<u>Percentage of total sample.</u>
Sodium carbonate	49.16	0.24
" sulphate	19.90	0.10

These results are sufficient to justify the conclusion that the sample contains products of combustion of black powder, and that therefore a blown-out shot had been fired from the shot hole from which the sample was taken. Sodium carbonate and sulphate in even these small quantities do not occur normally in coal, and are characteristic products of combustion of black blasting powder.

To confirm these results, however, a sample of coal taken from the same mine,--laboratory No. 18224, marked "finest coal shot from face of 8th left, Act/on No. 2",--was obtained from Mr. Fieldner and tested in the same manner as the above sample.

Results:	Total water-soluble material	0.10 percent
	Sodium carbonate (total alkalinity)	0.02 "
	Sodium sulphate less than	0.01 "

Conclusions:

Sample 21739 contains large amounts of residue from the combustion or explosion of black powder, and a small amount of unburned black powder.

Sample 21599 contains small amounts of products of combustion of black powder.

I suggest that in the future when samples of scrapings are taken from drill-holes to be submitted to test for the presence of products of combustion of explosives, an additional sample of scrapings should also be taken from a freshly drilled hole not far from the hole in question, in order that we may have for comparison a sample known to contain no products of explosion.

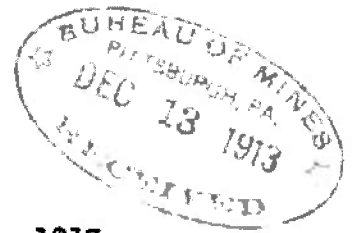
cc Mr. Rice Mr. Paul ~~XXX~~ Yours very truly,
Mr. Sutton CGB

Obstorn. Yank

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

WASHINGTON

December 12, 1913.



CHIEF MINING ENGINEER:

Replying to your note calling attention to the verbal promise of Dr. Holmes to write to Mr. H. H. Hamilton.

You are referred to his letter of December 3rd, prepared by Mr. Wilson, addressed to Mr. Hamilton, thanking him for the assistance which he rendered at the Acton mine disaster.

Very truly yours,

Task Manning
when action of the Bureau is
desired forward him the
"finished product."

Mr Rice

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Birmingham, Ala. Dec. 15, 1913.



Mr. Geo. S. Rice:

In reply to your letter of Dec. 12:

I have rewritten the report of rescue and first-aid work performed at Acton, Ala. and have tried to correct the errors and include the omissions pointed out by you. In other words, I know more now how it is expected these reports should be made out and the next time, I am sure, I will render a more creditable report.

I have not been able to secure a map of the entire mine, with recent surveys. However, I expect to receive a map of this character soon and will send you one. I enclose you herewith a map of the exploded area which I hope will meet your immediate needs.

A doubt arises in my mind from your post script to your letter. I understood you to state when I left you on the evening of Nov. 25 that you expected me to make a full report of this explosion.

Mr. Rice, I am exceedingly proud of myself to be ranked as a district engineer in the bureau, more particularly so since the other engineers are whom they are. I want every bit of assistance from Pittsburgh that will enable me to make good, for I am so anxious to make good, and to conduct the affairs of this district in a way that will compare favorably with others.

Very truly yours.

A handwritten signature in dark ink, appearing to read "J. H. Wilson".

Mr. Paul J. M. P.
Mr. Wilson ✓

Mr. Rice

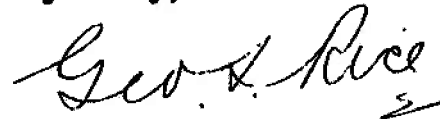
8-228

December 17, 1913.

REVISED PRELIMINARY REPORT: ACTON MINE DISASTER.**Director:-**

I am transmitting herewith a revised report of the rescue and first aid work at the Acton mine, submitted by Mr. E.B. Sutton. This revision is the result of my comments on the first report submitted by Mr. Sutton, and I think is now in much better shape.

Yours very truly,

A handwritten signature in cursive script, reading "Geo. L. Rice", with a small horizontal line under the name.

c.c. Mr. Paul, ✓
Mr. Wilson.

Pittsburgh, December 17, 1913.

Mr. Paul,

Referring to Mr. Sutton's report, I have made a few minor corrections, but in general I think the report is very good. If, however, you have any further inquiries to make, please let me know.

G.S.Rice,

December 17, 1913.

Mr. E. B. Sutton,

I received your revised report of the Acton explosion, and have forwarded copy to Washington. There has also come to this office a preliminary report on the new form (6-809) I presume you have also sent a copy to the Washington office. If not please advise.

Yours very truly,

On page 1 of revised report I have made the following insertions:

Near bottom of page it now reads: "He engaged a taxicab and left Birmingham for the bureau rescue station at West End at about 5:50 p.m. to get the auto truck, and had returned with it to the Brown-Marx Bldg."

On page 2, 4th and 5th line:

"but were delayed by assembling their rescue corps men until about 7:00 p.m. The rescue and hospital car,"etc.

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Birmingham, Ala. Dec. 18, 1913.



Mr. H. M. Wilson:

Replying to your circular letter 54.3-26:

In the in-stance of the Acton explosion, it was my understanding that Mr. Rice would make preliminary report to the Director in person. This no doubt was done and Mr. Rice subsequently asked for a preliminary report concerning rescue and first-aid work to be prepared. This I did and forwarded four copies to Mr. Rice.

Very truly yours.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Birmingham, Ala. Dec. 30, 1913.

Subject: Aston Mine Report.

Mr. Geo. S. Rice:

In reply to your letter of Dec. 10 just received:

I received 4 letters today which were marked by post office employee "Not in Directory". This, no doubt explains the delay in receipt of this letter and also the one with reference to translation of Miners' Circulars into foreign languages.

Unless I am mistaken, altho I am not sure, I pasted on report cards in the upper right hand corner the date on which the samples were taken. These samples were taken, as you suggested, in the high verticle coal and in the last cross cut between rooms *Van J 3* on the left side of the 9th Right entry. It has been my understanding that no comparison between the length of cap and the ultimate analysis were made, but that the length of cap was simply information for the analyst so that he would know the probable content of the sample. I stated an observation of a half inch cap so that some idea of the content may be expected. My lamp certainly showed a much larger cap for it was at times completely filled with flame, not, however, receiving a knock-out.

These samples were taken on Dec. 1, 1913.

You will recall, at the instance of your examination of that portion of the mine working the verticle coal in the rooms to the left of the 9th Right entry, that but little gas was encountered. At the time of taking these samples, a considerable quantity had accumulated, I would say fully ten feet above my head and of considerable area of cross section. Ventilation was just being ^{fully} restored, men being thus engaged while samples were being taken.

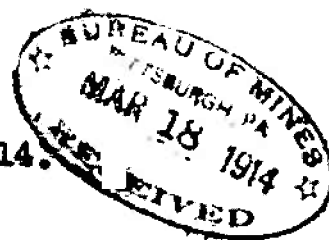
Mr. Rice

J. H. Sullivan

P. S. It will be well to have your typist address communications to West Bldg. Birmingham, Ala.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Birmingham, Ala. Mar. 16, 1914.



Mr. Geo. S. Rice:

In reply to your letter of Mar. 14:

I am handing you herewith that portion of the Acton report that I have typewritten, having prepared four copies. This is matters of a general character and I thought that you could criticize it and return same before any more be written. In the mean time I can be preparing the balance for your inspection.

There is a great deal of drawing to go with this report and I would rather make these than send rough sketches as possibly I could perform this better than try to explain to a draftsman. Moreover it will make a better looking report when finished.

Very truly yours.

A handwritten signature in cursive script, appearing to read "F. J. Hillman".

ANSWERED

MAR 19 1914

G. S. RICE

March 19, 1914.

ACTON MINE EXPLOSION REPORT.

Mr. E. B. Sutton:

I received your letter of March 16 with enclosed portion of the Acton report, which I am returning herewith with a few comments.

In general, I think it is quite good. As I wrote to you the other day, I find that I can not do much with the Acton report and, therefore, relying on you, I am sending to you by registered mail my field notes of the Acton explosion, and direct your attention to some tentative conclusions on page 40. I also sent a summary of the mine air samples which I think make much more satisfactory presentation than the analytical reports which are rather awkward to compare one with another. I also am sending a set of copies of the inflammability reports by Doctor Clement and a summary which I have made of the results of the tests. I am sending you five or six copies of these, so as to save you the trouble of having them rewritten. The interpretation is as follows:

The fresh coal dust from the face shows inflammability practically equal to that of the standard Pittsburgh coal dust. The samples gathered near a part of the 8th Left entry all show high inflammability. The samples in the 6th and 7th Lefts show either no inflammability or very slight inflammability, probably not enough to propagate an explosion.

I have found in studying the inflammability results that the nearest relation that can be established to the analytical results is the ratio with the B.t.u. of coal or coal mixture as received. Generally, when the B.t.u. falls below 10,000 it has little inflammability. At the same time, I do not mean to indicate that this is the lowest limit where a dust mixture is exposed to a strong preliminary explosion, since I found at the Experimental mine that when we have started a very long explosion giving 50 pounds and upwards, we can obtain a propagation through a mixture containing 55 per cent ash. This was a matter of great surprise to us and I call on dust mixtures to render coal dust inert, we have had to change our ideas; nevertheless, a mixture with 50 per cent ash appears almost impossible to ignite, as far as we have shown, direct from the blast but if the mine is gaseous and there is likely to be a strong igniting explosion such as might be given by 300 feet of fine dry coal dust or by gas, the propagation might ensue throughout the mixture up to one containing 70 per cent of ash.

Regarding the samples collected, I called your attention that you were a little scant in the number of samples of dust; it would have been better if you had them from both sides of the mine in order to make it more comprehensive, that is apparently there were only seven samples of dust collected and ~~in~~ in cases of explosions of the magnitude like Acton, it would have been better if you had taken at least a dozen along the border line where the explosion died away in the respective entries.

In regard to the matter of firedamp, I think your statement a good one although when you state the amounts in pure methane, it seems so small that I think it is generally better to multiply by about 18 to obtain a mixture which would give the lowest explosive limit as this is a critical condition. In the conclusions, I think it will be well to emphasize the matter of gas something like the following, which I will not attempt to put in exact language which will fit in your report:

"While this mine is not to be termed a gaseous mine and in general the quantity of gas it makes is very small, yet, under the natural conditions of working, there are great elements of danger due to these causes; namely, the working faces are going to the raise so that any gas is apt to accumulate in pockets, and unless the greatest care is used a small quantity of gas may accumulate ~~very often~~; then as the coal appears ~~to be~~ naturally dry, as worked in places going to the raise, there is a large amount of fine dust produced particularly since the coal is sliding along the floor and this abraded produces fine float dust. Any moisture that the rooms may make runs off quickly owing to the pitch. In general, it was found that the rooms were very dry and the conditions very favorable to propagation of an explosion once started, even by a small pocket of gas but particularly by a shot firing. Such mine should, without question, use only permissible explosives.

It is very easy to misjudge a mine of this character as regards its safety as one walks along the levels; these levels are apt to collect more or less moisture and appear quite damp, but it will be found from time to time there is a sifting out of fine dust from the rooms when a strong blast occurs, or, by the action of a number of shots this fine dust slips down on the smooth floor and to some extent comes out on the entries. If there is a preliminary explosion, the action is sufficient to bring up this fine dust into suspension along the entry and a propagation may ensue through that portion of the mine that appeared before the explosion to be very wet and safe. In other words, the ~~chutes~~ going to the raise present serious difficulties in making the mine safe and the only solution appears to be ~~only two means by which this matter can be properly handled. One is~~ in Utah where the State laws require that the rooms shall be washed down with hose and, there are heavy pitching

by one of several

that is employed

In this state

Mr. Sutton.

-5-

2-19-14.

seams in Utah like at this mine. Since this has been required in Utah, there has been no explosions; but previous to it, there was a disastrous explosion at Winterquarters in which 300 men were lost. ~~The~~ other means which should be adopted in any case is to employ permissible explosives. A third measure or precaution would be to employ portable electric lamps. The bureau realizes that it is difficult to require safety lamps in Alabama and other parts of the country where the men are not trained to their use, and particularly difficult in the pitching seams, but the permissible electric cap lamp meets the objections raised against the dangers of safety lamp. The use of such electric lamps would not do away with the necessity of requiring close inspection by fire boss but with a mine which makes comparatively little gas and yet dangerous in places a regular careful inspection would appear to be sufficient. *and the electric lamp would prevent many ignitions*

I hope you will be able to get up this report in good shape and supplement it with maps which will display the explosion in proper manner. I am inclined to think that it may be a good plan to indicate on the maps where fire was noted, and it may be a good thing to have a supplementary map which will show the extent of the explosion by red lines or red wash.

Very truly yours,

G. S. Rice

of Mining Engineer.

April 6, 1914.

Dear Mr. Sutton,

Before Mr. Rice left the office for the mine, he requested that I return your notes on the Actén explosion, on which he has made some hurried suggestions, as he has been too busy to devote as much time to it as he would like to. He stated that he thought it well for you to watch in your writings to make the sentences short and concise, with as simple English as possible, using paragraphs freely, with side headings, so that an index can be made.

Yours very truly,

A handwritten signature in cursive script, appearing to read "A. F. James".

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DEPARTMENT OF THE INTERIOR

BUREAU OF MINES,

Birmingham, Ala. April 24, 1914.

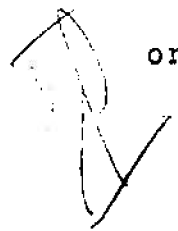
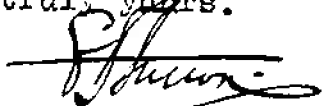
Mr. Geo. S. Rice:

Under separate cover I am sending you drawing for the Acton report and these with map of the effected area will comprise the drawing for this report. Figures 6 to 9 are introduced to show conditions in the neighborhood of the origin of the explosion and the manner in which the holes were placed. I hope that these represent your ideas concerning this area.

I would like six prints made, one for each of the five copies of the report and one, with your permission, for Dr. J. J. Rutledge who is interested in ^{the} ~~the~~ matter of misplaced holes. If you will have them mailed to me at Knoxville, Tenn., with a notation on the outside "Hold till called for", I will appreciate it. I will be in Knoxville May 1 and 2.

I have not received from you the last portion of the report mailed you April 12. Not having received a reply to my inquiry of that date with reference to how you desired the map of the mine prepared, I have about finished a map, 50' to the inch, and this will make a drawing 24"x34". This will be rather mean to bind and it may be that a photograph may be made of it on an 8"x10" plate.

Very truly yours.



DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Birmingham, Ala. April 12, 1914.



Mr. Geo. S. Rice:

Herewith last portion of the Acton report.

Under detail of evidence, it will be noted that some of the paragraphs are rather long. This is merely a statement of fact and a division into paragraphs may be made almost any place so as to make the report less tiresome. This I will do when I prepare the final report.

Will it be necessary for me to send tracings to Pittsburgh in that blue prints may be made or may I have this work done here?

To make a map showing all the workings effected by this explosion and all the evidence, on a scale of fifty feet to the inch, will necessitate a very large blue print and this will not bind neatly in a report. I had in mind of preparing smaller drawings of two entries each. This can be done on a piece of paper the width of the ordinary letter head and altho it will be longer than a letter sheet, it can be neatly folded. These drawings can be designated "A, B, C etc" with reference to a small plot of the entire mine. The only objection to this will be that a composite map of the mine from which, at a glance, the direction of ventilating currents, travel of the explosion, and the extent of the same will not be available.

I shall be pleased to know what you think in this connection.

I shall be pleased if you will let me have these notes as soon after you have looked them over as possible.

Very truly yours.

A handwritten signature in dark ink, appearing to read "S. J. Sullivan". The signature is written in a cursive style with a large, sweeping initial "S".

May 9, 1914.

Mr. E. B. Sutton,

I am sending you herewith 6 copies of prints in connection with the Acton explosion, as follows:

E. 34, 40, 41, 42, 43 and A.91

I have retained one set, and believe you asked for a set to be sent to someone, but the memo seems to have been lost. There. you may send it direct.

Yours very truly,

May 21, 1914.

ACTON EXPLOSION REPORT.

Mr. Sutton,

I have just returned from the Eccles disaster investigation, and find your several letters. I will be unable to go over the Acton report for a few days. Meantime, however, go over it yourself and finish up all the other work as far as you can. You must realize that I have been very little in my office during the last month and a half.

Yours very truly,

I believe the Acton blue prints were sent on a few days ago.

July 21, 1914.

Mr. E. B. Sutton,

I am returning to you herewith the balance of your manuscript on the Acton explosion. I greatly regret the delay in returning this but I have been so crowded that I have not been able to give it earlier attention.

I particularly recommend that you use as short sentences as you can, and make them as crisp as possible; also that as far as possible you use the correct synonym. For example, I notice that you have frequently used the word "moved" where it seems to me it was rather ambiguous, or at least not sufficiently definite; that is, in cases where violence was concerned you might use the word "thrown" "forced" or "blown" as the case may be.

It is possible that owing to the delay that has taken place that I have overlooked some certain matters, but in that case I trust you will bring them to my attention. As far as you can, complete this report yourself, as my time is so very limited.

Yours very truly,

July 25, 1914.

My dear Mr. Sutton:

I am very much chagrined to realize how long I have delayed the Acton report. The work has been quite overwhelming. I finally have been over it and as you note with a good deal of care, in fact, perhaps after you have reviewed my corrections and checked where I put question marks, it will be ready for rewriting. I want to call your attention to a number of things which really made my reviewing very much slower than normal:

First, to the use of the terms "outbye" and "inbye". Apparently you have used these in a double sense as the meaning which the bureau has adopted from them is that wherever you are proceeding along an entry or room towards the head or face, outbye means towards you and inbye away from you in the direction to which you are going. This is without regard to the position of the entry or room through which you are travelling. You will find that it works out consistently and the minute you divert from it, as you have done and used it to indicate the position with reference to the mouth of the mine or outcrop, it introduces complications and ambiguities. I would never have been able to work this out had I not been familiar with the mine and the explosion. In any case it will be necessary for you to go over all the corrections carefully as, in many instances, I have been uncertain about these and other features.

You use the term "engate". It is something which I never heard before and although it may be the term for "end gate" or "end-gate" in the Birmingham district, it is not generally current and as our reports are for all the districts we should avoid any local peculiarity.

I note that you use the term "ensitue" which is evidently intended "in situ"; while this may or may not be good French, it is what has been used in some previous publications of the bureau. Personally, I do not care very much for it, although it is a phrase much used by Mr. Rutledge; the English phrase is "cook in place" but I have no serious objections, if you like it use the term "in situ".

I notice you use the word "hole" very extensively for "break-through". It is true that everyone speaks of the holing through but where it is referred to as a crosscut I think it is not a good term as ordinarily the hole means something else than a break-through for air. Crosscut is used in many parts of the country where the break-through is out by hand or machine although, as you are aware, in metal mining it means something quite different, ~~working within the combination~~, that
viz, driving across the formation.

Mr. Sutton.

-2-

7-25-14.

forced mining
~~is it means crossing it~~ but the term is so ~~well shaped~~ *much used* I have ~~not~~ no objections to it ~~at all~~ and having had my earliest experience in the West, I use it more freely myself.

I notice that you use the word "plaster" coke, which I do not think is a good term. It is becoming the custom of the bureau to use the following terms in relation to coking:

Coke in situ

Coke crusts

Coke globules

Granular coke or coking ~~particles~~ *ed* when it is very

and where the dust is slightly fused on the edges and *here* ~~it~~ *(fine.)* is only incipient coking, charred dust.

There are other features which I have corrected or changed which will be apparent to you as you go through the manuscript. I do not want you to think that I am infallible in English and if there is any questions which you wish to raise, I would be glad to give them further consideration and take them up with others.

There are some forms of expression that you use considerably which I do not think are good, namely, "burned dust". Now if dust is burned ~~and~~ it is manifestly ~~shown~~, the dust could not be seen. Another is where you use the term "recognize". It does not seem to me that this has the right shade of meaning when applied to coke or gas. I would say it would be better to use the word found. Again, ~~where~~ *or observed or noted* you have ~~used~~ frequently used the word "moved" which, while in some places is all right, where violence is shown I think the term should be "thrown" ~~forth~~ *blown* or "blown" as the case may be. *or burst*

Now as regards to the drawings which you submit. These are very neatly made and, in general, very good. I particularly like figure 6; but figures 7, 8 and 9 have some features which I do not care for: First, always put the name of the room or entry indicated as the case may be; second, in making a drawing like the upper left hand one in figure 7, do not show any lines which are not existent like x y rather continue the outline of the face. Further, I think it is best to mark on each detail just what the view is, that is, figure (a) is evidently a plan of shots; figure (b) is evidently a vertical view of the face. In this view, by the way, the hole (z) shown in figure (a) is not indicated. I think the hole (z) was in the lower part; if so, there should be a line connecting across same in figure (a) - a dotted line or otherwise. Figure (c) does not appear to me to be one that shows anything and it is certainly not a correct method of representation. It might have been shown by the isometric drawing but, as there is nothing shown in (c) which is not shown in (a) and (b), it tends to be ~~more~~ confusing rather than otherwise. The same remarks apply to figures 8 and 9 but in each case drawings (c) would

Mr. Sutton.

sketched it.
-3-

7-25-14.

perhaps be all right if the assumed position of the face were shown, not perhaps as I have ~~got it~~ but in some other way. I have not time to work it out but I will put the problem up to you.

In figure 1, which shows a typical section, it might be well to state the range of thickness of the main coal, the slate or middleman and the bottom coal as they were quite variable according to my remembrance.

Very truly yours,

cc sent to Knoxville.

Mr. Stone

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Birmingham, Ala. Aug. 6, 1914.

My dear Mr. Rice:

Herewith I hand you map of the Acton Mine, with detailed evidence thereon. The entire workings of the mine are not shown here for, as it is, it was quite a job to make a map to the scale of fifty (50) feet to the inch from one one hundred (100) feet to the inch. In the lower right hand corner, you will find the continuation of the slope from the 3rd Right entry in that evidence of the explosion may be shown.

I received your letter some days ago with regard to this report and have made note of everything. If you will have this map photographed on 8"x10" plate and have these prints mounted on canvass 8"x10 1/2" for binding in the report, I will have the text of the report typewritten by the time you return it to me. I have about two thirds of the report written.

I have given close attention to detail in preparing this map and I hope you will find it correct.

Very truly yours.

W. H. Sullivan

I will place on prints the extent of flames with red ink.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Birmingham, Ala. Aug. 15, 1914.



My dear Mr. Rice:

Under date of Aug. 6 I mailed you a map of the Acton No. 2 mine with the request that it be photographed and six prints be returned to me. The report is, and has been for several days, ready for transmittal to you and I will glad if you will find it convenient to forward me the prints of this map at an early date.

Very truly yours:

A handwritten signature in cursive script, which appears to read "E. A. Moulton".

Birmingham, Ala. Aug. 16, 1914.

Mr. A. G. Fieldner,

(Thru Chief Mining Engineer)

Please furnish me by return mail copy of record of analysis your laboratory number 18288. This sample was taken by me at Aston mine No. 2 and mailed you in can No. 21751.

I wish to incorporate this record in the final report of the Aston explosion : s is about ready.

Very truly yours.

E. D. Hillman

> cc Mr. Geo. S. Rice.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Birmingham, Ala. Aug. 22, 1914.



Mr. Geo. S. Rice:

To date I have not yet received prints of the Acton map nor have I received record of Laboratory No. 18280 requested of Mr. Fieldner Aug. 16.

I am waiting for this information and the prints of this map to complete this report.

Very truly yours.

C-392

HIS-RJM

August 25, 1914.

Mr. E. B. Sutton:

I am forwarding you, herewith, as per your request of August 6, six prints of the Acton mine map with detailed evidence of the explosion thereon.

Very truly yours,

G. S. Rice
S.

Pgh. September 1, 1914.

Dr. Clement,

If the Acton samples (18223, 18224, 18225, 18257, 18258 to 64, 18292F) are still on hand would like to have Dr. Lawrence re-run them

under the new method of oxygen injection. Some of these are non-inflammable under the old method but I am inclined to think several of them would be inflammable by the new method.

G. S. Rice.

September 1, 1914.

My dear Mr. Sutton,

I received the four copies of report on the explosion at the Acton No. 2 mine, November 18, 1913. I have been over same hurriedly, but as I had previously been over the first draft carefully, I have not attempted to read this closely. The report is in excellent shape, and I congratulate you upon it. As you state, another time it would be advisable to get report out more promptly.

It is customary for us to submit confidentially through the Director a copy of the report to the mine operator, with a view to prevention of disasters in the future. Is there any reason why that should not be done in this case, and to whom will it be most politic to send it? I presume to Mr. C. F. DeSardleben, Vice President.

There is only one adverse comment which I have to make, i. e. that neither in the text, nor on the title cover are acknowledgments made as to the data collected by co-investigators. This is not a matter of sentiment, but it is important to always define just how a report was gotten up, and who was responsible, inasmuch as in the future when it is read by others those features will have been forgotten. I have therefore changed the title page in a way which I hope is satisfactory to you, as per copy herewith. If not satisfactory please advise.

Yours very truly,

Please return my mine notes.

September 2, 1914.

REPORT ON DISASTER: - ACTON MINE, ALA.

Mr. Manning,

I inclose herewith report on the explosion at the Acton mine No. 2, November 16, 1913.

This is a report prepared by Mr. Sutton, and in the essential features by myself, as I showed him on the ground our methods of investigating explosions, and furnished him with the notes of Mr. R. Y. Williams and myself, outlining the method of presenting the material, and revising proof.

I am asking Mr. Sutton if there is any reason why copy should not be sent to the mine operator.

Yours very truly,

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

EXPERIMENT STATION, PITTSBURGH, PA.

Birmingham, Ala. Sept. 3, 1914.



Mr. Geo. S. Rice:

I hand you herewith field notes gathered by you at the Acton mine incident to the explosion of Nov. 18, 1914.

I had intended inclosing these notes with the report last Saturday but neglected to do so.

By this time, I suppose you have received the finished report. I was rather slow with this report and there were times when other matters, that requiring the most time was the sampling of a cargo of coal for the navy, and the delay incident to getting blue prints and prints of the photograph of the mine map, delayed the completion of this report somewhat.

Very truly yours.

A handwritten signature in cursive script, appearing to read "C. A. J. Smith".

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

EXPERIMENT STATION, PITTSBURGH, PA.

Birmingham, Ala. Sept. 6, 1914.



Subject: Aoton Report.

Mr. Geo. S. Rice:

In reply to your letter of Sept. 1:

I did not receive your letter until yesterday Sept. 6.

I think Mr. C. F. DeBardleben would appreciate a of the report or at least such part as would interest

With regard to the manner in which the map of the was prepared, I might say that I had in mind making it a mention, but when I came to trace it, I found that the ng cloth I requested of Pittsburgh was sent to me too in one dimension. I requested cloth 60"x60". A role urnished the width of which would not cover the draft of I had prepared.

Under date of Sept. 4, 1914, I mailed you your mine and it had been my intention to send them with the re- but overlooked it.

With regard to the change of the title page, I am ashamed that I attempted to claim all the credit of this tigation, altho it was entirely unintentional. I certain- --ve no objection to the change. In fact I feel that this report, of which I am quite proud, is in a very large measure the result of your criticism and that I have learned sommuch that in the future I will be better able to conduct such an investigation. I feel gratified that you are disposed to have you name appear on the report.

Very truly yours.

A handwritten signature in dark ink, appearing to read "E. A. Aoton".

A handwritten signature in dark ink, appearing to read "Mr. Rice".

442
Aston

September 24, 1914.

Alabama Fuel & Iron Company,
Birmingham, Alabama.

Attention Mr. C. F. DeBardleben.

Dear Sir:-

I am sending you herewith Mr. Sutton's report on the explosion at your Aston No. 2 mine, November 18, 1913; which you may find of value in studying methods of prevention of similar explosions.

I am glad to be informed that many of the improvements have already been made at Aston mine.

You will appreciate that the report is being sent to you confidentially and must not be used in any legal proceedings.

Yours very truly,

Acting Director.

C. C. Sutton,
Paul,

20K



Notes

Inspector Field Notes

Clifton Alabama
Explosion - disaster Nov 18, 1913
Field Notes of Geo S. Rice

Field notes of Geo S. Rice
on

Mine Explosion
(of Coal dust)

Acton No 2 Mine

3-30 P.M. Nov 18, 1913

causing death of 24 men

3 men escaped by their own
efforts

2 men rescued by volunteers
before arrival trained crews
with apparatus

2 men using apparatus (Dräger
Helmets) overcome but revived -
mine explored by men with
apparatus before ventilation restored

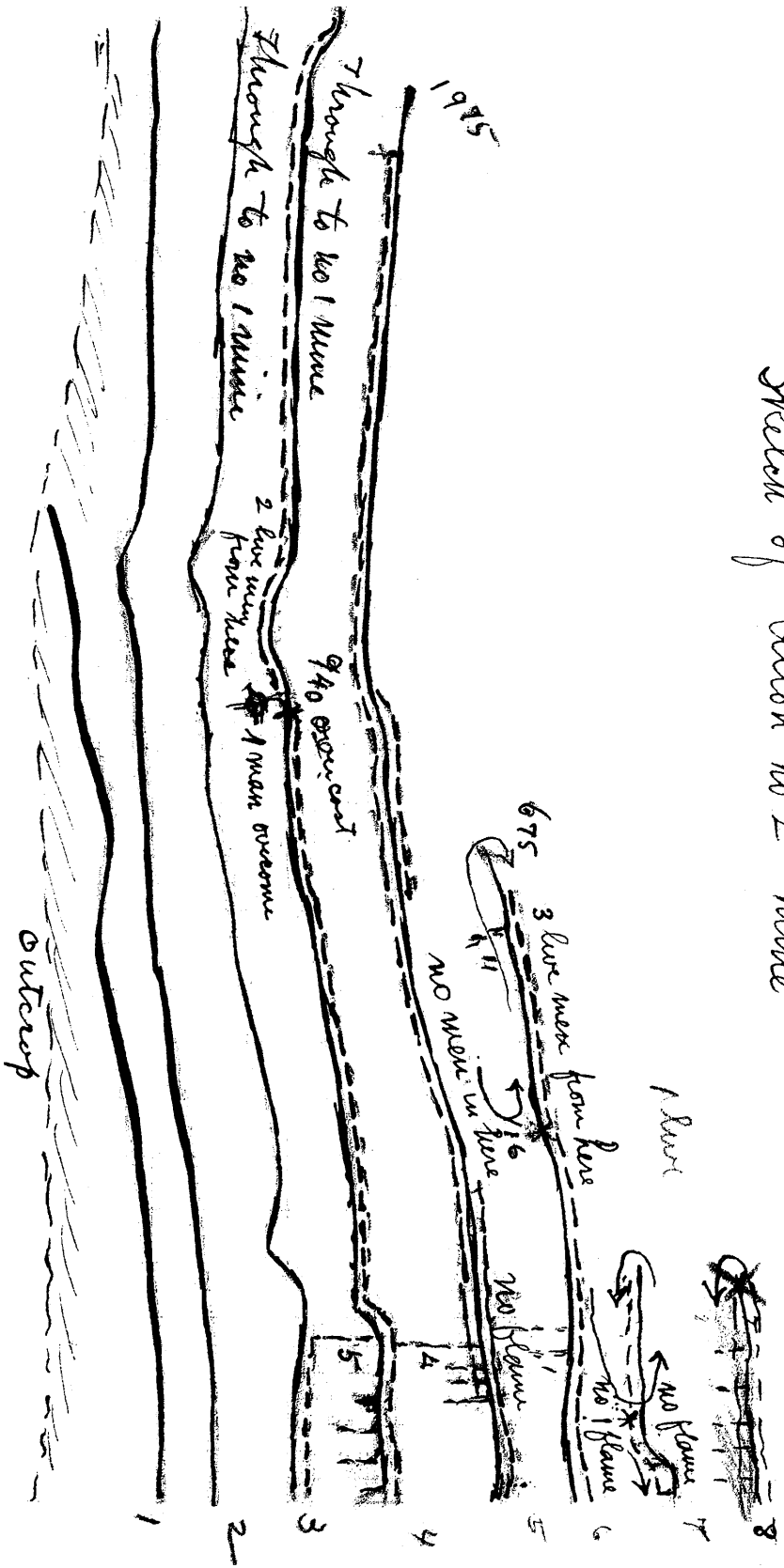
Index		page
Sketch Map		2, 3
General notes about mine		4 to 10
Main Slope	11, 13, 15, 20, 21	
5 Right		12
6 "		14 ^{see} _{Sutton}
7 "		" "
8 "		24 to 27
9 "		20, 23
5 Left		13
6 "		28, 29
7 "		16 to 19
8 "		30 to 38
9 "		20
Rooms off 8 left & air course		37 to 39
Tentative Conclusions		40 to 42

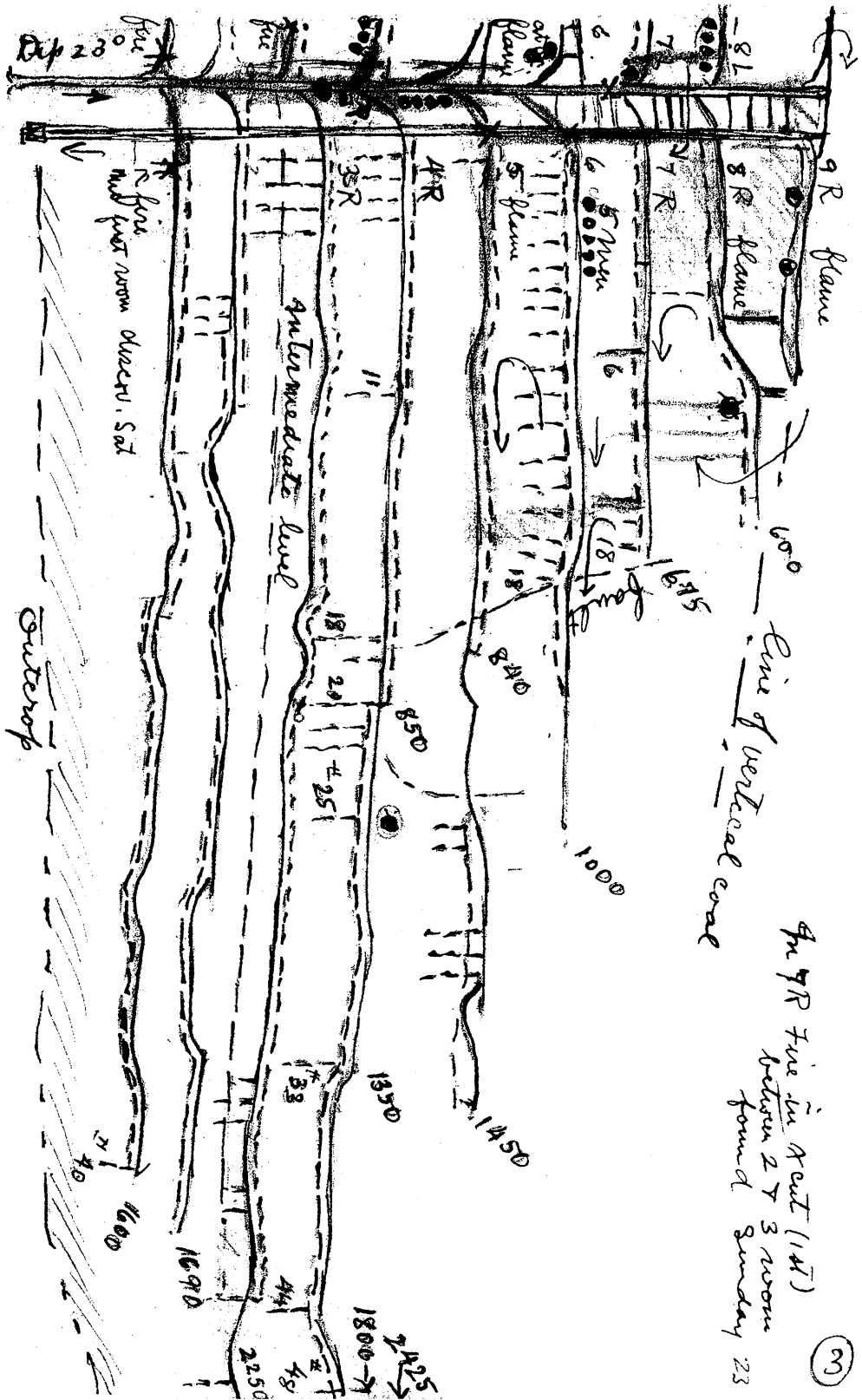
Sketch map of Acton No 2
(over)

(P)

2

Sketch of Acton no 2 Mine





Sketch map (over)

Acton Mines operated by
Alabama Fuel & Iron Co
Gen'l Office Birmingham

This company also operates Margaret
and Daley Mine, latter at Marvel
all slopes -

Chas F. DeBardleben V.P.
and Gen'l Man-
g'r Supt. J. A. Conway
Birmingham

Supt Acton 1 2 & 3
C. G. Toler -

Nov 21, 1913

Learned about explosion from papers (Pittsburgh) morning of Nov. 19, Director by telephone requested that I go, I left that evening by the earliest direct connection, via Cincinnati (Q & C route), arrived at Birmingham at 10-15 P.M. Nov. 20, tried to telephone to E.B. Sutton at Acton, but telephone office closed and no telegraphic office -

Left on 7 AM. train L. & N. for Helena thence driving (1 1/4 hours) to Acton Mine Arrived at Acton about 8-30, met E.B. Sutton of bureau and H. H. Hamilton volunteer (Dupont explosives agent) met J. G. Steel foreman(?) and Supt C. G. Toler

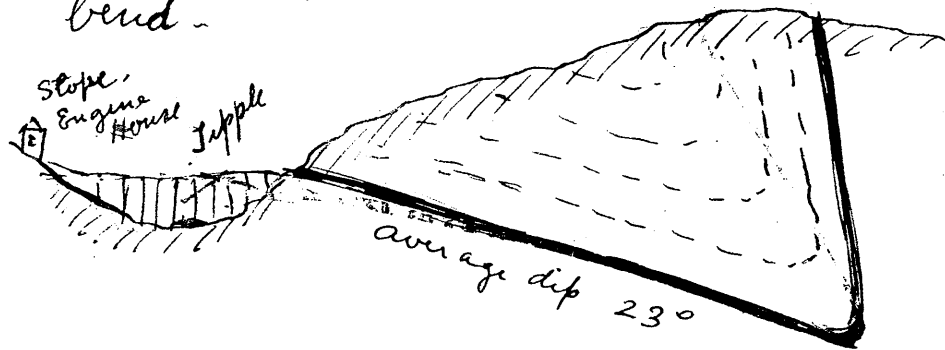
Acton Nos 1 & 2 mines are about a mile apart (the office is near No 1); They are connected underground in the upper levels and part of the ventilating current for No 2 comes from No 1 - However the explosion did not enter No 1 mine -

There is a number 3 mine started but not connected with the other mines -

(5)

⑥

The Mines work a narrow trough, the No 2 mine has gone to the bottom, to where the vein tips up vertically, the vertical coal is not being worked except at the bend.



The slope has nine level entries on each side of the slope. The upper 3 lefts and 3 rights are finished and abandoned. There is some pillar work in the 4th left and 4th right. There was no one in the 5th left and 5th right, though these levels have not been entirely finished. The 6, 7 & 8th lefts are advancing, the 6 7 & 8 rights are in faulty ground, or too thin to work. The coal bed is from 3 to 10 feet thick sometimes with a "middle-man" (rock parting). The normal thickness is about 5 feet of coal. The roof is a strong sandstone rough and irregular. The coal is a high grade

bituminous coal, quite hard and much valued for domestic purpose; bringing according to Mr. Fies, (who was brought by company to investigate) 25 cents above any other coal on the market -

The mine is somewhat gaseous in places - Not a large amount of gas is given off, but ^{due to} slow ventilation ~~and~~ the raise workings are apt to catch pockets of gas -

The explosion occurred at 3:30 P.M. Nov 18, 1913, when 29 men were in the mine. The mine was to work only $\frac{3}{4}$ (?) of a day and many of the miners had come out previously. 3 men came out after the explosion from the 6th left, they did not know about the explosion until they passed two bodies in the mainway.

2 men were rescued

24 men, 16 whites & 8 negroes killed -

29

1 man found (Williams) on 4th left carried out about 8:30 P.M. afterwards found man in mainway below the 6th, had come out of 7 left. (7)

For complete record of rescue work
see E.B. Suttons preliminary report
which was revised by me!

When ready to enter the mine on Nov 18
I was notified that Mr Chas Debartleben
Pres. ~~wished~~ to see me, I had to
wait for him for sometime, he
then said he did not wish inves-
tigating parties to go ahead, that
we should wait till next week
for the investigation with the
inspectors and others. He had
arranged this with Mr Nesbit, the
chief Inspector - I then requested
permission to go in as far as the
brattice party, which he granted,
so I entered the mine about 12-30
and found Sutton and the others
in the slope about the 5th right
working on an overcast -

Notes on Explosion -

The foreman Chas Landgraf and another person were standing on the incline just above the mouth of the slope and to the right. He was looking toward the slope when he saw a puff of smoke (dust?), but with no force - then the smoke retreated, being sucked in by the intaking air, as the slope is normally an intake and the fan, a little to the right of the entrance of the slope, but at the head of the airway, was not damaged nor stopped -

Extent of Explosion

The flame of the explosion came out at least as far as the pump room outbye the 4 Right, and probably further though without much force outbye the 4 Right. Burning brands were evidently carried up as far as the first rights and lifts as fires were started in these entries, that on the 1st left near the slope, and that on the 1st Right near the second room. They were extinguished without trouble. (9)

Test of bodies found

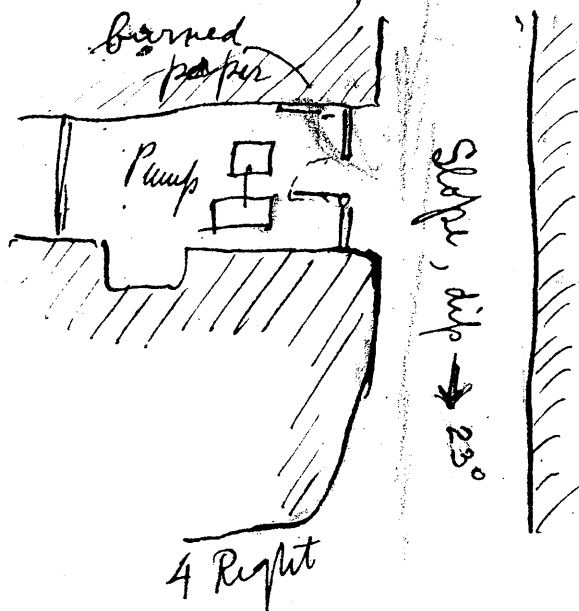
1	man	in by 3 R on slope
4	men	on slope (working then) at 5 left
3	"	at mouth of 4 left
1	"	" " " 7 - "
2	"	in manway at 6 left
4	"	on the 8th left near mouth
2	"	on - 9 right
1	"	" 8 right
1	"	" 4th " in by
5	"	by 6th right not burned
		- in by side track
<hr/>		
24		

More air samples

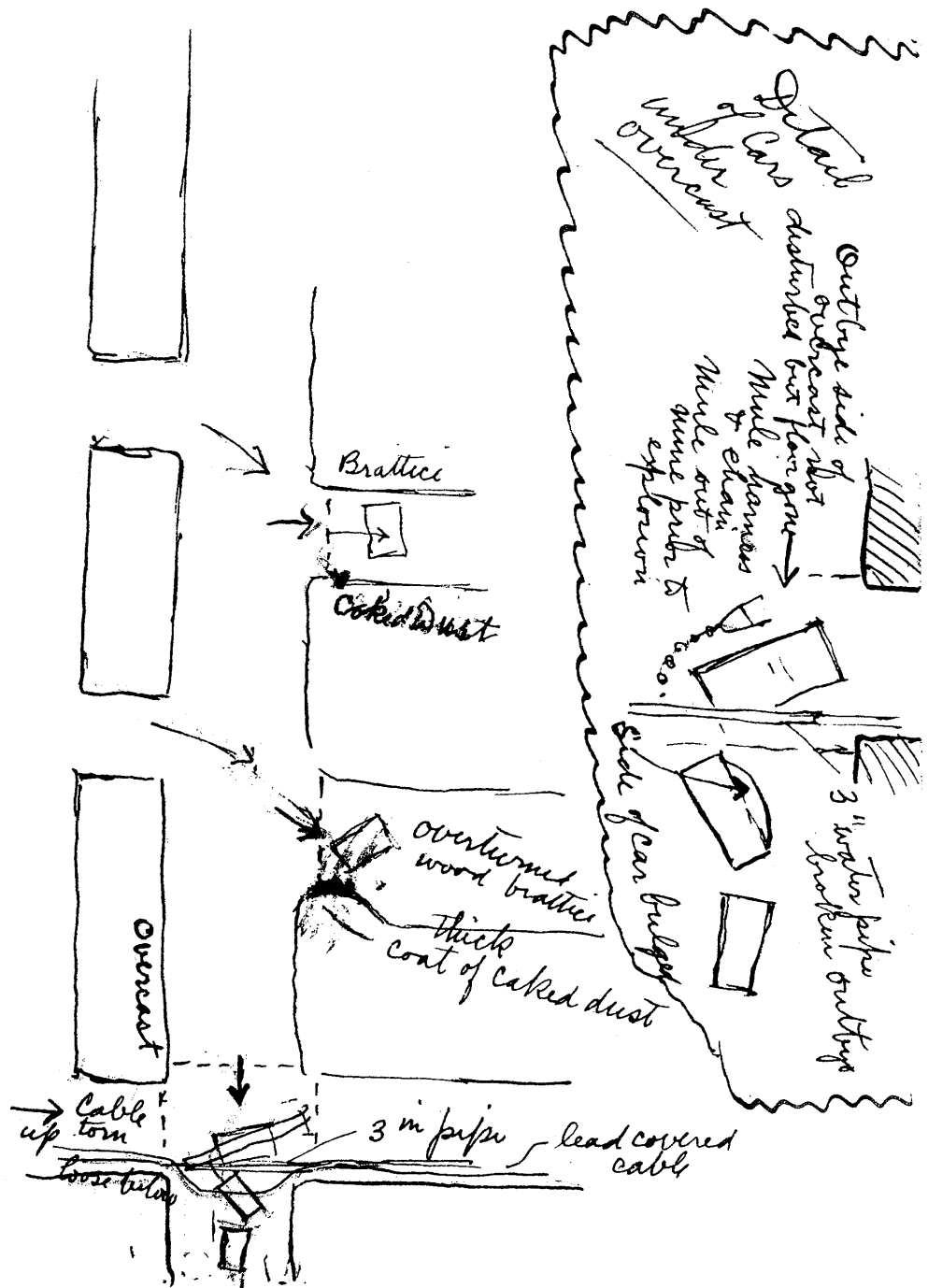
2 at fan Nov 19 am. of main return

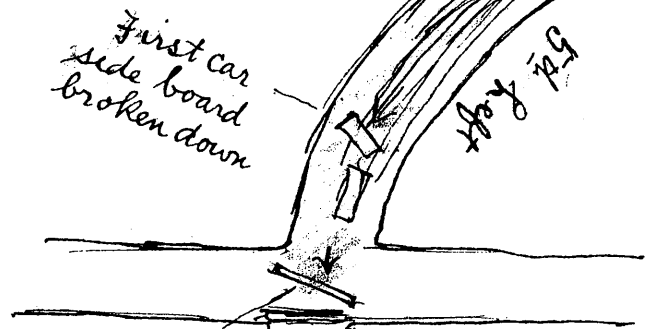
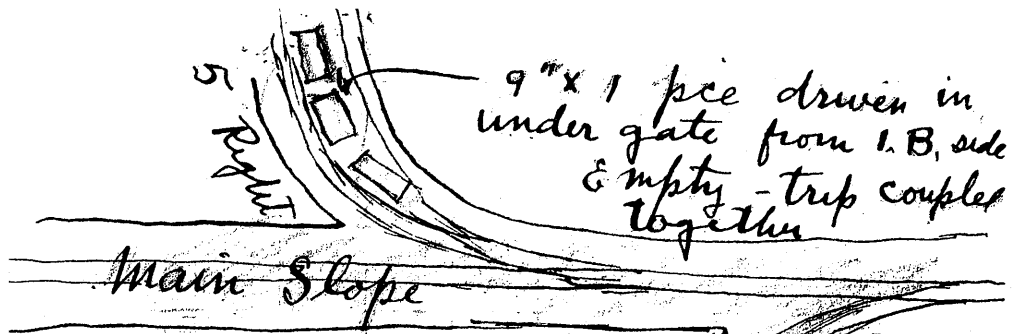
Main Slope

Pumpman found ~~unby~~? 3rd entries
he was burned and bones broken
apparently carried uphill from opposite
pump room which is on a cross cut
outbye the 4th Right. Flame had
entered the pump room through the
doorway without violence, and had
burned papers hanging on the wall
on the outbye rib.



Next cross-cut outbye the pump
station the stopping appeared to
have been blowdown toward
the slope



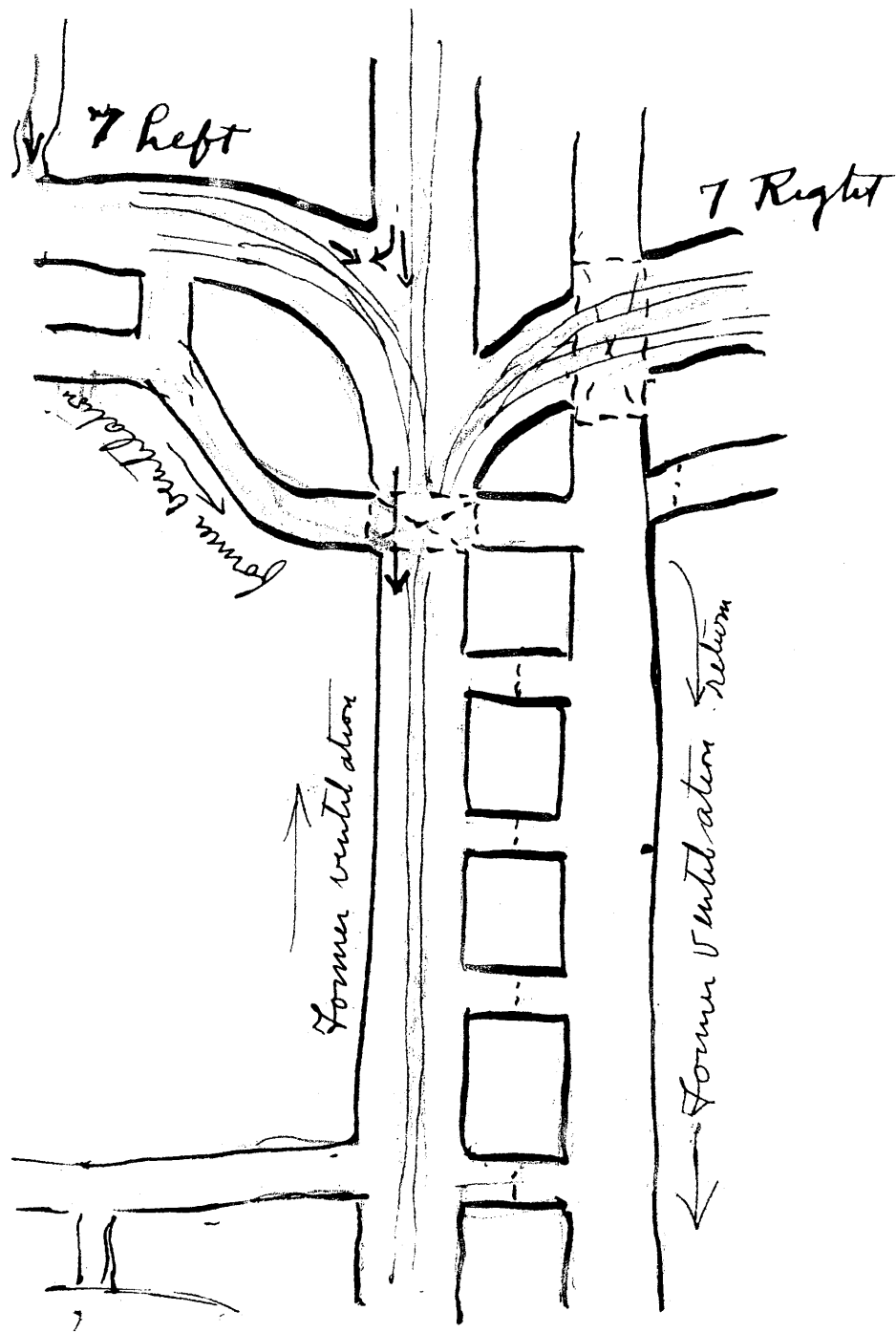


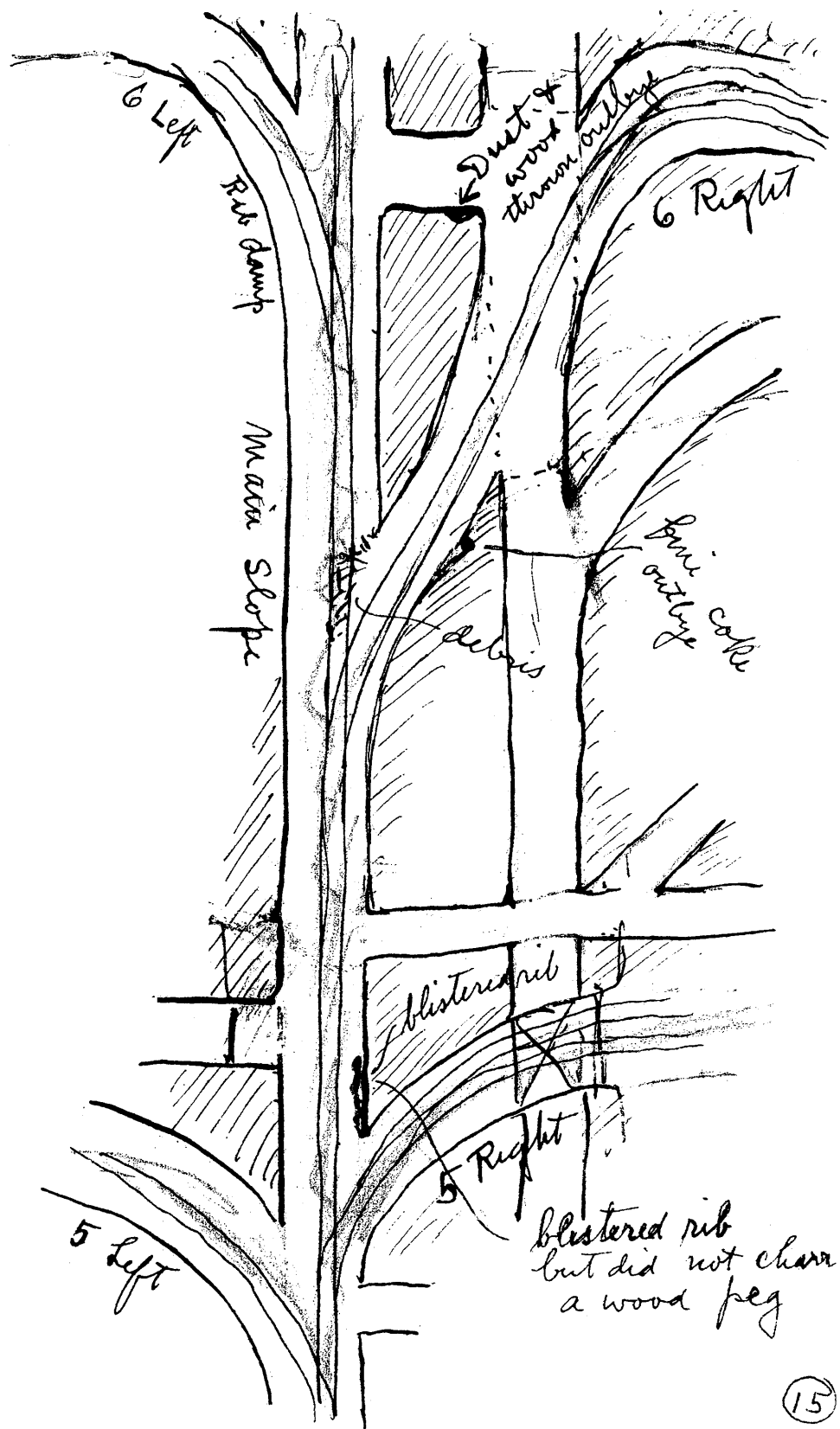
floor timber of overcast and worn side in place bottom of timber secured

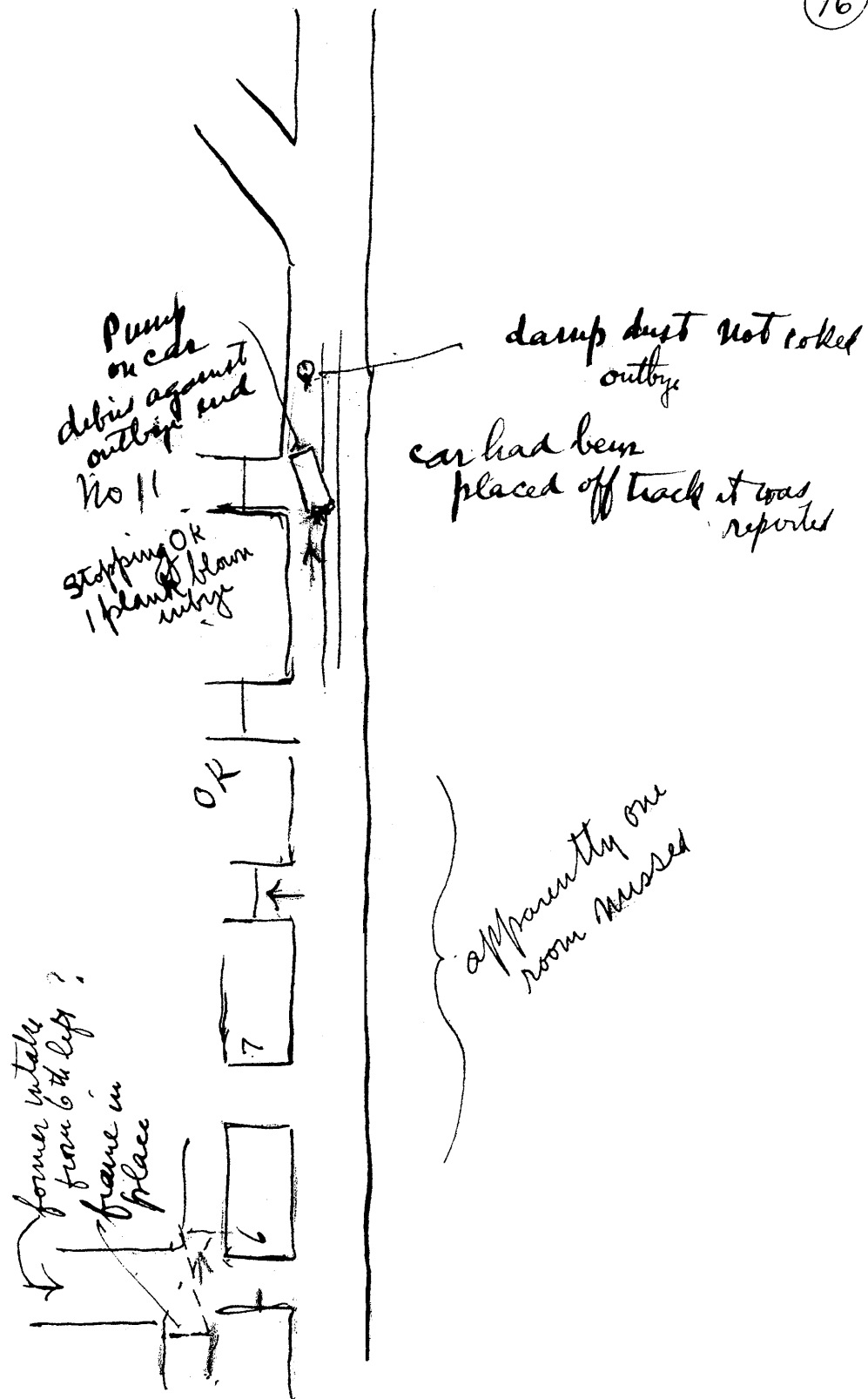
old overcast

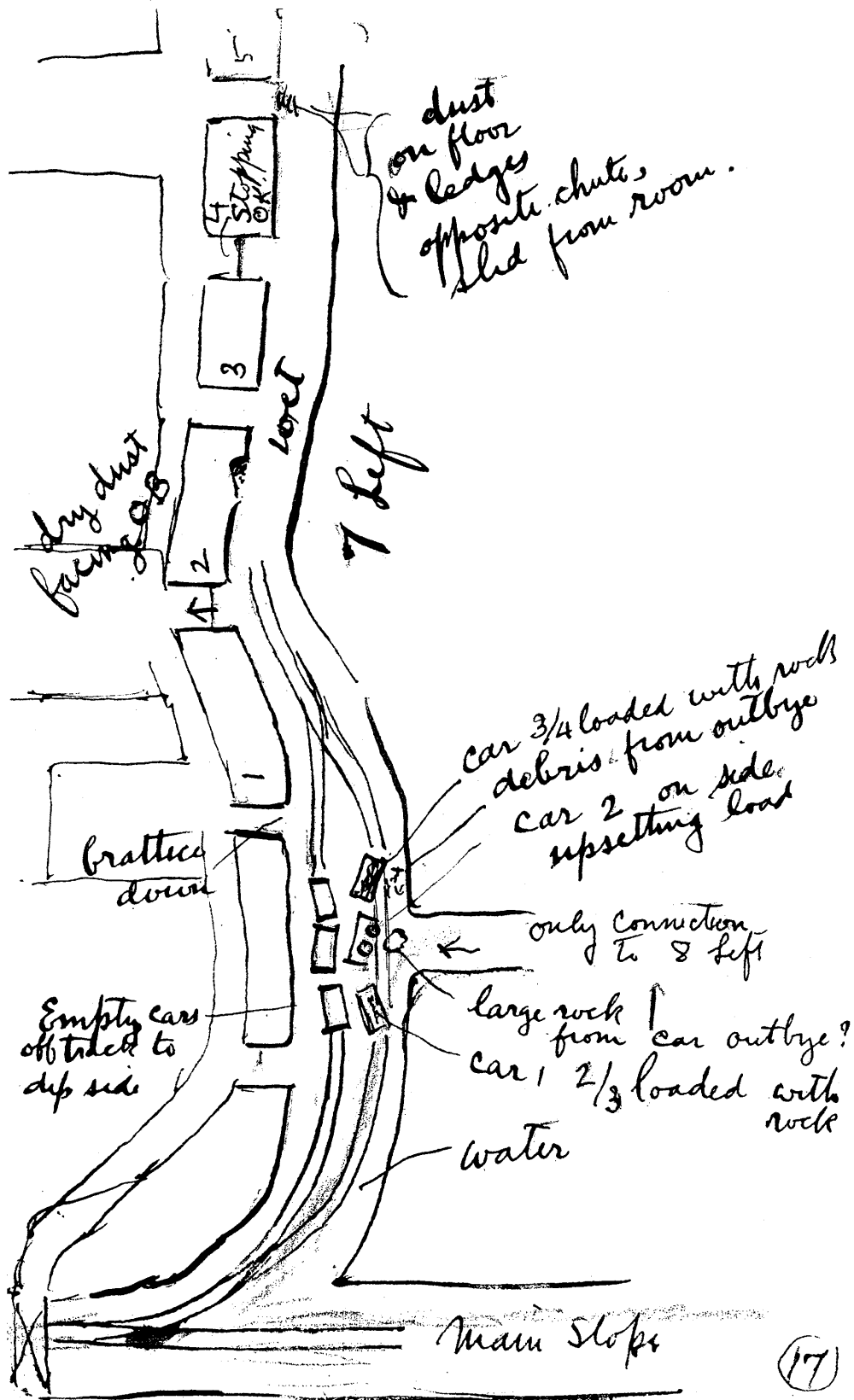
debris against end of car

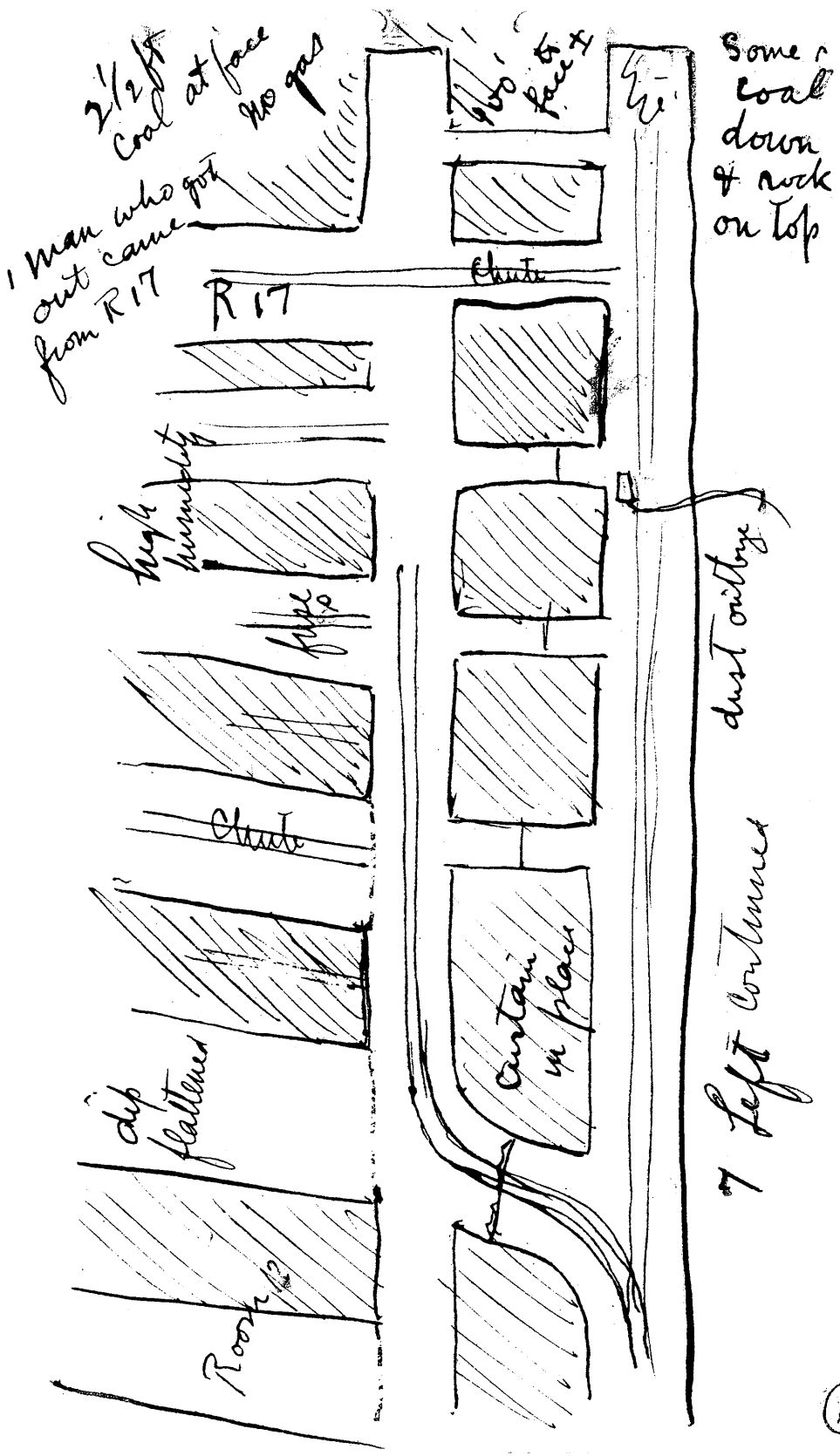
Entry runs to No 1
timber, from
which there
is some water
from left side
of vehicle

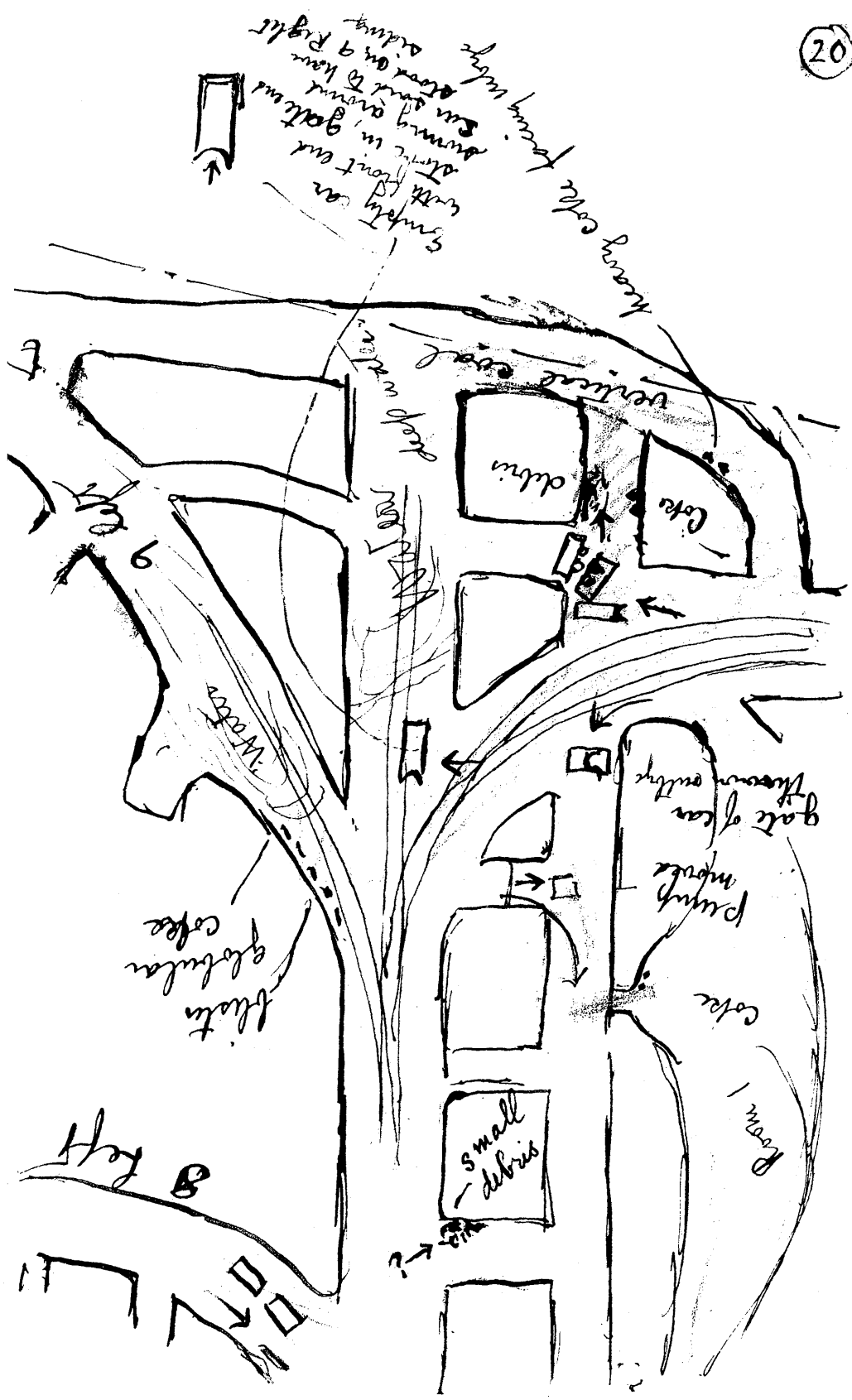


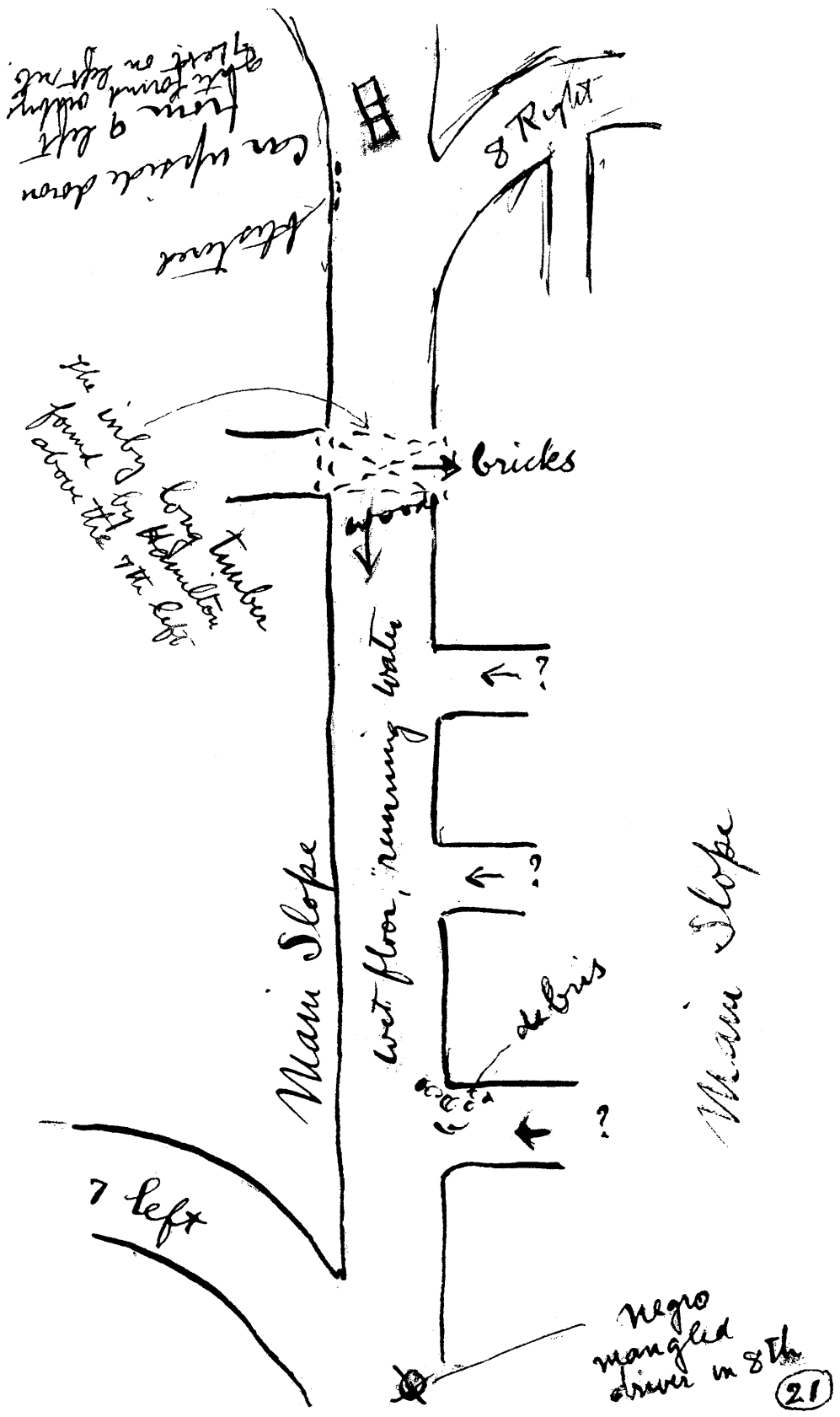






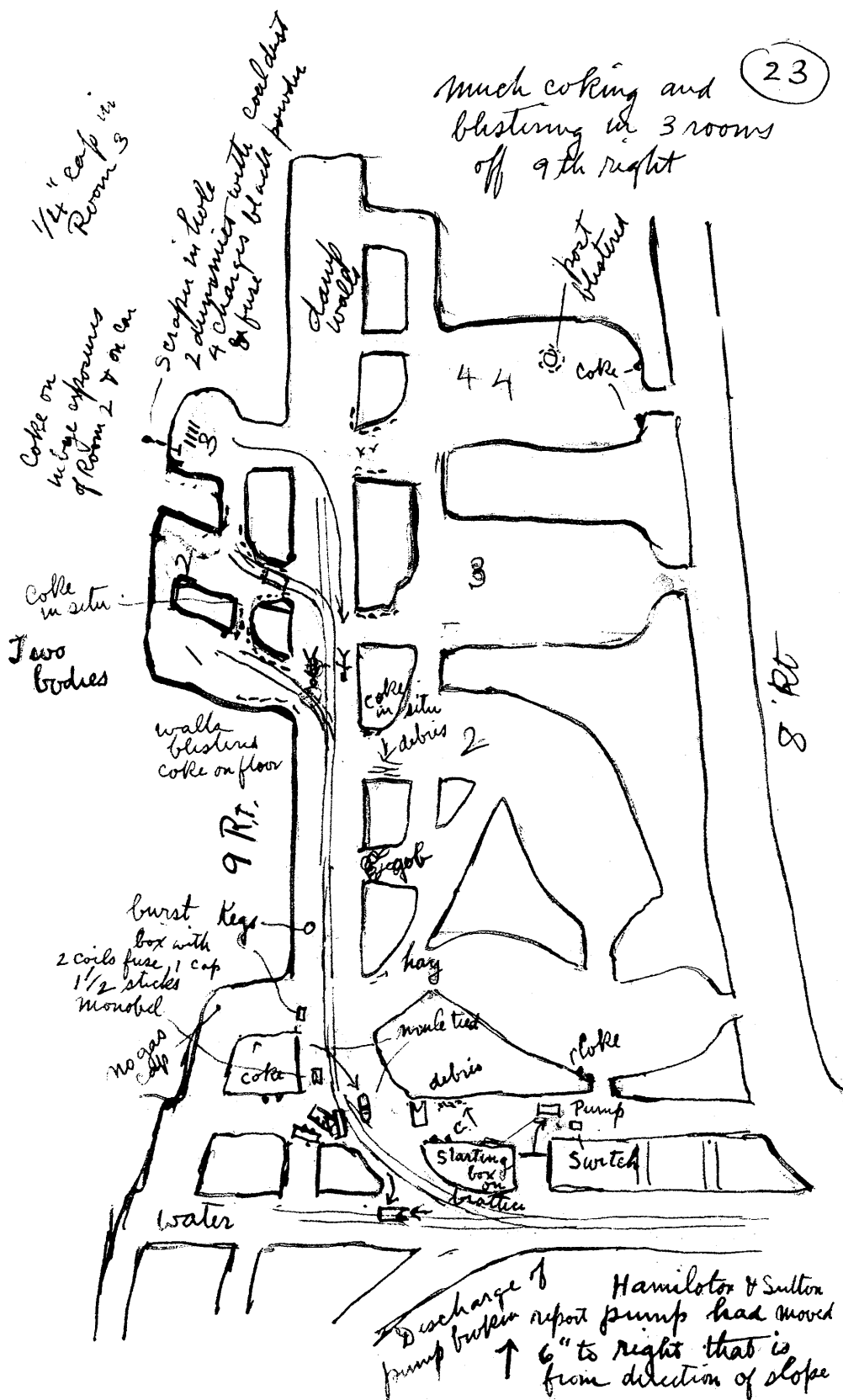






22

much coking and (2)
blistering in 3 rooms
off 9th right



(24)

Hamilton states
an exploded keg here

water on floor

8th Right

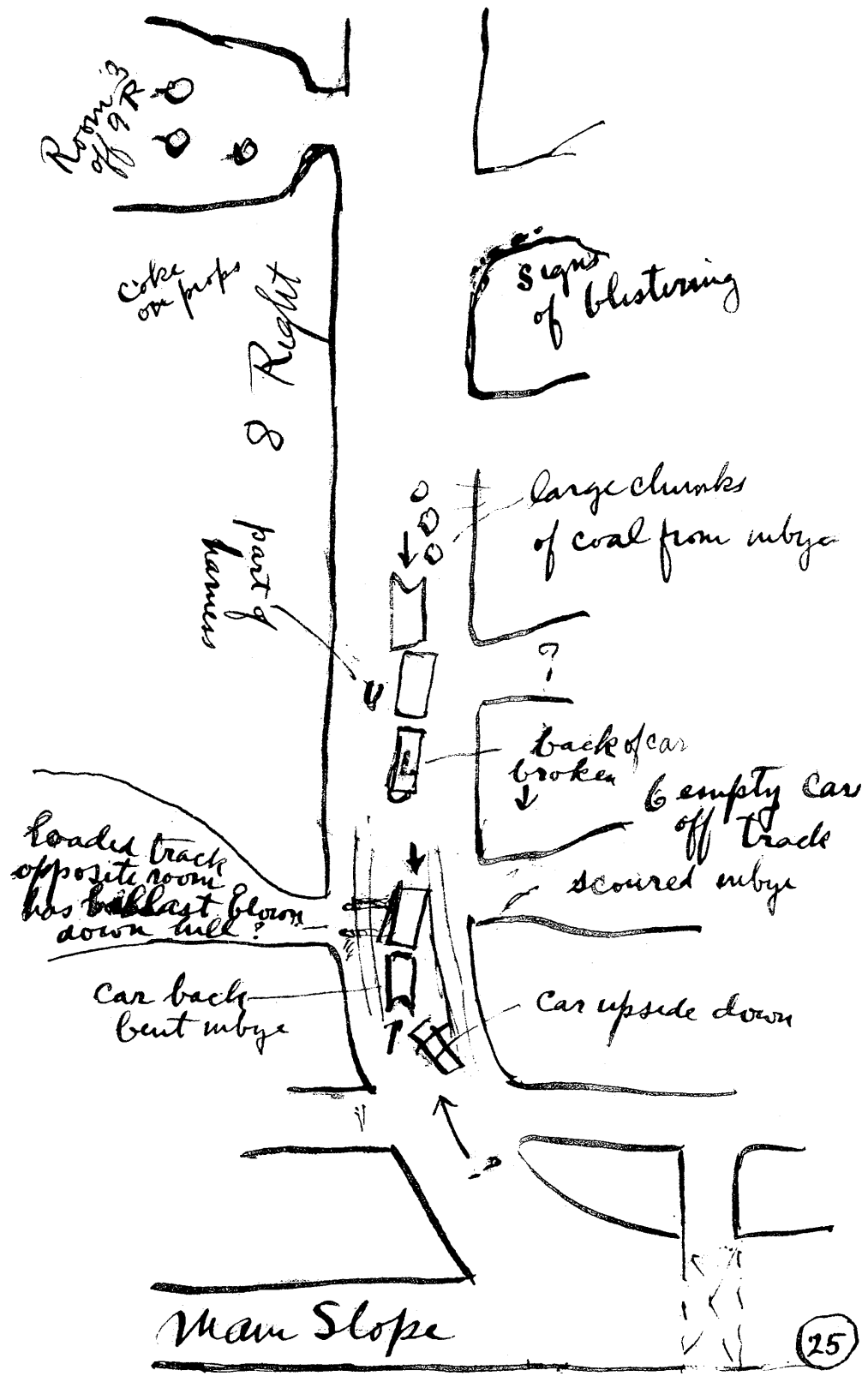
brattice panthy up

rock dust
are crevice

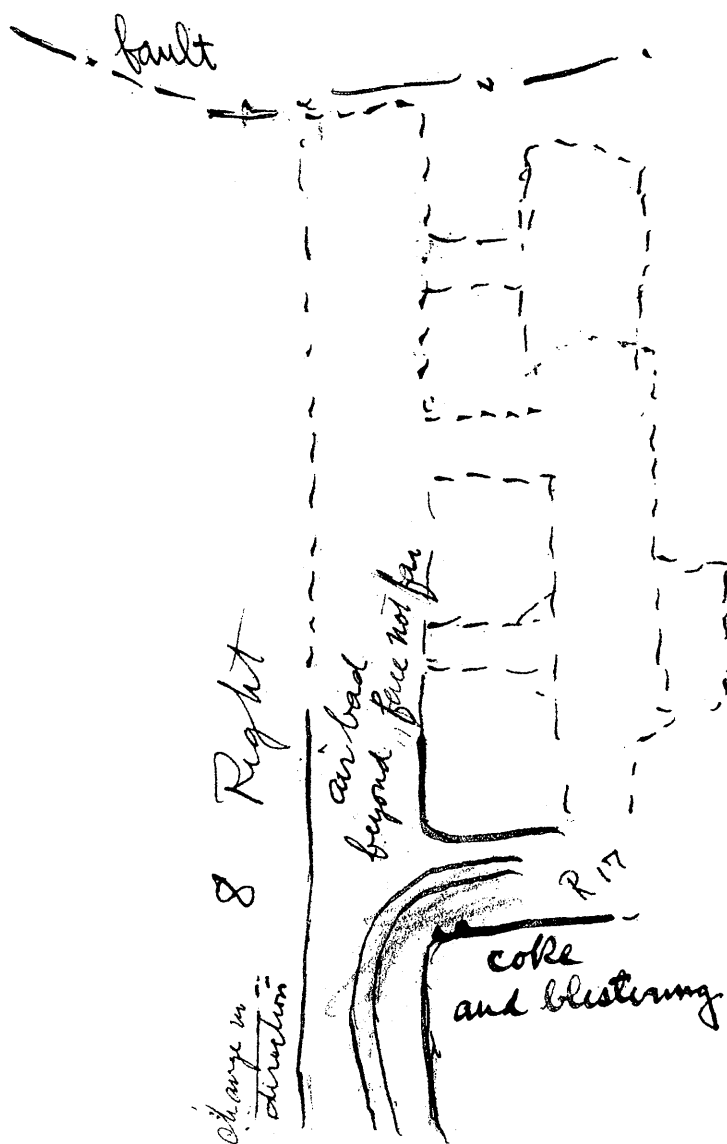
Room 4
off 9R

blisters

scrubbed or
burned



26



Box broken open
a rusty burst
box thrown against wall
has debris on top
no cap

(no angle or

damp wall
→ R18

cooled dust
on post

upset bucket
of clay

→ R18

body of man
facing in by

line of
standing water

coke in
site

8 Right Condition used from p. 24

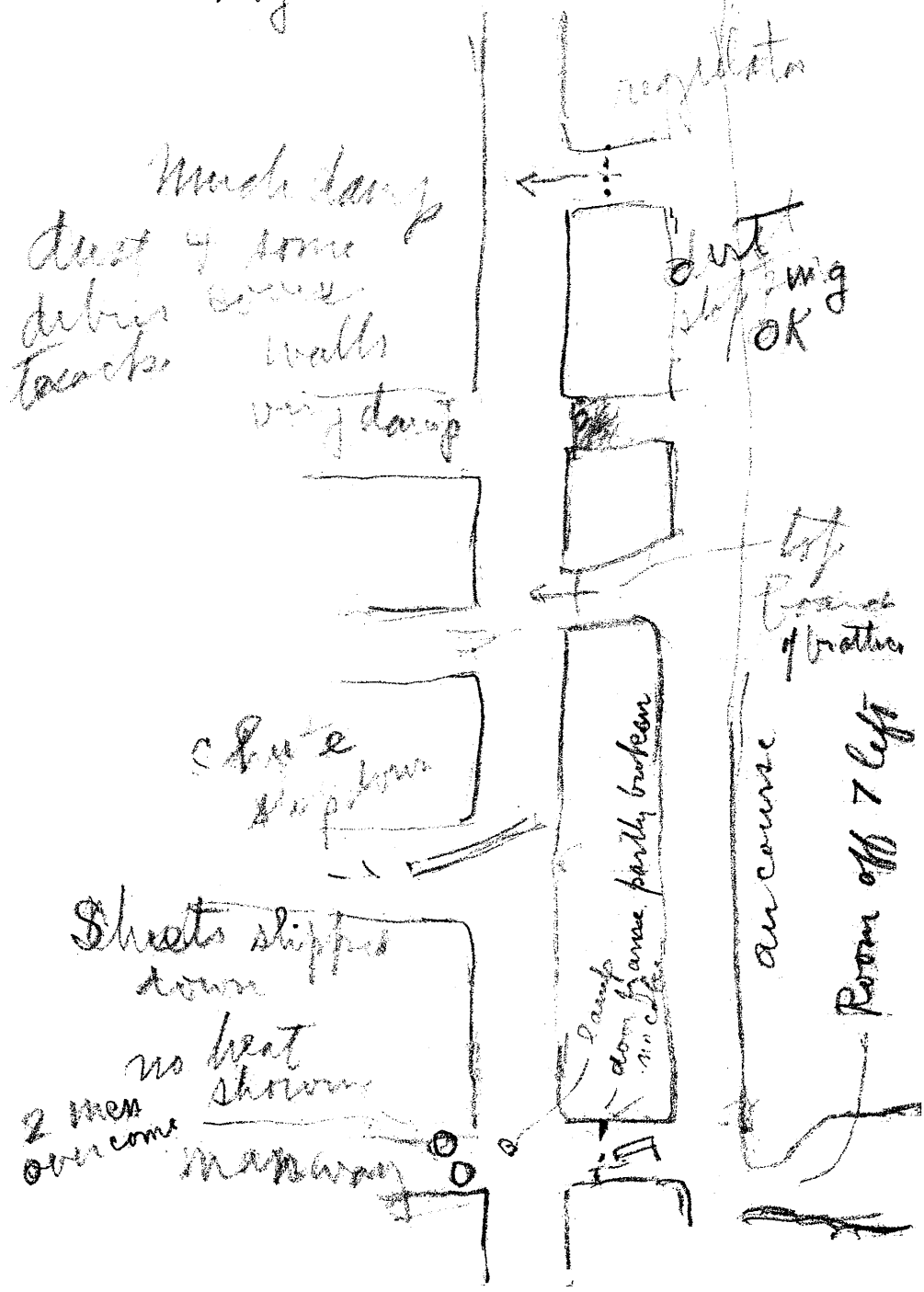
water

?? →

debris fine coke globules
about post

blistered

Did not follow up this entry
as nothing disturbed
mby here



6 Left

R2
drier
bus some
wind

R1

wet mud
IBOOD

floor damp

OB edges
rounded

walls
damp

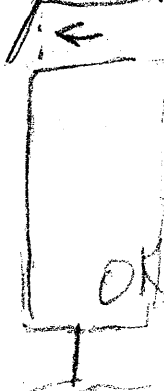
wet

Wet mud in the
center

6 Left

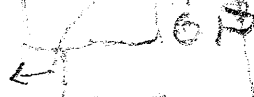
road

top boards



air course

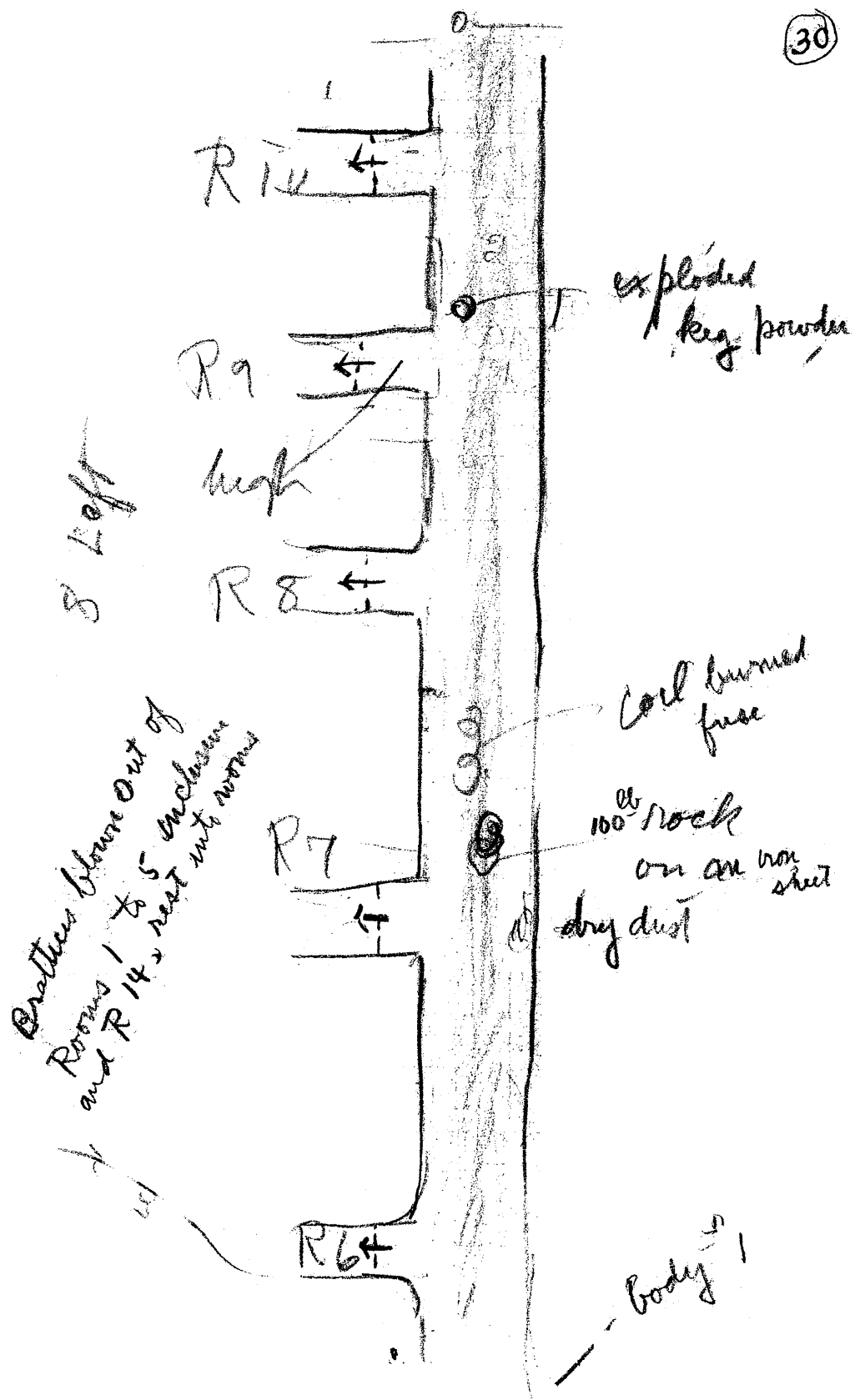
top board

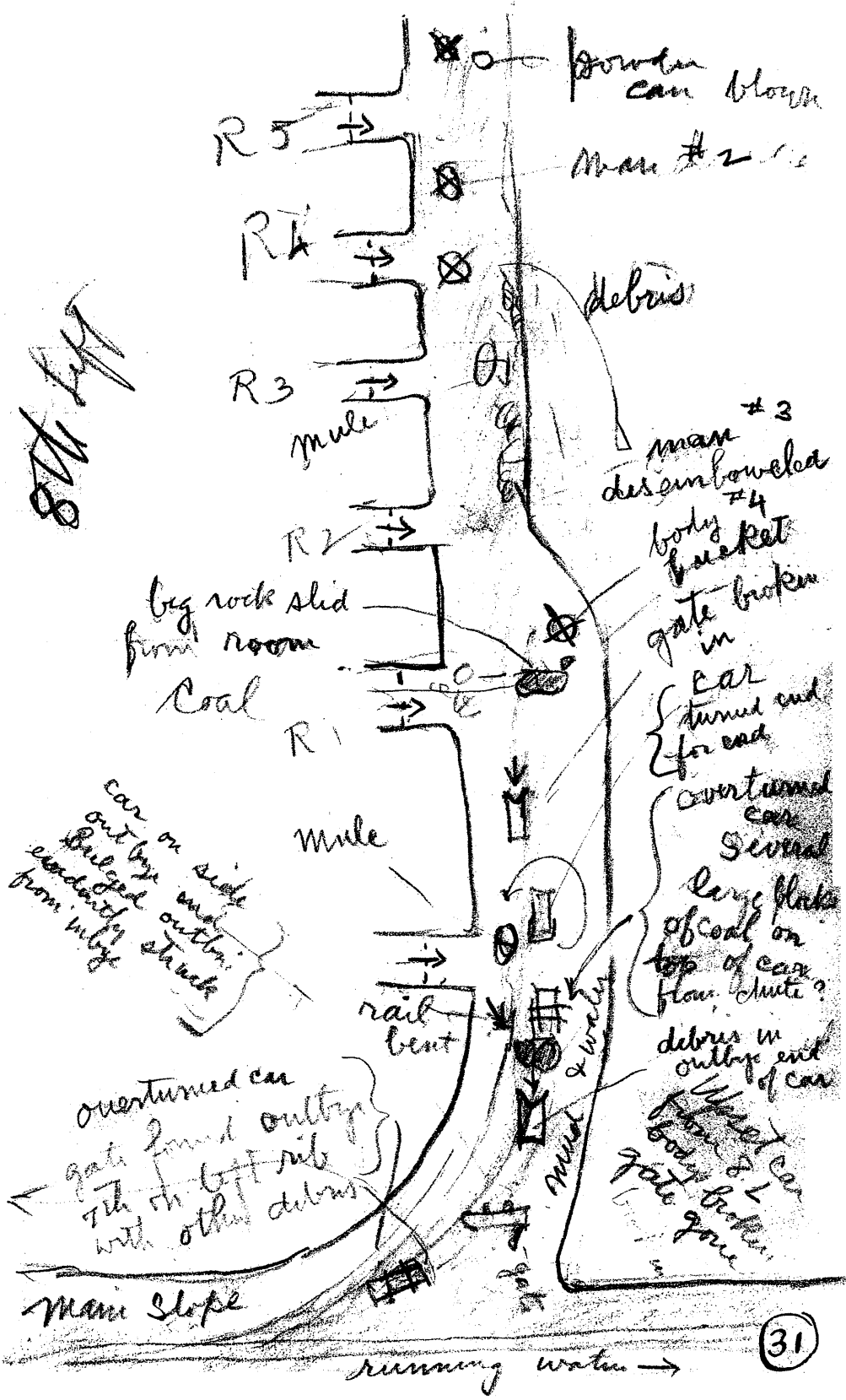


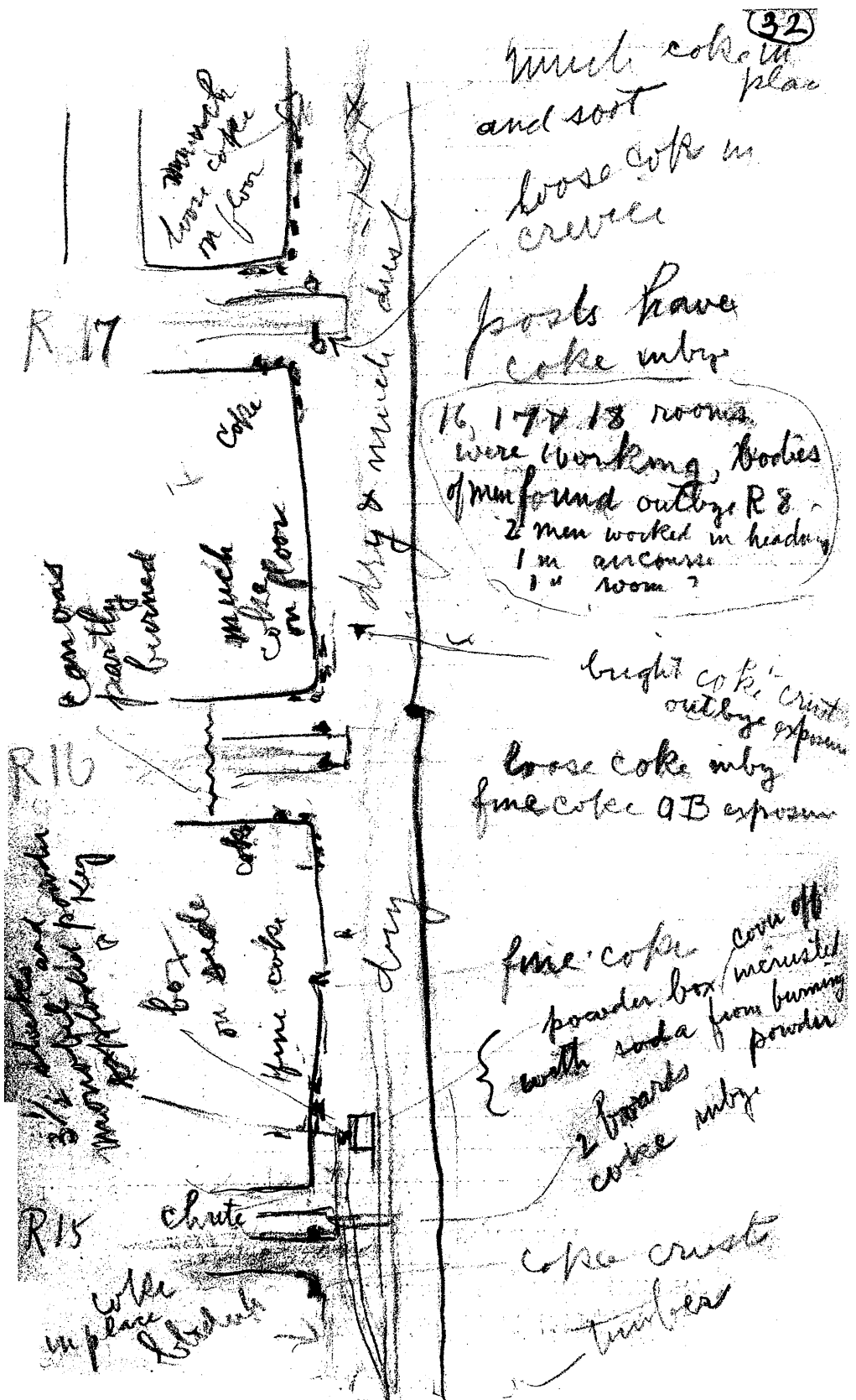
Leid

5 boards
on back
from ends
much from
dust banked
up

main slope







much coke in place
and sort
loose coke in crevice

posts have coke in by

16, 17 & 18 rooms were working, bodies of men found out by R 8. 2 men worked in heading 1 m. air course 1" room?

bright coke crust out by exposure
loose coke in by
fine coke AB exposure

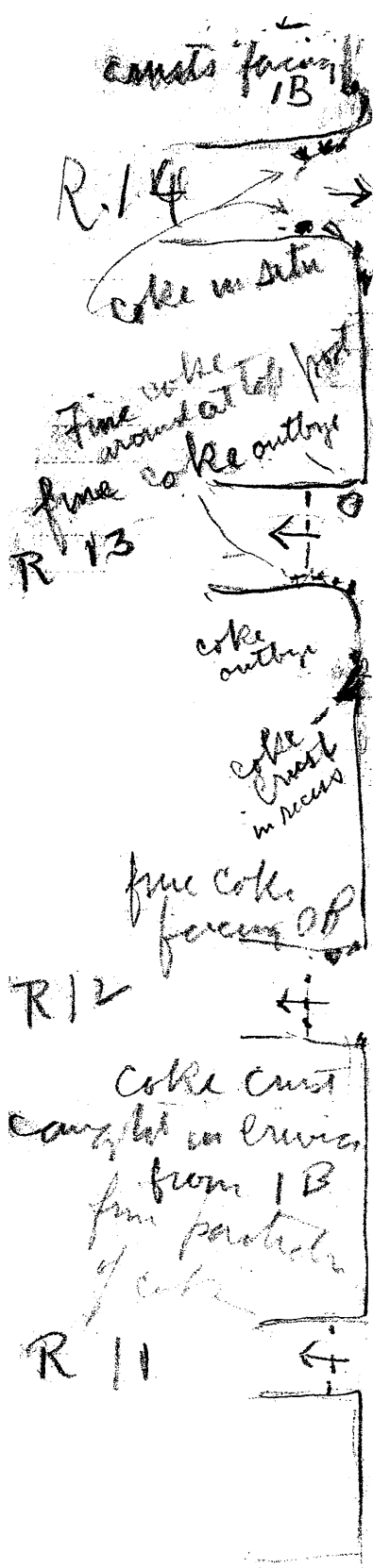
fine coke cover off
boards box incrust
with soda from burning powder
2 boards
coke in by

coke crust
timber

3 1/2 chutes and water
3 1/2 m. of old pipe
now replaced

box on side
fine coke

chute
coke in place
blacked



box top & see out
 coke on it
 debris slopping
 from room

Thick coke OB

Coke thrown against
 roof crevice from
 inside

8' Left
 (continued)

coil fuse burned
 about 25' long

(33)

The brattice man also day fire boss
testified two last X cuts
left open (instead of one)
in this entry
After shooting (allowed
to shoot twice a day)
almost always had to
brush the air course & sometimes
the heading after noon
shooting - When brushed
out (with brattice cloth) had
to go back and brush
out Rooms 16 & 17 where it
lodges as the ventilation is
slow in these entries -

Heads of 8 left
and ancourse
see details not page

Soat filaments
within 50 feet or so
of face

5 foot hole

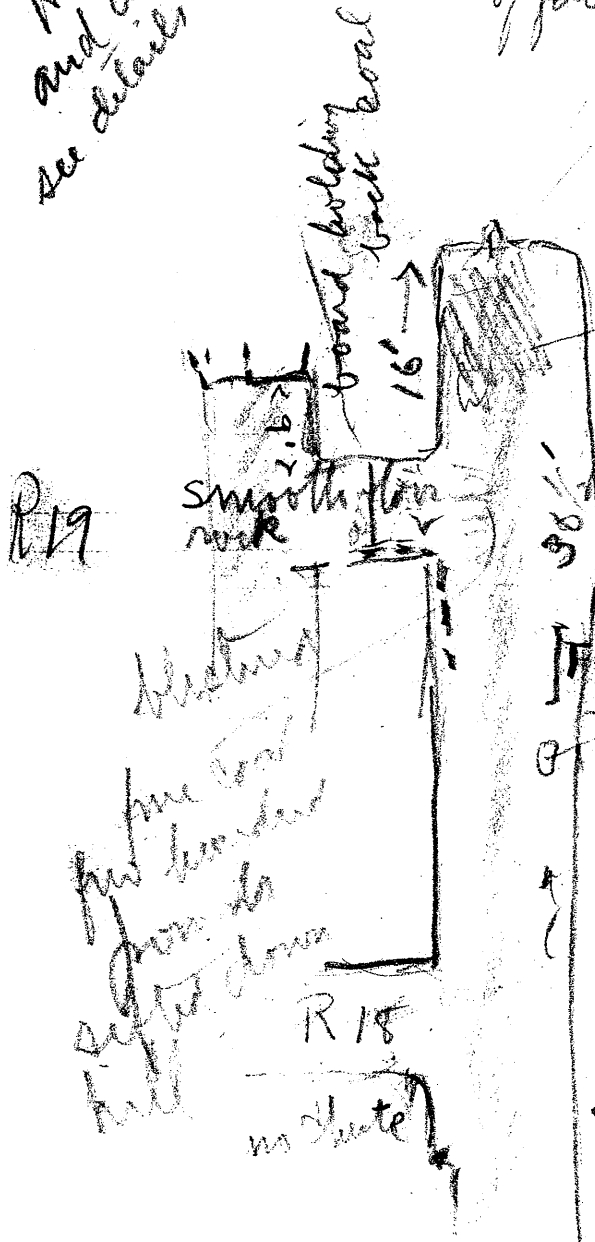
pile of
fine coal
to 2 ft
abt 1 1/2 tons

2 picks
2 augers
1 scraper
exploded can

coke in situ
on roof

8 left

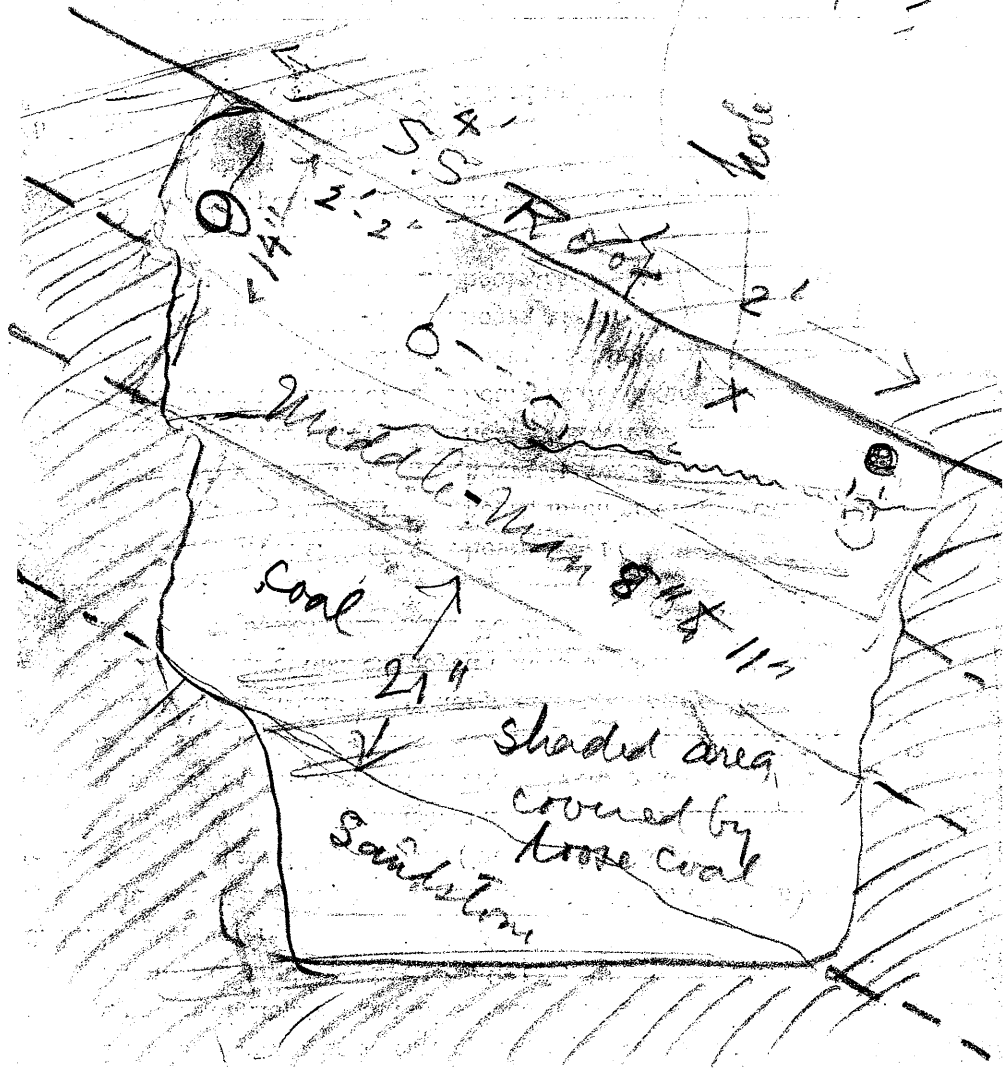
35



(36)

Vertical section
of 8 left face

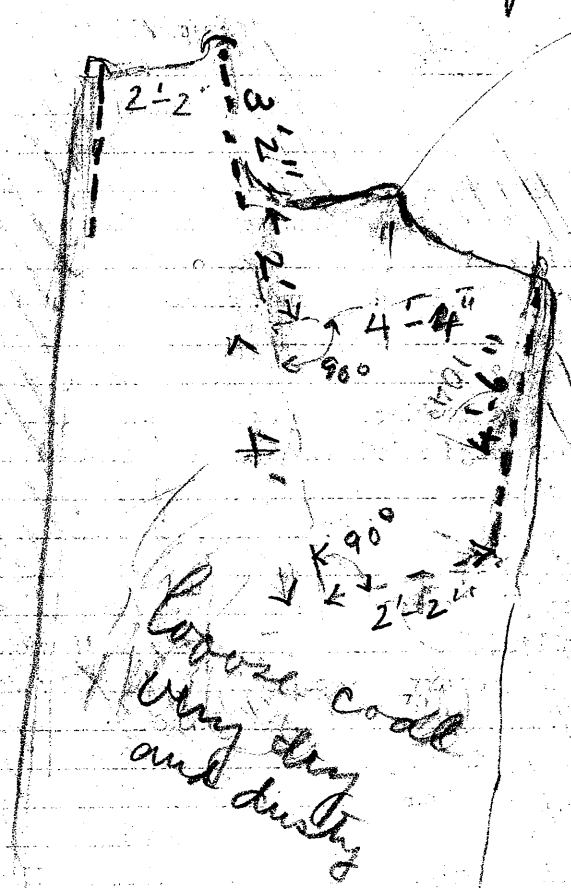
Is this a
shot?



8 Left
air course

Plan on top of
Middleman
showing shots
See also page 38

One looks like black powder shot
the diameter of a musket ball



Loose coal
Very dry
and dusty

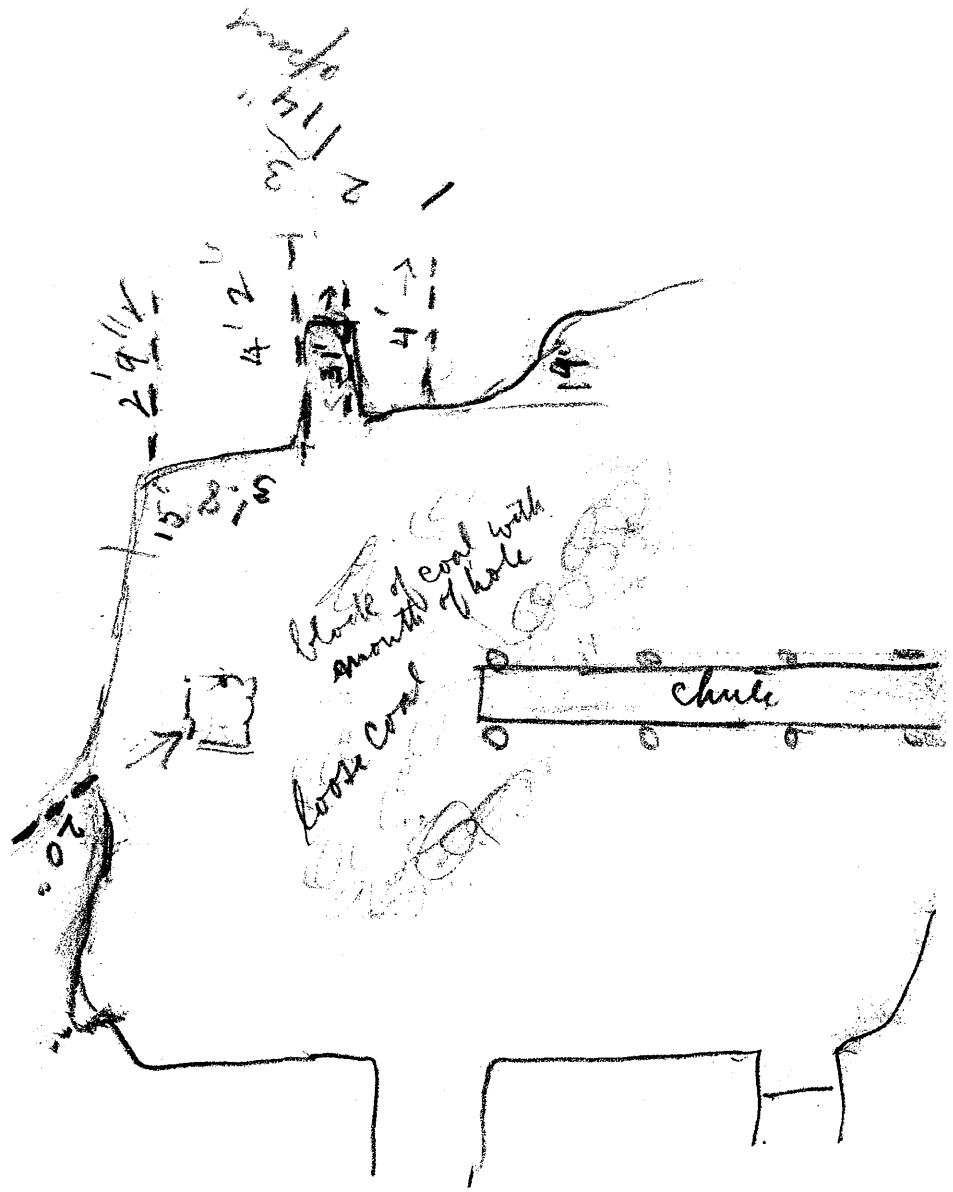
a hole started previously?

Hamilton then
wrote the letter
about 14 days
ago

(37)

and then
about 14 days
ago
coal
about 14 days
ago
about 14 days
ago
about 14 days
ago

Detail of Shots in R 17

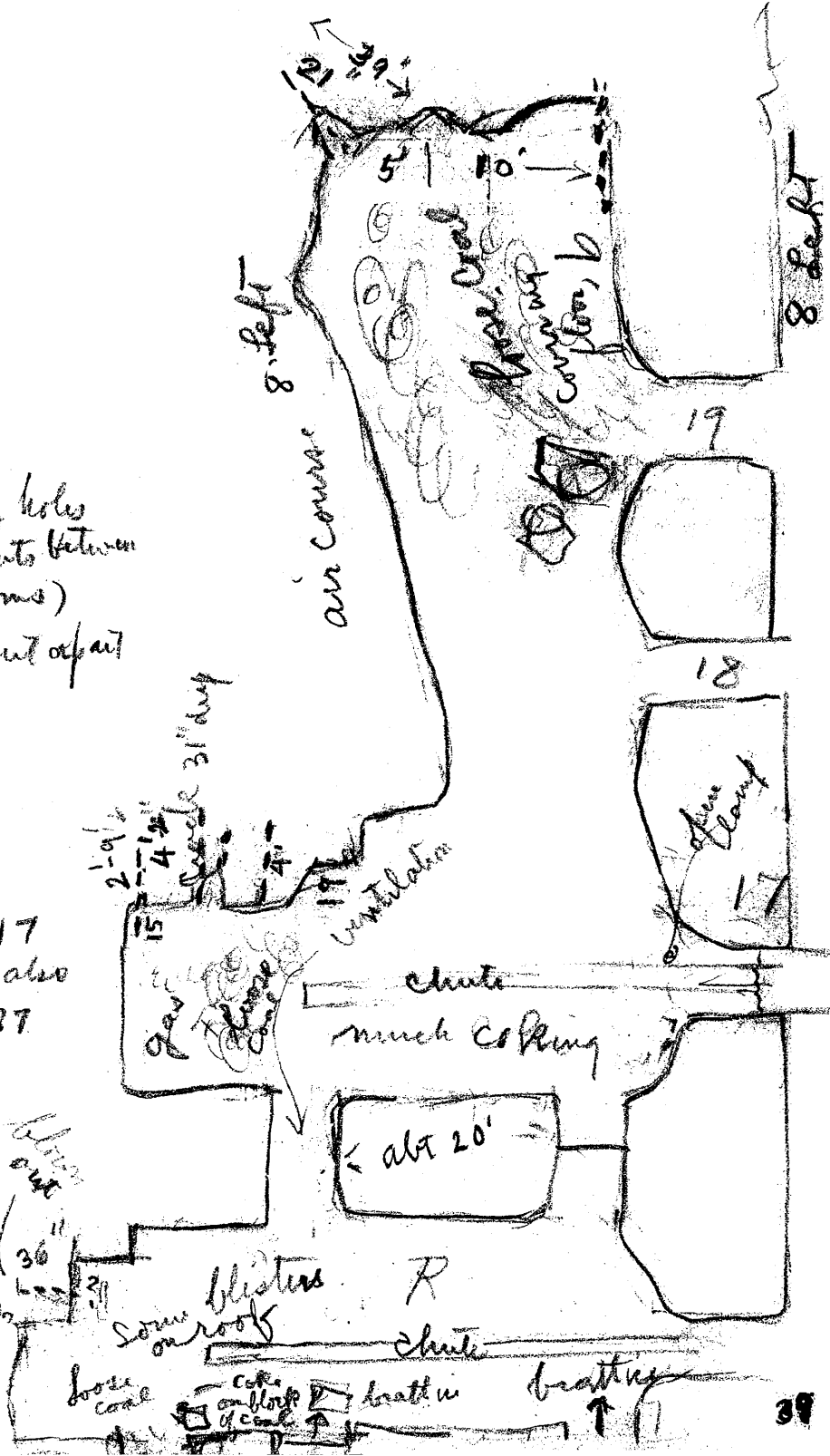


Dog holes
(x cuts between
rooms)
20 feet apart

R 17
See also
p 37

Run 35' long

blow out
(36" hole)



Tentative Conclusions about Explosion

- 1) It was a coal dust explosion, aided in a few places by a slight amount of methane and by some kegs of black powder exploding -
- 2) It originated without question in the 8th left entry and inner working places, from overcharged and blown out shots of black powder -
- 3) It is impossible to identify any one shot as responsible, as a number were bad enough for any one to have started it, perhaps all contributed - 3 men who escaped from the 7 left state they heard two shots then the explosion followed 4 men had been working in the 8th left, 2 in the entry, 1 in the air course and 1 in Room 17? They cordently charged a number of holes and lit the fuse. They were overtaken by the resulting explosion, outlge the 16 room chute
- 4) The 8 left was one of the driest rooms in the mine, - the driest coal dust tended to sift down from the chute

if the shots in the room and ~~also~~ course went off first, they would throw a large amount of inflammable dust into the air, then when the shots in the entry went off, the train was laid for an explosion -

5) The explosion at the mouth of the 8 left, reached its maximum violence

Path of explosion -

The explosion on reaching the mouth of the 8 left, split into 3 parts, one going up the main slope, one across into the 8th right and the third down the main slope. There had been a previous branching off up the first room, as indicated by the force entering the 7 left at the point where this room breaks into it on the siding - The latter branch, did not go far inbye on the 8th, but probably went outbye toward the slope, where it probably tended to neutralize the explosion entering from the main slope.

The branch of the explosion from the 8th left which shot across into the 8th Right 41

probably ran in on that entry to the 17th room or beyond, the pressure being supplemented by waves coming through the 3 & 4th rooms off the 9th Right.

The branch from the 8th passing down the main slope ran into 9th Right and spread through the open net work of rooms. The explosion was quite intense in this area judging from the heat effects its intensity may have been added to by a small percent of methane in the heads of the places working in vertical coal. The return wave was very strong as the burning gases sought outlet through the various openings up the pitch.

Branches of the explosion passed up the connecting raise rooms on the right side from entry to entry, so that there was a strong pressure from out of 7, 6 & 5 rights, whereas on the left side the flame penetrated only a short distance into the 7, 6 & 5 Lefts.

The explosion wave straight up the main slope which was most intense at the 8th left gradually died into a mere inflammation at the 4th entries, due to the wet condition.

NOTES ON THE ACTON #2 MINE

wherein occurred an explosion on November 20, '13

- * - * - * - * - * - * -

The following notes include only those which were taken independently of Messrs. G. S. Rice and E. B. Suttan, and are for their use in the preparation of the final report on the explosion.

- * - * - * - * - * - * -

SEVENTH LEFT ENTRY:-

- At entrance, 6 wrecked cars; one loaded car off track, standing upright; one loaded car overturned. Much dust; no coke.
- 1st room on the 8th left entry had been holed thru to 7th left entry; the boards of the brattice closing this hole-thru had been blown out down the pitch; but on the upper side of this hole-thru the roof and ribs were plastered with road dust, 1/4 inch thick.
- 3rd chute; crosscut brattice blown out clean, boards found up the pitch.
- 4th chute; brattice blown up the pitch.
- 5th chute; brattice uninjured.
- 6th chute; brattice blown up the pitch; scouring on inby ribs.
- 7th chute; there is an undercast in the aircourse in this chute; the floor of the undercast was not disturbed, but the inby timber wall was blown inby; some scouring showing force in this entry.
- 8th chute; brattice blown up the pitch; on entry rib inby this chute, a piece of curtain was "plastered" on outby face of projecting rock, showing an inby motion.
- 9th chute; Brattice blown up the pitch. A mule's harness lay just inby this chute on the entry. Mr. Steel claimed that the harness had been pulled off the mule before the explosion and that the driver was taking the mule out of the mine.
- 10th chute; intact; scouring becomes less pronounced.
- 11th chute; an electric air drill on a car off the track; outby end of car covered with debris; brattice intact except for one board which was blown up the pitch.
- 12th chute; because of a flat place in the seam, a cross entry had been driven to the left of the 7th left entry about the location of this chute; the curtain across this cross entry was intact and not scorched. There were 4 or 5 chutes inside this curtain; no evidence of force or heat; water was running on the lower part of this cross entry, but it was dry at the face; the brattice in the crosscut between this cross entry and the 7th left entry was not disturbed;
- 13th chute; at about the location of this chute, but on the 7th left entry, the collar of the mule's harness mentioned above was found; the straw from the collar was strewn along the entry outby.
- 17th chute; the man who had been working in this room walked with other miners to the sidetrack at the entrance of the 7th left; he felt too weak to proceed farther and sat down and went to sleep; the other miners walked farther into the afterdamps and were overcome; he woke up later, walked up the slope to the 6th left where he met the rescuers and was saved.
- 14th chute; inside above curtain; this room is connected thru to the 6th left entry.
- Face of 7th left entry is in fault. No gas here, according to test by G. S. Rice.

Notes on Acton #2 Mine, Continued.

NINTH RIGHT ENTRY:-

At entrance, 4 cars wrecked; on inby side of last car, mule's hair on rib in such a way as to indicate inby motion; claimed by some that the mule was dragged from here and that in twisting him about to get him between the cars and the rib there must have been a certain turning motion that would plaster the hair in such a way as to make it appear that he was blown inby. Harness of mule was lying on the entry near the cars. Miners' boxes were blown outby; curtain was plastered against inby end of inby car.

The aircourse had struck a vertical fault and lost the coal.

On the right side of the entry, at the nose formed by the turning of the 1st room to the right and from where the miners' boxes were blown, coke was found in cracks near the roof on outby faces.

1st room on left side; coke on ribs and props, especially lying on horizontal projections and on the floor.

2nd room on left side; Much coke on props, roof and ribs, a large amount of coke in place; props are charred and appear to have been on fire; the crosscut between rooms 1 and 2 had much plastered coke on the ribs; less heat in the face of room #2; at this face there were 4 cartridges each about 36 inches long of black powder which lay unfired; the two miners who were in this room apparently heard the explosion and were running out when the force and flame overtook them at the switch of the #1 room; the men were burned. A car was standing on the track at the entrance of room #2; little coke on car. Most heat developed in room #2 opposite crosscut into room #1.

3rd room on left side; the entry seems to split here due to faulty coal; there was some coke in the entry opposite this room, but the coke is much less after passing inby from room #2.

Gas found in rooms Nos. 1 and 2 on the left side.

A blown 25-lb keg of black-powder was found on the entry between the slope and the #1 room on the left side.

1st room on right side; this room was not holed thru to the 8th right entry.

2nd room on right side; scouring at room neck showing outby motion; this room was holed thru to the 8th ~~right~~ right entry, and was not bratticed. No coke.

3rd room on right side; this room was holed through to the 8th right entry and the board stopping was blown down the pitch; scouring in this room showing direction down the pitch just inby the hole-thru.

4th room on right side; holed through into the 8th right entry with opening 3 ft by 4 ft; evidence of motion down the pitch thru this hole; some coke on the roof just on the room-side of this hole-thru. This hole was not closed at the time of the explosion.

EIGHTH RIGHT ENTRY:-

The overcast to this entry was blown up the slope;

Inby from the hole-thru to the 9th right entry, the scouring shows outby motion and no heat; 75 ft inby hole-thru to 9th right entry was blown powder keg.

At entrance, 7 mine cars blown somewhat inby; heavy double ~~xxx~~ curtain on entry blown inby

Room #14; miner found lying across tracks, headoutward, face downward; a blown keg of powder where the miner was; a piece of canvas was wrapped around prop.

Room #15; coke.

Notes on Acton #2 Mine, continued.

SEVENTH RIGHT ENTRY:-

No one was working in this entry at the time of the explosion.
The overcast was blown out to the slope.
At entrance there were 5 mine cars which had been moved somewhat outby.
The brattice at the hole-thru from room #2 on the 8th right entry was blown up the pitch and found out on the slope.
The curtain between rooms Nos. 3 and 4 was blown outby.
The coal on the ribs of the hole-thru from room #3 from the 8th right entry seemed to have been somewhat fused by heat and were polished by scouring.
Room #9, scouring showing outby movement.
Room #10, considerable dust, and less scouring.
Room #14, holed thru to the 6th right entry; brattice at entrance blown up the pitch.
Room #16, one board of the brattice blown up the pitch.
Room #17, holed thru to the 6th right entry; curtain brattice intact and hanging down the slope as though the final movement at this room-neck had been down the pitch.
At face of entry, 5 empty powder kegs.
In room #3, fire was discovered on Nov 23rd and extinguished. It appeared as though a prop had been set on fire and that coal had fallen on top of the still burning prop; the coal was burning when the fire was discovered.
There was a large amount of water standing on the entry floor for practically its entire length. Considerable dust was floating on this water. It is probably true that a large amount of this water had collected subsequent to the explosion. The floating dust and the dust on the ribs showed that while the floor was very wet there was available considerable dry dust.
The electric cable which ran from the surface to the electric pump on the slope near the 9th right entry was broken at the location of the overcast on this entry.

SIXTH RIGHT ENTRY:-

The overcast showed signs of farce having come thru it and swelled it.
On the siding at entrance there was coke on outby faces; also a large plaster of coke in a crevice pointing outby.
3 men were found on the entry between rooms 5 and 6, and 2 men between rooms 6 and 7. These 5 men were not burned nor mutilated.
Room #6, the only one holed-thru to the 5th right entry.
Stoppings at room-necks 10 to 14 intact. Also, stoppings from room #17 to the line brattice in the entry intact.
At the hole-thru from room #17 on the 7th right entry; a plowed furrow indicated movement up the pitch through this hole-thru; much rib-and-road dust plastered on the entry ribs immediately opposite and somewhat inby this hole-thru.
Much standing water on the floor of this entry inby from room #7, and the floor was very moist outby from this room #7.

Notes on Acton #2 Mine, continued.

FIFTH RIGHT ENTRY:-

The overcast was wrecked, it being reported that portions went some up and some down the pitch.

The board brattice in the first room was blown out, direction disputed.

Globules of coke on entry between rooms 3 and 4.

The aircourse for this heading was down the pitch from the entry; room #6 from the 5th right entry holed-thru into the aircourse of the 5th right entry; this hole-thru was not opposite any cross-cut between the 5th entry and its aircourse; the force coming up the pitch thru this hole-thru had a choice therefore of passing thru the first crosscut inby and the first one outby with considerable violence; coke was found plastered on the rib of the outby crosscut near the 5th right entry. A wooden door on the 5th right entry between the above mentioned inby and outby crosscuts was wrecked; the door had been just inby room 8 off the 5th right entry; the post which had been on the low side (down the pitch) of the entry and about half the door were blown 20 ft inby along the entry, and coke was found on the roof near where it was lying; the framework which had been on the high side of the entry and the balance of the door was blown outby 33 ft.

Room 14; plastered coke at neck.

Room 15; heavy plastering of coke; coal fused on edges.

Room 16; in the crosscut opposite this room neck there was plastered coke.

Room 17; no coke at neck.

Room 19; coke plastered thick in crevaces.

EIGHTH LEFT ENTRY:-

Fall of roof on slope opposite entrance to this entry; also extended to the mouth of the entry.

5 cars wrecked on the siding at entrance; mule killed just inby the cars.

Scouring shows outby motion.

Wooden brattices and curtain brattices, Nos. 1 to 5, and No. 14 blown out and down the pitch; the balance of the brattices were blown up the pitch.

~~By~~ Inby room #9 on entry, there was an exploded powder can.

A few globules of coke on entry ribs between rooms Nos 10 and 11.

An isolated splash of coke in roof projection opposite room 12.

Coke on inby faces opposite room #13.

Chute to room 14; the outby rib of this room neck shows coke blisters and coke in place; coke in place (not quite so thick) on inby rib which becomes much less around on the entry. On the entry there are coke splashes on inby faces.

Room-neck to No. 15; coke in place on outby rib, very much less on inby rib.

Very little coke on the entry between rooms 14 and 15.

An exploded powder keg found inby entrance room 15, along upper rib of entry; this keg had probably been in the miner's box which was found here with the top blown off; in this box there were 3-1/2 sticks of monobel which was not ignited, although fuse in the box had been burned; 10 ft inby the powder box in crevaces in the roof there were coke splashes on outby faces; also coke on the floor of the entry.

Notes on Acton #2 Mine, continued.

EIGHTH LEFT ENTRY:- (Continued)

Room #16; on outby rib of room neck, a few large globules of coke near the roof; at the time of the inspection, an explosive mixture of gas showed in a safety lamp 12 ft from the face of this room; it is reported that a man was required after the noon shooting to brush the gas from the faces of this room, room #17, the aircourse and the entry; it is also reported that the miners refused to take his word for the fact that he had brushed out the gas until he had taken a naked lamp and gone all the way to the face; a colored miner worked in this room and was found on the entry decapitated.

Room #17; between room 16 and 17 along the entry some coke splashes on outby faces; in the room-neck, there was a small amount of coke on the outby rib near the roof and on inby faces; this room is reported to have made explosive gas.

Room 18; from this room neck to the face of the entry there were thick filaments of coke hanging from all faces. At the room neck, there were splashes of coke on the outby rib on inby faces.

Room #15; at the time of the inspection there was marsh gas in the last room-crosscut about 25 ft down from the face. 14

Room #14; at the time of the inspection, this room/contained about the same amount of gas as did room No. 15.

Room #19; this was the last on the entry; at the neck there were filaments from all faces.

36 ft back from the face of the entry was an exploded powder can; it appeared as though this can had not contained much powder when it exploded.

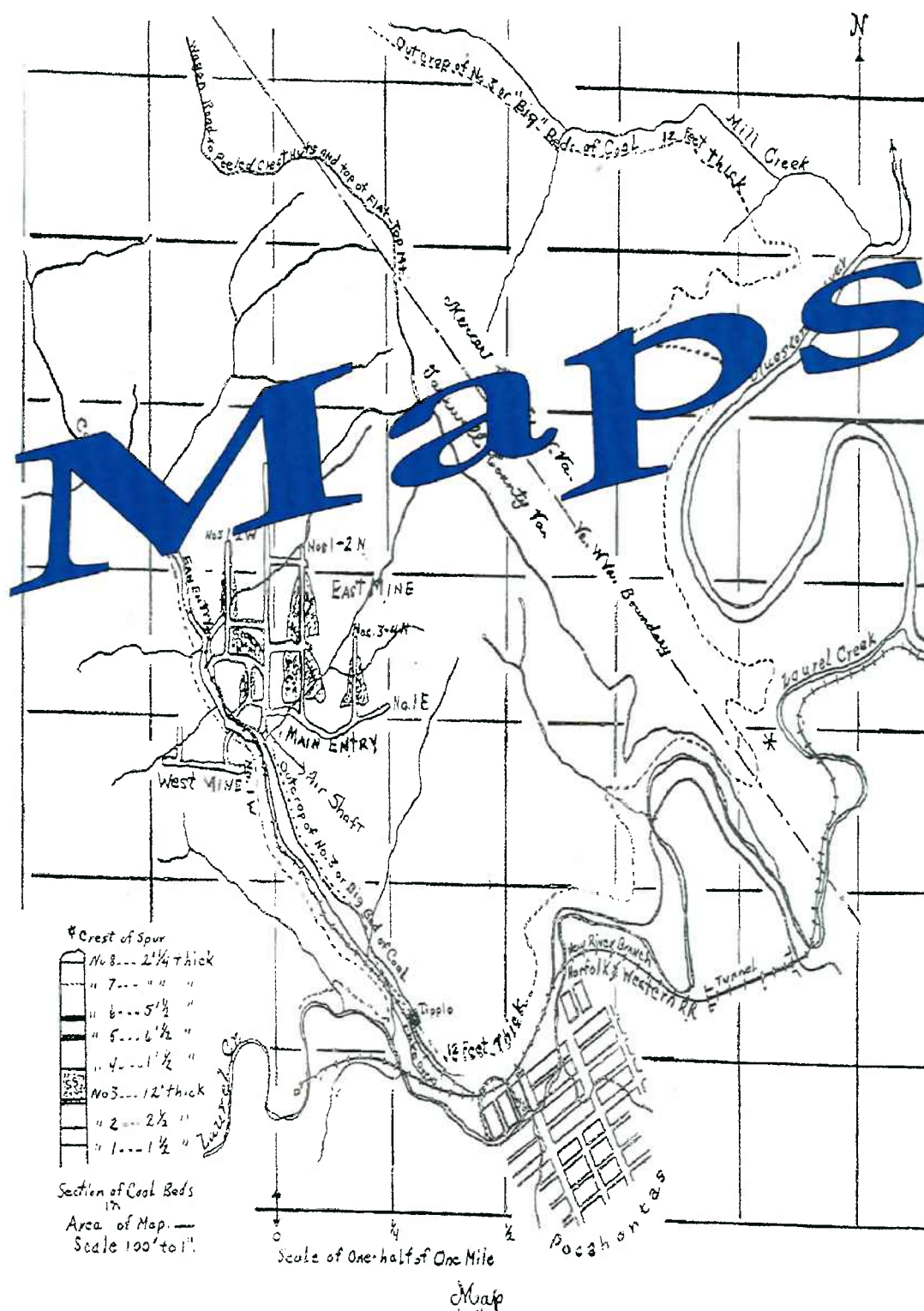
The entry miners tools were in order 30 ft from the face.

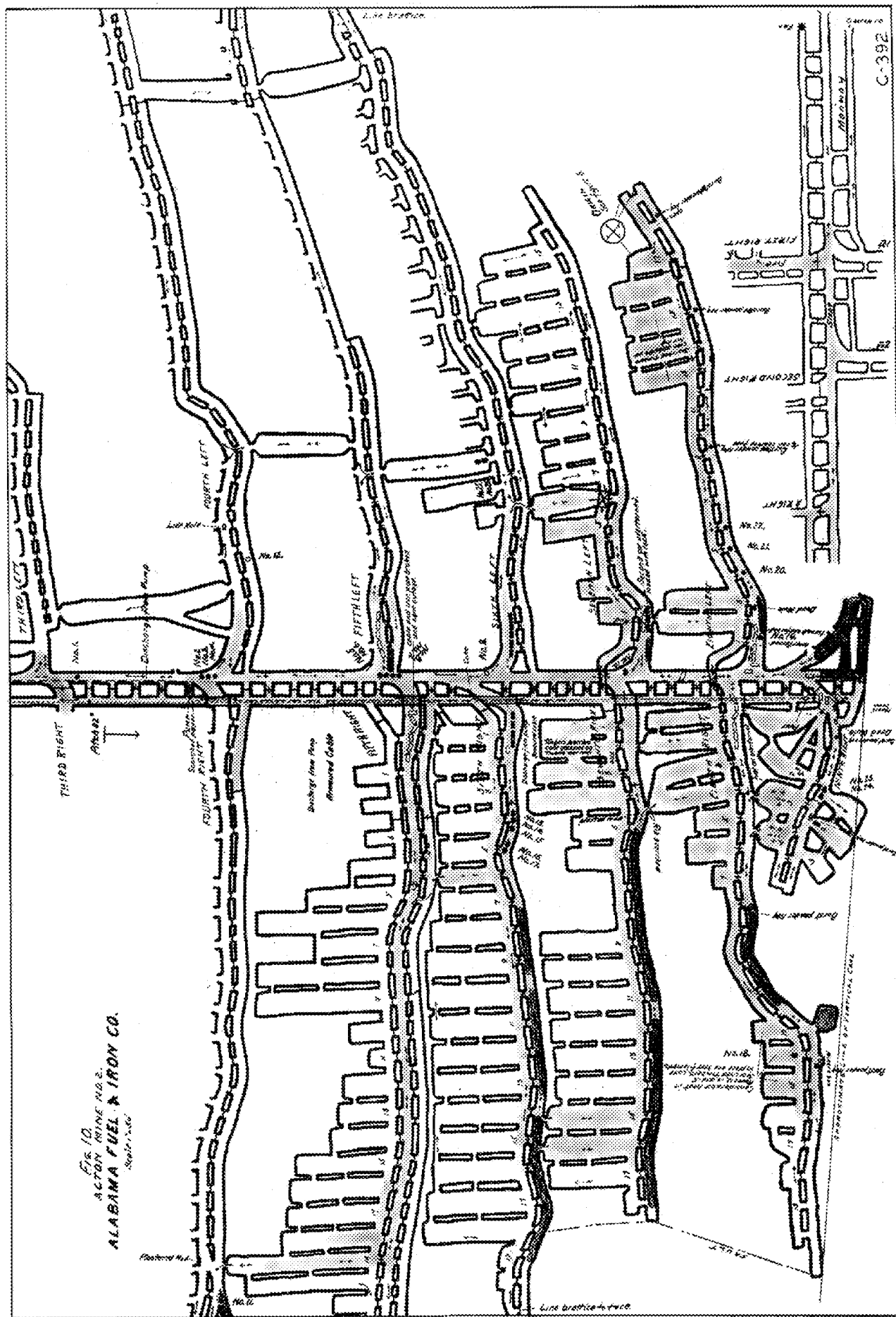
The 4 shots at the face were examined minutely, as were also those in the air-course and rooms 16 and 17; sketches etc being in the hands of Rice and Sutton.

The mine usually shoots "on turn"; but the day of the explosion the mine was "quartering", and the miners shot when they pleased. Many had shot and left the mine before the explosion occurred. ~~After~~ The run was over at 2:30.

There was a little water on the floor of this entry near room #8, and at the siding; but all the rest of the entry and the rooms were very dry and dusty.

R. Williams





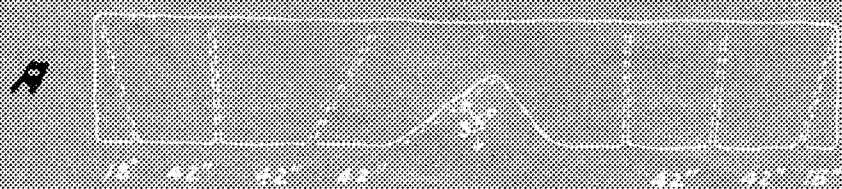


Fig. 4.
Method of Mining
in Rooms
Scale 1" = 8'

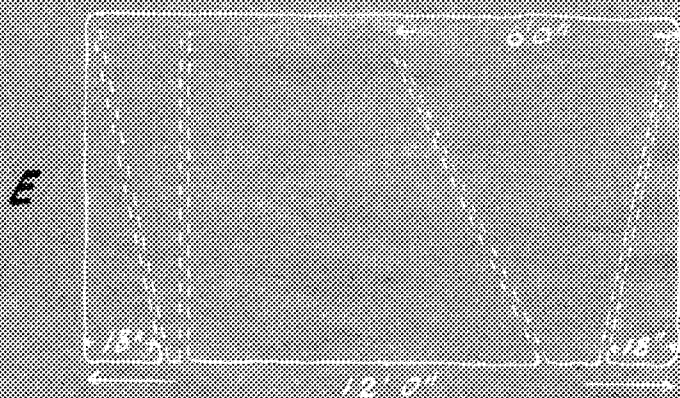
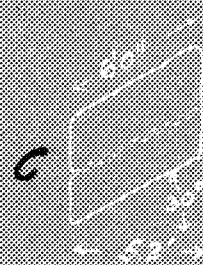
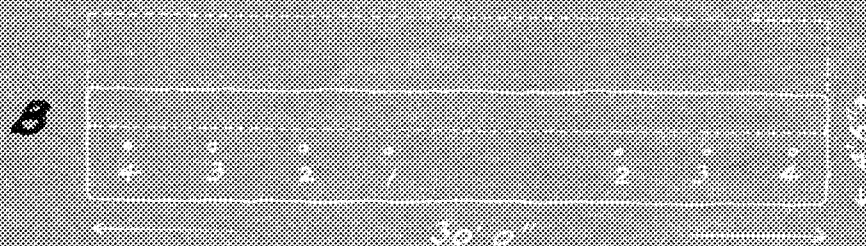
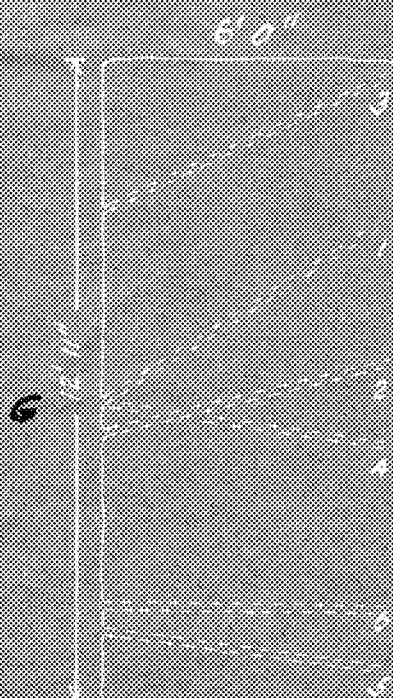
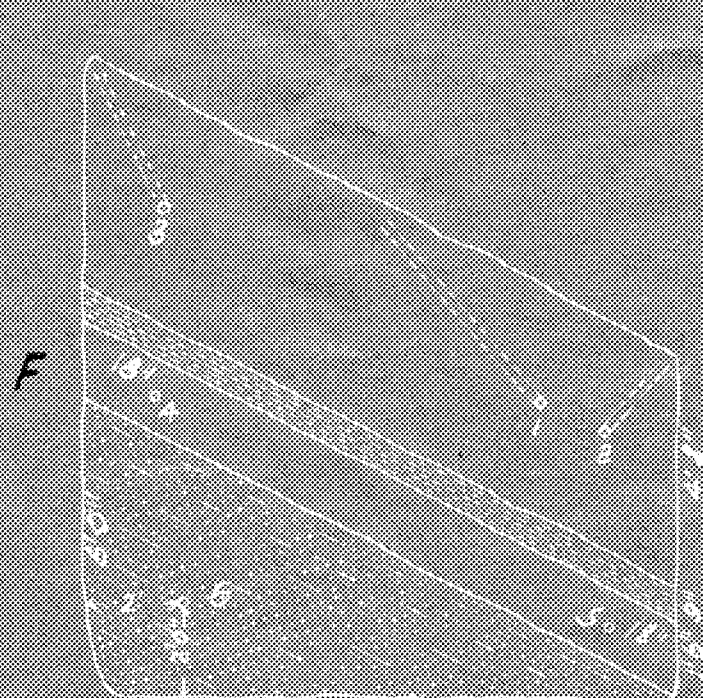
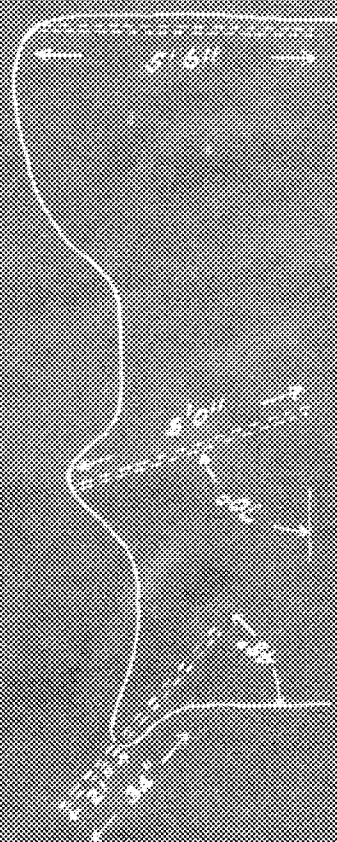


Fig. 5.
Method of Mining
in Entries
Scale 1" = 4'



PLAN



FRONT ELEVATION

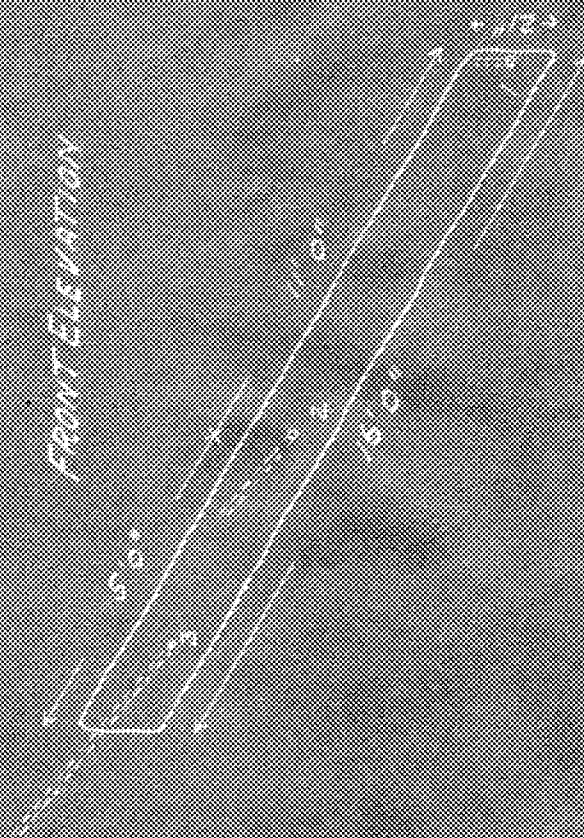
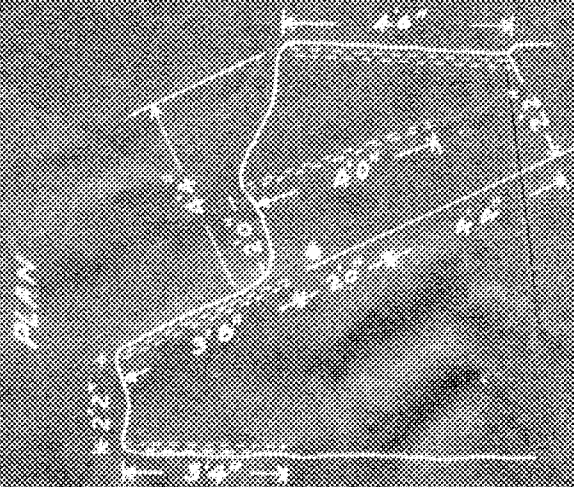


FIG. 8.
SECTION THRU CO FIG. 6.
FACE OF 30' LEFT AIRWAY.
Scale 1/4" = 1'



FRONT ELEVATION

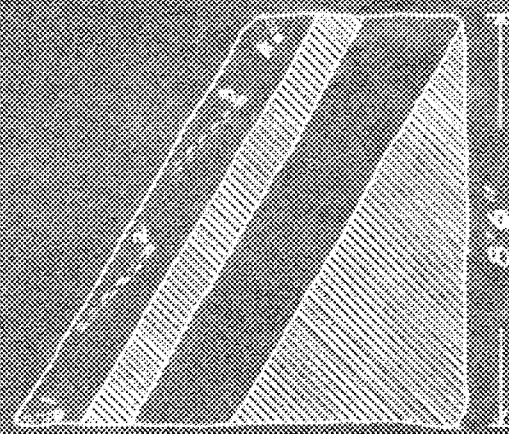


Fig. 9
Section thru EF-Fig. 6.
FACE OF ORIENTENTRY
Scale 1/2" = 1'

FIG. 7.
 Section thru AB Fig. 6.
 Room 17 on 8th Left Entry
 Scale 1/32'





Newspaper Accounts

SEVEN DEAD ARE TAKEN FROM MINE

Between Twenty-five and Forty Entombed by Explosion at Acton, Ala.—Three Brought Out Alive by Rescue Party.

Acton, Ala., November 18.—An explosion in No. 2 mine of the Acton Fuel and Iron Company here at 3:45 this afternoon entombed between twenty-five and forty miners, according to estimates of company officials. At 9 o'clock tonight seven dead had been removed from the mines and three other mines had been rescued alive.

Of the victims some are white and some are negroes, as the mine employs both races. The normal quota of employees was seventy men, but yesterday was pay day at this mine and some did not report for work today. Twenty-three diggers entered the works this morning and early tonight it was not known how many others reported during the day.

The first rescue parties who entered the mine this evening searching for any who might be alive, reported that they had passed several dead bodies lying beside the tramway of the sloping entrance shaft. These had not been brought out.

Mine officials hurried here from Birmingham, twenty-four miles away, immediately after they learned of the explosion. They brought State Mine Inspector C. H. Nesbit and an automobile load of surgeons.

Acme mine No. 2 which lies in Shelby county, on a branch line of the Louisville and Nashville railway, has been considered one of the best equipped in the district. So far as ascertained the mine's workings were not much damaged by the explosion, the cause of which has not been determined, and it is expected that the work of removing the living, if any, and the dead will be speedily accomplished.

RAY INVESTIGATES EXPLOSION CAUSE FOR MINE BUREAU

Chief State Mine Inspector Will Report To the Governor Next Week.

Assistant State Mine Inspector W. R. Ray is at Acton No. 2 Mine, of the Alabama Fuel and Iron Company, making preliminary investigation into the explosion that occurred Tuesday afternoon, causing the death of twenty-four men.

Chief State Mine Inspector C. H. Nesbitt will return to Acton about Saturday and will make a thorough investigation, and by Tuesday or Wednesday of the coming week, will make a full report to Governor O'Neal. No opinion is expressed by Mine Inspector Nesbitt as to the cause of the accident, the official report to be his first statement.

However, the Chief Inspector has notified the Alabama Fuel and Iron Company that the investigation will be thorough.

The funerals of the victims were begun Wednesday afternoon, and before another twenty-four hours it is probable all the men will have been buried. The Alabama Fuel and Iron Company gave instructions of the undertakers that no care should be spared in giving the unfortunate men the best burial possible.

No great damage was done to the mines. The fans were not hurt. Very few brattices were destroyed, and instructions have been given that while the wrecked brattices are being replaced, there must be a close examination of all brattices.

The mines will be ready for operation on or before Monday, and it will be up to the company to resume just when they please, when Chief State Mine Inspector Nesbitt has finished his official investigation.

The explosion has been termed a light explosion, though there was a terrible toll of life. That every man in the mines was not killed demonstrates that the explosion was more nearly local than anything else. As to dust in the mines, there was so much water in the mines that

RAY INVESTIGATES EXPLOSION CAUSE FOR MINE BUREAU

many of the rescuing parties got mud on their shoes.

In one entry there was a victim, whose face and almost his entire head was under water. The belief being expressed that he might either have become frightened or overcome by the afterdamp and then fallen into the water and was drowned. There is but little indication of dust having caused the accident, though it is possible.

Fourteen Were Asphyxiated.

The condition of bodies of the immediate victims of the explosion did not show there was very much dust. Fourteen of the victims were asphyxiated, according to the information in the State Mine Inspector's office, the other ten men being killed outright by the explosion.

Another fact about the explosion that is learned is that while it is believed the main cause or start of the explosion was in the eighth or seventh right, men on both sides of these entries came out of the mines after the explosion and were not informed as to what had happened.

Burns Kiltrell, a well-known boss driver, was killed, together with a negro, an entry or two below the place where the explosion is said to have happened. They were cleaning over the track in the slope. This is work that is sometimes done by boss drivers after the coal for the day has been sent to the top.

Three Greeks who came out of the mines after the explosion, met rescuing parties going in and told of seeing two or three dead men on the way, but they did not tarry long enough to make inquiry as to what had happened. It is a rule in mines that when there is the least indication of trouble having happened, everybody should get out as quickly as possible.

E. B. Sutton, the federal rescue station agent here, together with H. H. Hamilton, of the DuPont Powder Company, who came up to the city Wednesday evening, returned to Acton Thursday morning and will obtain data that will be furnished officially to the Bureau of Mines of the Government at Washington.

A regular fire boss is employed in the Acton mines. The records are said to show that the mines had been inspected as required by law, and no gas reported.

Funerals of Victims.

The funerals of the victims of the explosion are taking place just as quickly as the bodies reach the places to which they were assigned.

Burns Kiltrell was buried in Birmingham Thursday afternoon.

The remains of Eugene Hewitt have been sent to Montgomery.

Ben Thompson, Wilton Walker, Will Hampton and Albert Clifton were buried in the vicinity of Acton.

The remains of Jesse Pate went to Salisbury, N. C.

The body of Jesse Taylor will be buried at Calera.

Will Holcomb was buried at Patton's Chapel, a few miles from Acton.

J. C. Cook, William McClellan and Charles Malcoms were buried in that section also.

H. J. Childers' body was sent to Atlanta.

Ed Bragg, J. W. Langston and L. C. Patterson have been laid to rest near the waterworks on Red Mountain.

J. W. Perkins, E. L. Perkins and J. D. Horton have been buried at Calera.

Lee Wallentzen's body was brought to Pratt City, while Charles Collum and Joe Hushvarina were also buried at Acton.

When asked for a statement as to the accident Thursday, Chief Mine Inspector Nesbitt said: "My official report on the accident will be sent to the Governor's office Tuesday or Wednesday, possibly before that time. I do not care to make any official statement about the disaster until the official report has been sent. Of course, we all deplore the accident."

"The mines are not badly damaged, and within another day or two will be in condition to resume operation. Warnings are being sent continually to miners and mine workers throughout the district to exercise the greatest care in their work. These warnings will be continued and assistant inspectors will advise everybody. I least expected trouble in the Acton neighborhood."

"I was of the opinion that conditions there were the very best. But—in this business one cannot tell when trouble is likely to occur. I expect to get back to Acton on or before Saturday and make the official investigation. I shall call a spade a spade, having no excuse to render and only seeking what can be determined beyond doubt in order to place the blame where it belongs."

SCORE DIE IN MINE

Sixteen Bodies Taken From Shaft After Explosion.

RESCUE PARTIES AT WORK

Three Greeks Found Alive in Workings at Acton, Alabama.

Boss Driver Kittrell and Four Other Americans Among the Known Dead. Several Additional Miners Missing and Have Probably Been Killed. Corpses Seen Lying Along Tramway, but Not Carried Out by Rescuers.

Acton, Ala., Nov. 12.—Sixteen miners are known to have been killed, and several others were still missing at a late hour tonight, and are believed to be dead, as the result of an explosion this afternoon in the Alabama Fuel and Iron Company's mine No. 2, near here.

Among the Americans known to have been killed, their bodies being among those so far recovered, are:

L. L. PATTERSON.

E. BRIGHT.

JOHN LANGSTON.

HENRY CHILDERS.

Boss Driver BURNS KITTRELL.

All but One Married.

All except Bright were married. Kittrell went into the mine only five minutes before the explosion to do some cleaning. Three of the five rescued alive are Greeks.

The first rescue parties who entered the mine tonight searching for any one who might be alive reported that they had passed several dead bodies lying beside the tramway of the sloping entrance shaft. These had not been brought out.

Mine officials hurried here from Birmingham, 24 miles away, immediately after they learned of the explosion. They brought State Mine Inspector C. H. Nesbitt and an automobile load of surgeons.

Mine Is Well Equipped.

Acton mine No. 2, which lies in Shelby county, on a branch of the Louisville and Nashville Railroad, has been considered one of the best equipped in the district.

It has a single-track slope, and uses an 18-foot fan, with the split air system. So far as ascertained the mine workings were not much damaged by the explosion, the cause of which has not been determined, and it is expected that the work of removing the living, if any more remain, and the dead will be speedily accomplished.

Bluefield Telegraph
Bluefield WV
11-19-1913

SIXTEEN ARE DEAD IN ALABAMA MINE

**Explosion Entombs Forty
Greek and Negro
Laborers.**

ACTON, Ala., Nov. 18.—An explosion in a mine of the Alabama Fuel & Iron Company this afternoon entombed between 25 and 40 miners.

Up to 12 o'clock 16 bodies had been removed from the mine.

At midnight the rescuing party took out one miner alive, making six rescued.

All except Bright were married. Kittrell went into the mine only five minutes before the explosion, to do some cleaning. Three of the rescued are Greeks, and a number of the dead in the mine are thought to be Greeks.

Of the victims some are white and some are negroes, as the mine employed laborers of both races. The normal quota of employes is 70 men, but yesterday was pay day, at this mine, and some did not report for work today. Twenty-three diggers entered the workings this morning, and early tonight it was not known how many others reported during the day.

The first rescue parties who entered the mine this evening searching for any who might be alive, reported that they had passed several dead bodies lying beside the tramway of the sloping entrance shaft. These had not been brought out.

Mine officials hurried here from Birmingham, 24 miles away, immediately after they learned of the explosion. They brought State Mine Inspector C. H. Nesbitt and an automobile load of surgeons.

Birmingham Ledger
Birmingham, AL
December 17, 1913

DUST, POWDER AND METHANE CAUSED MINE EXPLOSION AT ACTON — INSPECTOR NESBITT

CHIEF MINE INSPECTOR MAKES OFFICIAL REPORT OF DISAS- TER TO GOVERNOR—DETAILS OF INVESTIGATION

Montgomery, December 16.—(Special.)—In his official report to the governor on his investigation of the mine explosion at Acton on November 13, in which 24 persons were killed, Chief Mine Inspector Charles H. Nesbitt declares that three elements figured in the explosion, dust, black powder and methane.

The report was filed in the office of the governor today.

The mine inspector places the greatest blame, however, on black powder, and calls attention to the fact that his department has endeavored to induce mine operators to discontinue the use of that explosive.

The report of Mr. Nesbitt gives a detailed account of his investigation and the causes which, in his opinion, caused the mine disaster.

Mr. Nesbitt began his investigation as soon as he heard news of the explosion, but on account of the bad ventilation in the mine was unable to explore its interior until November 24, when he was accompanied by District Mine Inspectors Hillman, Webb and Kelso.

Trace Course of Explosion

"The four of us spent the 24th and 25th in the mine tracing the course of the explosion and endeavoring to locate the origin and cause of same. After a thorough investigation we came to the conclusion that the explosion originated in the eighth left entry and was caused by one, two or possibly three blown-out shots fired in the face of the entry face or air course and a slab shot in No. 17 room

respectively. All three shots were badly placed and it is my opinion that one, and possibly all three, were blown-out shots."

Continuing, Mr. Nesbitt says: "The explosion traveling out of this eighth left entry exploded kegs of powder in its path at No. 15 room and another at No. 2 room. Here it was reinforced by a small amount of methane (gas) lying in the faces of one or possibly two worked-out rooms."

The chief mine inspector then goes more into detail in describing the causes of the explosion and places the blame on dust, black powder and methane. However, he declares that the amount of methane was always unusually small in the mine, and that reports had indicated that there was never any great danger from dust.

Use of Powder a Custom

"As to the use of black powder," he declares, "it has been the custom in Alabama, as well as in other states, for years to shoot coal off the solid with black powder and this custom cannot be too strongly condemned. The United States bureau of mines is demonstrating from time to time the dangers of using black powder in coal mines. This bureau has shown by successful demonstration that one pound of dust per lineal foot will precipitate an explosion when ignited by a blown-out shot from black powder." In concluding his report, Mr. Nesbitt says:

"It is the opinion of this department that this explosion was due to blown-out shots from black powder (one to three shots) which were fired in the eighth left entry air course and No. 17 room. In conclusion I would say as to blown-out or windy shots, that the immediate effect would depend upon the condition of the working places; in other words, a blown-out shot fired in the absence of dust, black powder stored along the entries, or gas, ordinarily would not result in any serious harm."

EXPLOSION CAUSED BY CARELESS WORK

Acton Disaster Result of Badly Placed Shots, According to Report of Chief Mine In- spector

Three badly placed blow-out shots, in which black powder was used, reinforced by explosions of gas and coal dust, caused the terrible mine disaster at Acton No. 2 Mine in Jefferson County, which occurred November 18, and in which twenty-four persons were killed, according to an official report filed in the office of Governor O'Neal by C. H. Nesbit, Chief Mine Inspector. Mr. Nesbit, assisted by Inspector Webb, Kelso, Ray and Hillman, made an exhaustive examination of the mine during the latter part of November and the first part of December.

Originating in the eighth left entry of the mine, the explosion spread to several other compartments and entries and in its path exploding several kegs of powder which increased its intensity. The three shots were fired by three miners, all of whom were killed. Twenty-four persons were killed and five were rescued, according to the report. A list of those killed and those rescued was attached to the report. Nearly all of the men were Italians and Greeks.

In his report Mr. Nesbit strongly condemns the use of black powder in the mines. He declares that there is no law to prohibit the use of black powder but that he has urged all mine operators to discontinue its use wherever possible. Mr. Nesbit declares that the United States Bureau of Mines has conducted experiments which show that the use of black powder in coal mines is extremely dangerous.

Mr. Nesbit describes in his report the work of rescuing the miners and of the prompt response of the mine rescue cars belonging to several big coal corporations in the Birmingham district. The Chief Inspector declares that the mine was inspected twenty-five days before the disaster by Associate Inspector Ray, who rendered a report in which he declared that he found nothing of a dangerous nature.

Birmingham Ledger

Birmingham AL

Dec. 17, 1913

REPORT ON ACTON DISASTER.

Mine Inspector Nesbitt Gives Causes of Explosion.

MONTGOMERY, Ala., Dec. 17.—(Special.)—Menthone (gas), coal dust and black powder were responsible for the explosion at the coal mine of the Alabama Fuel and Iron company, 24 miles from Birmingham, on Nov. 18, which caused the death of 24 persons, according to a report submitted to Governor O'Neal by Chief Mine Inspector C. H. Nesbitt. The inspector made a complete investigation immediately following the disaster and he states that an inspection which he made 25 days prior to the explosion was favorable.

In his report, Mr. Nesbitt condemns the use of black powder, but says that Alabama is without a law requiring other kinds of powder to be used in mines. He urges mining companies to dispense with the use of black powder as much as possible and he believes they will accept his suggestion.

The chief inspector was aided in his investigation by his associates, Messrs. Hillman, Kelso, Webb and Ray.

Birmingham Ledger
Birmingham, AL

BODIES OF VICTIMS AT ACTON MINE INTERRED

State Inspector Nesbitt Will Conduct an Official Investigation

State Mine Inspector Charles Nesbitt will leave for Acton either Friday or Saturday to conduct an investigation into the cause of the mine explosion Tuesday, which snuffed out the lives of twenty-four men. The investigation will probably occupy two days. The testimony of officials of the company and of miners who were underground when the explosion took place will be heard, and an effort will be made to ascertain the cause.

No changes in the list of dead, as compiled by the timekeeper of the Alabama Fuel and Iron company immediately after the disaster has been made. The last body, that of a Greek, who was found far in the mine, was removed about 3 o'clock Wednesday morning. About an hour later the mine rescue car returned to Birmingham.

Disposal of Bodies.

The disposal of the bodies of the victims was arranged by officials of the company on Wednesday. Relatives of every man killed were notified and arrangements were made to hold the funerals. The bodies of Ed Bragg, J. W. Langton and L. C. Patterson were buried Wednesday afternoon at Waterworks, a small camp on the Cahaba river. The bodies of J. W. Perkins and K. L. Perkins, his brother, were sent to Calera for interment Thursday morning. The remains of H. J. Childers were interred in Attalla Thursday morning. The remains of Burns Kittrell, the boss driver, were brought to Birmingham for interment. The bodies of J. A. Horton and his brother, J. D. Horton, were sent to Helena Wednesday afternoon. The bodies of Joe Bushvarino and Lee Wallantine will be sent to Pratt City for interment Thursday afternoon. Funeral services over the other white bodies, William M. Clellan, Joe Cook, the Rev. Will Holsomback, Charles Colum and Charles Falomas will take place in Acton Thursday. The company is paying all the funeral expenses and is also paying passage of the relatives of the deceased miners to Birmingham from their homes. Charles F. DeBardeleben and Henry DeBardeleben are remaining at Acton to care for the stricken families.

Chief Nesbitt says he is sure that it was not a dust explosion, but further than this he will not venture an opinion.

THIRTY MEN ENTOMBED IN MINE IN ALABAMA

Explosion Traps Operatives In Mine
No. 2 of Alabama Fuel & Iron
Company Near Acton.

LARGE NUMBER OF THE DEAD ARE GREEKS

OFFICIALS, ACCOMPANIED BY RESCUERS AND SURGEONS,
HURRY TO THE SCENE—SEVERAL BODIES WERE RECOVERED AND IDENTIFIED—BELIEVED THAT DEBRIS WILL BE
CLEARED AWAY BEFORE THIS MORNING.

Acton, Ala., Nov. 18.—Nine miners are known to have been killed and at least a dozen others were still missing at a late hour tonight as the result of an explosion this afternoon in the Alabama Fuel and Iron Company's mine No. 2 near here.

The exact number still entombed is uncertain, as mine officials here are unable to say how many men were at work in the mine when the explosion occurred. Estimates of miners employed near the scene of the disaster place the total number who entered the mine today at from twenty-five to forty.

Systematic rescue work has been in progress since 6 o'clock tonight and those in charge believe that the great mass of rock and coal jarred loose by the explosion will be penetrated before morning.

Up to shortly before midnight only five miners had been taken out alive. They expressed the belief that many of those still entombed had been killed by the force of the explosion.

The names of the dead brought to the surface by 9 o'clock included:

L. L. Patterson.

E. Bright.

John Langston.

Henry Childers.

Boss Driver Burns Kittrell.

Two negroes.

All except Bright were married. Kittrell went into the mine only five minutes before the explosion to do some cleaning.

Three of the rescued are Greeks and a number of dead in the mine are thought to be Greeks.

The usual quota of men employed in mine No. 2 is seventy, but the exact number at work when the explosion occurred is not certain. Mine officials said tonight that a checking up of the mine reports would be necessary before it could be learned definitely how many are still entombed.

The cause of the explosion has not been learned. That many of those entombed were killed by its force seems certain, as two men working near the surface at the time were blown several feet from the mine entrance.

Charles Catman, white, and Ben Thomas and Jessie Pate, negroes.

The following are not accounted for and may be dead in the mine:

Will McClellan, John Horton, James Horton, J. L. Perkins, K. L. Perkins, Cephus Cook, Charles Pucareno, Charles Maloney, John Papergine, Charles Colum and Grant Holsumbach.

Rescuers at Work.

Officials of the mine, accompanied by rescue workers and surgeons, were hurried here from Birmingham, and tonight every effort was being made to reach the entombed men.

Mine No. 2, which is known as Acton mine, is comparatively new, and is one of the most productive in this district. It has a daily output of 300 tons. Officials of the company said that all equipment was first class.

Acton mine No. 2 is twenty-four miles south of Birmingham on the Acton branch of the Louisville and Nashville railway six miles from Helena in Shelby county. The mine has a single track slope and used 118-foot fan with the split air system. J. G. Steel, is superintendent of the Acton branch.

While officials would make no estimate of the number of men in the mine, miners at work near the scene of the disaster insisted that at least twenty men must have been cut off by the explosion. Some estimates ran as high as 40. It was said, however, that the number certainly would not exceed this figure, as yesterday was pay day and many of the seventy men usually employed in the mine did not go to work today.

Majority Were White.

Most of the miners in number 2 were white, although several negroes are known to have been among those caught by the great mass of coal and rock that was jarred loose by the explosion. Many of the men, it is known, were foreigners.

Rescue work is being carried on systematically and those in charge predict that the work of clearing away the debris and bringing the miners to the surface will be accomplished before morning.

WESTERN
UNION

Telegraph

WESTERN UNION TELEGRAM

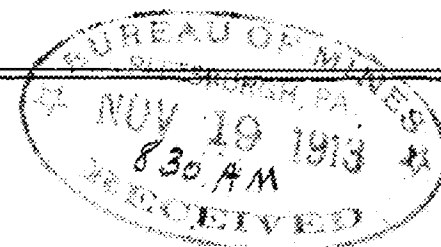
Form 1864

THEO. N. VAIL, PRESIDENT

RECEIVED AT 3152 PENN AVE PITTSBURGH

1G FS 29 COLLECT GOVERNMENT

284



BIRMINGHAM ALA NOVEMBER 18TH 1913

BUREAU OF MINES

PITTSBURGH PENNA-

EXPLOSION IN MINES ALABAMA FUEL AND IRON CO ACTION ALA AM ON MY
WAY WITH RESCUE CAR WILL ADVISE LATER

H H HAMILTON

NOV 19TH 1913

805 AM

PM

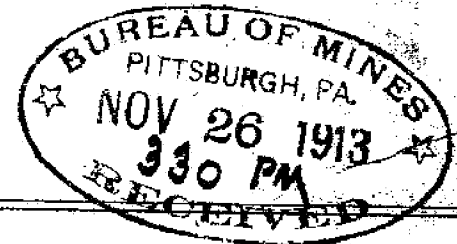
W

*W.P.
11/26/13
4:15 PM
B304*

WESTERN UNION

TELEGRAM

THEO. N. VAIL, PRESIDENT



RECEIVED AT No. 249 5th Ave., near Wood St., Pittsburg, Pa. ALWAYS OPEN

2 W PN 22 GOVT

BIRMINGHAM ALA NOV 25TH

BUREAU MINES

PITTSBURGH PENNA

FINISHED ACTION INVESTIGATION WILLIAMS AND I LEAVING FOR WASHINGTON
PER DIRECTORS INSTRUCTIONS THERE THURSDAY PITTSBURGH POSSIBLY FRIDAY

*DA 534
DA 550
DA 615
for says know
for 1000
Lombard is for
she can't pass
them 657a*

RICE
220

*new 505w
" 510w*

Telephone No. *1410 Fish*
Telephoned to *A.H.R.*
Time *834w*
By *B3* To be *mail*

POSTAL TELEGRAPH - COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT.

RECEIVED AT MAIN OFFICE
LIBERTY AVENUE AND 7TH STREET
PITTSBURGH, PA.
TELEPHONES: 1575 MAIN P AND A
2700, 2701, 2702 GRANT C D AND P

TELEGRAM

DELIVERY No.

66

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

18P-7970

DESIGN PATENT No. 40529

773. NY. FN. 25 Government

Birmingham Ala. Nov 18. 1913.

Bureau Mines

Pittsburgh, Pa.

Paul-Explosion acton no 2 near Helena 40 Men in mine at time
explosion will advise later Washington notified.

Sutton

941PM.

TELETYPE UNIT

9-45 P

REC'D BY M. G. B.

TELETYPE UNIT

POSTAL

Geo. S. Rice,

Chief Mining Engr

Pittsburgh, November 19, 1913.

BUREAU MINES. WASHINGTON. D.C.

Owing to backward and pressing nature my work will it be satisfactory send
Williams Alabama in my place. Paul leaving Santa Fe today for Pittsburgh.

Rice.

POSTAL TELEGRAPH



J. A. HOLMES

DIRECTOR

NOVEMBER 19, 1913.

RICE BUREAU MINES PITTSBURGH PA.

OWING TO WILLIAMS CONTEMPLATED RESIGNATION
IT IS IMPORTANT HE SHOULD COMPLETE HIS WORK. YOU
WILL THEREFORE PROCEED TO ALABAMA WITHOUT FURTHER
DELAY.

HOLMES

cc confirmation

Mr. Rice

POSTAL TELEGRAPH - COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT.

RECEIVED AT MAIN OFFICE
LIBERTY AVENUE AND 7TH STREET
PITTSBURGH, PA.
TELEPHONES: 1876 MAIN P AND A
2700, 2701, 2702 GRANT C D AND P

TELEGRAM

DELIVERY No.

2

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

16P-7970

DESIGN PATENT No. 40529

46. NY. FN. 26 Government

Birmingham Ala. Nov 19 1913.

Bureau of Mines

Pittsburgh. Pa.

Paul six live men twenty three dead located between and forty
in mines. exploration about completed no assistance needed.

Sutton.

THIS TELEGRAM
WAS TELEPHONED

TO

BY

Kelly
Brum AT *7* *am*

HMM--AHL

November 20, 1913.

E. B. Sutton:

Relative to enclosed report, the Director asks for a full detailed report from you as to the time and source from which he received information regarding the explosion, the time consumed in going to the disaster, and the time saved in using the truck instead of the car, and in fact any information that would be of interest to the Secretary of the Interior, Mr. Underwood or Dr. Holmes regarding the use of the truck at the Birmingham station.

Very truly yours,

H M Wilson

POSTAL TELEGRAPH - COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT.

RECEIVED AT

TELEGRAM

DELIVERY No.

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

DESIGN PATENT No. 40529

7G

20 Govt

Birmingham Ala 20

November 1918.

11 57 AM.

Bureau Mines Pgh Pa

All bodies twenty four recovered three afternoon yesterday indicate
ions point to windy shot considerable violence.

Sutton.

Reprinted to Hark



File

WESTERN UNION TELEGRAM

*442
Acton*

THEO. N. VAIL, PRESIDENT

RECEIVED AT 152 PENN AVE PITTSBURG
4G FS 19 GOVERNMENT

BIRMINGHAM ALA NOV 24TH 1913

PAUL BUREAU MINES

PITTSBURGH PENNA-

EXPECT TO COMPLETE INVESTIGATION ACTON MINE TOMORROW NOT ADVISABLE FOR
YOU TO COME

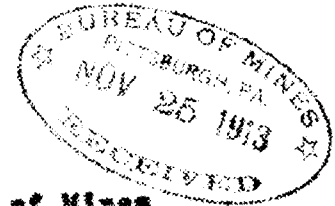
RICE

NOV 25TH 1913

815AM

*11/25/13 - main
gmc*

Western Union Telegraph



J. A. Holmes

Director, Bureau of Mines

Washington, D.C., November 24, 1913.

George S. Rice, Hillman Hotel, Birmingham, Alabama.

Paul leaves Pittsburgh tomorrow for Birmingham to take up investigations there relieving you. After his arrival and you have explained to him results of your observations to date glad have you return via Washington. If you consider Paul's coming unnecessary, wire him Pittsburgh tonight. Glad have Williams accompany or follow you here.

Holmes.

cc Mr. Paul, Pittsburgh. ✓
cc Files

March 4, 1914.

ACTON MINE DISASTER REPORT.

My dear Mr. Sutton,

I have been too busy to properly take up matters with you, but desire to find out ~~what~~ the situation is regarding your explosion reports. I would not spend too much time in map drawing, as long as there are explosion reports to be made up.

I had fully meant to work up the Acton explosion report notes as far as I knew about it, but I now despair of doing this, and I am going to send you my notes as they are so that you may incorporate same and work up the report. It may be that you are already well started on same, but we should not delay any longer in ~~putting~~ it out.

Yours very truly,

A handwritten signature in dark ink, appearing to be 'GSR' with a stylized flourish underneath.