

# Experiment 7: Data Sheet

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Name(s) Hazel Fabos

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Experiment Description Road Load and Rolling Resistance

Experiment Location HWY M35 (north of Eagle Harbor)

Road Surface Composition and Condition asphalt - good

## Ambient Conditions

wind speed (km/hr)	0 (no wind)
wind direction(deg)	
barometric pressure (kPa)	101 kPa
air temperature (C)	20 C
road surface temperature (C)	20 C
air density (kg/m <sup>3</sup> )	

## Vehicle Description

Make	Saturn
Model	Vue
Year	2009
Odometer	47587
Empty Weight (kN)	

### Tires

Manufacturer	<i>Goodyear</i>
Description	<i>FR710</i>
Size	<i>225/65R17</i>
Tread Depth	<i>1/8"</i>

### Tire Pressure

	recommended (kPa)	actual (kPa)
LF	<i>230-250</i>	<i>248</i>
RF	<i>230-250</i>	<i>246</i>
LR	<i>230-250</i>	<i>250</i>
RR	<i>230-250</i>	<i>251</i>

### Vehicle Frontal Area (m<sup>2</sup>)

height (m)	<i>1.69 m</i>
width (m)	<i>1.82 m</i>
0.8h X w (m <sup>2</sup> )	<i>2.46 m<sup>2</sup></i>

### Inertial Mass

front wheels (kg)	
rear wheels (kg)	
drive train (kg)	
total (kg)	
$m_{rc}$ approximated = 0.03W	

Data (total time in seconds)

V(mph)	1	2*	3	4*	5	6*
70	0	0				
60	12	13				
50	24	25				
40	39	41				
30	60	64				
20	92	95				

\*opposite direction (returning