Caroline Lamb

Car Wash Simulation Results Analysis

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| **4-Minute Bay** | **3-Minute Bay** |

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| --- | --- | --- | --- | --- |
| **Day** | **Avg Wait** | **# Cars With Wait >**  **10 Minutes** | **Avg Wait** | **# Cars With Wait >**  **10 Minutes** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sun.** | 12 min. | 46 cars | 1 min. | 2 cars |
| **Mon.** | 13 min. | 78 cars | 1 min. | 0 cars |
| **Tues.** | 20 min. | 94 cars | 4 min. | 14 cars |
| **Wed.** | 13 min. | 81 cars | 2 min. | 0 cars |
| **Thurs.** | 12 min. | 82 cars | 1 min. | 0 cars |
| **Fri.** | 19 min. | 113 cars | 3 min. | 5 cars |
| **Sat.** | 25 min. | 101 cars | 2 min. | 2 cars |

The above results of the Car Wash Simulation show that in a bay with a 3-minute wash time, the average wait per car and the number of cars with a wait time greater than ten minutes, were significantly less than in a bay with a wait time of 4 minutes, meaning that the bay with the wash time of 3 minutes was significantly more efficient than the bay with a 4-minute wash time. The simulation was run seven times, simulating a week, with one day’s worth of business being simulated for each day. Based on this data, it can be concluded that the Squeaky Clean Car Wash would benefit from replacing their current equipment with new equipment that runs a 3-minute wash.