

practicable to locate the Canal on the Maryland side of the line in any other position than immediately in that valley; and where that valley is narrow, on the bank of the river?

*Answer to the foregoing interrogatory.* The survey was a preliminary survey, with a view to guide me in the location afterwards; but great pains were taken that this preliminary survey should occupy what in my judgment was the best location of the Canal; and the immediate valley of the Potomac cannot, in my opinion, be abandoned for the Canal, except at three points, one called Prather's Neck, one between Ewet's Creek and the narrows of the Potomac, and one a short distance just below the bench mark at Cumberland, where the rocks close in upon the river, as denoted in the surveys, plans, and profiles; the Canal will have to occupy as near the river as possible, to lessen expense. What we call a canal impracticability would exist in leaving the river, the expense in consequence being so enormous.

*3d Interrogatory.* (To this interrogatory the complainants by their counsel object.) In what are called the narrow passes on the river, would it be practicable to vary the location of the Canal, by carrying it further into the mountain, or further towards the river?

*Answer to the foregoing Interrogatory.* Not without vastly increasing the expense. If you go into the rock, you encounter very great excavation of rock; if you go into the river, the constructions would have to be very strong and high to resist freshets, and would also have to be built in water, which are attended with increased expense, and of doubtful stability. The height of the freshets are noted on the map. I was shown a mark at Williamsport, at which the water had risen 28 feet above the stage of low water. The high water mark, as shown to us, is designated on the profiles throughout the survey. Many of the narrow valleys were not occupied by the survey, being liable to inundation from the freshets, and we were compelled to go upon the edge of the hills.

*4th Interrogatory.* (To this interrogatory the complainants, by their counsel, objected.) Is there any considerable distance between Cumberland and Harper's Ferry in which a Canal must, from the nature of the ground, be carried into the river?

*Answer to the foregoing Interrogatory.* There are many such places, where one side of the Canal would have to be sustained by a wall from the bottom of the river.

*Cross Interrogatories, put to J. J. Abert, by the complainants, by their counsel.*

*1st Cross Interrogatory.* Are not some of the rocky passes of the Potomac accompanied by a depression in the ridge towards the interior, which might be practicable to a Rail-road, but presenting a Canal impracticability? Did you not survey some such for the Canal, and are they not located and represented on the map?

*Answer to the foregoing interrogatory.* I made the survey with reference to a Canal only, not having a Rail-road on my mind. There are four places located on the map or profiles in which we made experiments to see if the rocky passes or bends, on the river, at these places, could be avoided. This was the object, but the ground rose so high we were obliged to continue on the river. There are two places, near Alum Hill, at which these surveys in the interior were joined to the main lines of survey on the river at both ends, and completed. In the other two cases, finding the path evidently impracticable for a Canal, were not carried through at both ends to the main line of the Canal. One of these was in Virginia, near Mr. Colston's farm. I think a Rail-road practicable near Alum Hill, where these experimental lines went into the interior and joined both ends of the main line. The other two experimental lines being incomplete, I cannot answer positively on those lines.

*2d Cross Interrogatory.* In order to estimate the advantages or difficulties at the difficult passes on the Potomac river, where the two come in collision, occasioned by the independent or joint locations and construction of a Canal and Rail-road at these passes, would it not be necessary that the exact independent location of both, and line of joint location should be ascertained, and investigations and calculations made accordingly?