

ACC AC 100/91 10000/148/1862 SECTIONS
JUN. 1945

1862 SECTIONS OF LINE: NAPOLI-FOGGIA
JUN. 1945

100/91 E
Report on Railway Tunnel On the Caserta to Benevento line

MR 430707 Sheet 13 Italy Road Map 1/200,000.

SUBJECT : To determine whether or not.

- (a) The tunnel in its present condition is safe to work in
- (b) The tunnel after completion will be safe.
- (c) A diversion is possible.

Description : (a) The tunnel is approximately 500 yards long and passes through solid limestone. Forty yards inside the tunnel from the EASTERN end the arch has been mined over a distance of 10 to 15 yards and the explosion has blown down the roof for a distance of 20 yards. This has created a very large pocket above the arch ring as shown in Appendix 1.

(b) The rock inside the pocket is very badly shattered and loose and continual small falls of rock are occurring. One bad fall completely wrecked three temporary setts being used to reform the tunnel and two people were seriously injured. Further falls are certain.

(c) Reconstruction of the tunnel is being effected by driving forward into the spoil with setts and following up with a brick arch ring 30 inches thick. This new brick arch ring is exactly the same as the original.

(d) A part of the old arch ring on the WESTERN side of the tunnel is bulging and may collapse at any time.

Conclusion: (a) Under existing conditions and method of construction all persons working there are in danger.
(b) Should the tunnel be completed and the brick arch method of construction used throughout, a subsequent fall from the roof of the pocket on to the top of the brick arch would collapse the latter. This could easily be induced.

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- (d) A part of the old arch ring on the WESTERN side of the tunnel is bulging and may collapse at any time.
- Conclusion: (a) Under existing conditions and method of construction all persons working there are in danger.
- (b) Should the tunnel be completed and the brick arch method of construction used throughout, a subsequent fall from the roof of the pocket on to the top of the brick arch would collapse the latter. This could easily be induced by passing trains. Therefore the completed tunnel would be dangerous.
- (b) A diversion is possible and this would be the quickest method of opening up the railway.

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