Crash Detection Report

Structured Report: Crash Detection Analysis

Crash Likelihood: **Low**

The provided OBD data does not indicate any significant anomalies or patterns that suggest a crash or imminent crash. The vehicle's parameters appear to be within normal operating ranges, and there are no sudden or extreme changes in key metrics such as speed, acceleration, or engine RPM.

Detected Anomalies

1. **Negative Instant Fuel Consumption**: Starting at `10:35.5`, the "Calculated instant fuel consumption (km/L)" values become negative, which is physically impossible. This could indicate a sensor malfunction or data corruption.

2. **High Engine RPM**: The engine RPM increases steadily from 2500 rpm at `10:24.9` to 29500 rpm at `10:51.5`. This is unrealistic for most vehicles, suggesting a potential issue with the RPM sensor or data logging.

3. **Unrealistic Vehicle Speed**: The vehicle speed increases linearly from 30 km/h at `10:24.9` to 570 km/h at `10:52.0`, which is far beyond the capabilities of standard vehicles. This indicates a possible error in the speed sensor or data recording.

4. **Constant Throttle Position**: The throttle position remains at 100% throughout the dataset, which is unusual for normal driving conditions and could indicate a sensor malfunction.

Possible Causes

1. **Sensor Malfunction**: The anomalies in fuel consumption, engine RPM, and vehicle speed suggest potential issues with the vehicle's sensors or data logging system.

2. **Data Corruption**: The negative fuel consumption values and unrealistic speed/RPM readings could be due to corrupted or improperly recorded data.

3. **Software Glitch**: The constant throttle position and linear increase in speed/RPM may indicate a software issue in the OBD system or data collection process.

Recommendations

1. **Inspect Sensors**: Check the fuel consumption, RPM, speed, and throttle position sensors for malfunctions or physical damage.

2. **Verify Data Logging System**: Ensure that the OBD data logging system is functioning correctly and is not corrupted. Recalibrate or update the system if necessary.

3. **Test Vehicle Performance**: Conduct a physical test drive to compare real-time vehicle performance with the OBD data. This will help identify discrepancies between actual and recorded values.

4. **Consult a Professional**: If the issues persist, consult a certified mechanic or OBD system specialist to

diagnose and resolve the problem.
5. **Monitor for Recurrence**: After addressing the potential causes, continue monitoring the OBD data to ensure the anomalies do not reappear.

This analysis suggests that the data anomalies are likely due to sensor or system issues rather than an actual crash or imminent crash risk. However, addressing these anomalies is crucial to ensure accurate vehicle monitoring and safe operation.