returning with empty cars in twelve minutes, he would accomplish sixteen trips per day, or the transportation of one hundred tons. An allowance of $1.50 cents for a man and horse, and 50 cents for wear and tear of cars and harness, would make $2.00 for one hundred tons removed, or 2 cents per ton, per mile.

Applying this,

244.749 tons, transported 847.42 miles, at 2 cents per ton, per mile, will be	$ 3.948 13
Excavation of 150 732¾ yards, at 9 cents, will cost	13.565 94¾
Excavation of 248 980 yards, at 8 cents, will cost	19.918 40
Excavation of 4 miles rail-road	5.000 00
Removing rails 4 times, at $100 per mile	1.600 00
Removed by rail-road to spoil banks of of 248 880 cubic yards, mean distance 20 yards	35 50
The whole cost of excavation will then be	$43.467 97¾

Now the transportation of 248 980 cubic yards appears to cost (exclusive of the rail road) $3.948.13, or 1⅝ cents per yard, nearly. If then, instead of so complex a calculation for each of the cuts, we should rate the excavation throughout at 10 cents, we should be sufficiently near the truth for the purposes of this Report:

The Estimate will then stand thus:

Excavation of 399 712 yards, at 10 cents per yard	$39.971 20
Removal of rail-tracks 4 times	1.600 00
Rail-road, 4 miles,	5.000 00
Cleaning of Lewes Creek	3 000 00
Do. Warren's Creek	5.500 00
Lock, 8 feet	15 000 00
Lock-house	500 00
	$70.571 20

It is proper to add, that, in all probability, considerable reduction will be experienced in the items of cleaning Lewes and Warren's Creeks.