

CRODYM LLC

SAMPLE REPORT

COMMERCIAL VEHICLE FORENSICS

COMMERCIAL TRUCK & BUS HV EDR / ECM DATA SUMMARY REPORT

Client-ready interpretation of HV EDR, ECM, FLA, J1939 and J1587 data



All identifiers, dates, locations and numeric values in this report are synthetic or simulated to protect the privacy of the original data set.

Prepared for demonstration and marketing purposes only.

Dallas-Fort Worth, Texas | Nationwide Service | www.crodymi.com

SAMPLE CLIENT DELIVERABLE

Executive Summary

Important sample notice

This document is a demonstration of a client-facing summary. Every vehicle identifier, date, location, event value, diagnostic count and operational metric has been altered or created for illustrative use. It is not an analysis of an actual collision.

This report demonstrates how Crodymi LLC can convert a lengthy data set downloaded from a commercial vehicle into a concise, understandable and visually supported summary for vehicle owners, attorneys, insurers, fleet operators and investigators. The reviewed raw data format contains vehicle and engine identification, acquisition timing, trigger-based speed-change and last-stop records, diagnostic information, network data, proprietary configuration values, trip history and forensic archive verification.

Illustrative Findings

61.4 mph PRE-EVENT SPEED Approximately 6 seconds before trigger / impact	0.39 g AVG. DECELERATION Illustrative calculated average	0 ACTIVE DTCs At the time of extraction	SHA-256 ARCHIVE STATUS Illustrative integrity verification
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- The principal speed-change record depicts a sustained highway-speed approach followed by a rapid deceleration to a complete stop.
- Accelerator-pedal position decreased to zero before the service-brake status became active, which is consistent with a deliberate braking response.
- Engine speed and engine load decreased with vehicle speed; cruise control and the parking brake were not active during the illustrated sequence.
- No active diagnostic trouble codes were present at extraction. Pending and historical codes require contextual review but do not, by themselves, establish a mechanical cause.
- The data archive is presented as verified using file-level cryptographic hashes, supporting preservation and repeatable review.

Scope of This Summary

Included	Not established by ECM data alone
Vehicle/engine identification and acquisition record	Exact collision time or point of impact
Speed, engine RPM, accelerator and brake status trends	Cause of the event without supporting evidence
Event register, trip data and diagnostic status	Driver intent, perception or visibility conditions
Archive integrity and principal technical limitations	Complete reconstruction without scene/vehicle evidence

IDENTIFICATION AND PRESERVATION

Vehicle and Data Acquisition Overview

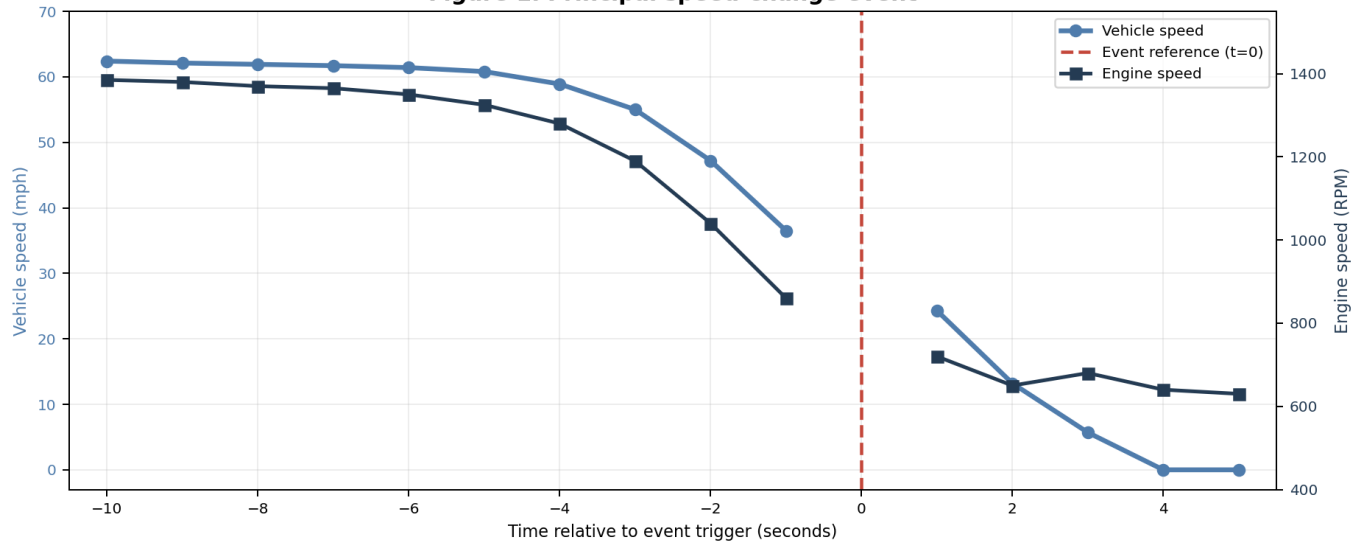
Item	Illustrative value
Vehicle	2021 International LT625 (illustrative)
VIN	SAMPLE-REDACTED-4827
Fleet unit	Unit 4827
Engine	Illustrative 12.4 L diesel engine
Engine serial	ENG-SAMPLE-20491
Engine hours	8,742.6 hours
Odometer	428,316.7 miles
Acquisition interface	FLA 9X7A-20518
Network protocols	SAE J1939 and SAE J1587
Download date/time	May 20, 2026 at 10:14:08 CDT
Download duration	00:12:46
GPS location	Midwest United States - exact location redacted
Archive status	All listed files verified by SHA-256 comparison

Event Register

Record	Classification	Illustrative range	Summary relevance
Speed Change 1	Principal event	Approx. 61 mph to 0 mph	Primary record selected for detailed review
Speed Change 2	Low-speed event	Approx. 7 mph to 0 mph	Historical maneuver; limited relevance
Last Stop 1	Prior stop	Approx. 34 mph to 0 mph	Comparison record
Last Stop 2	Recent stop	Approx. 19 mph to 0 mph	Secondary comparison record
		Interpretation note Event records are threshold-triggered snapshots rather than continuous telematics. A recorded speed change or last stop is not automatically a collision. The record must be correlated with the reported loss date, vehicle damage, scene evidence, photographs, telematics and witness information.	

EVENT DATA INTERPRETATION

Principal Event - Vehicle and Engine Response

Figure 1. Principal speed-change event**Chart summary**

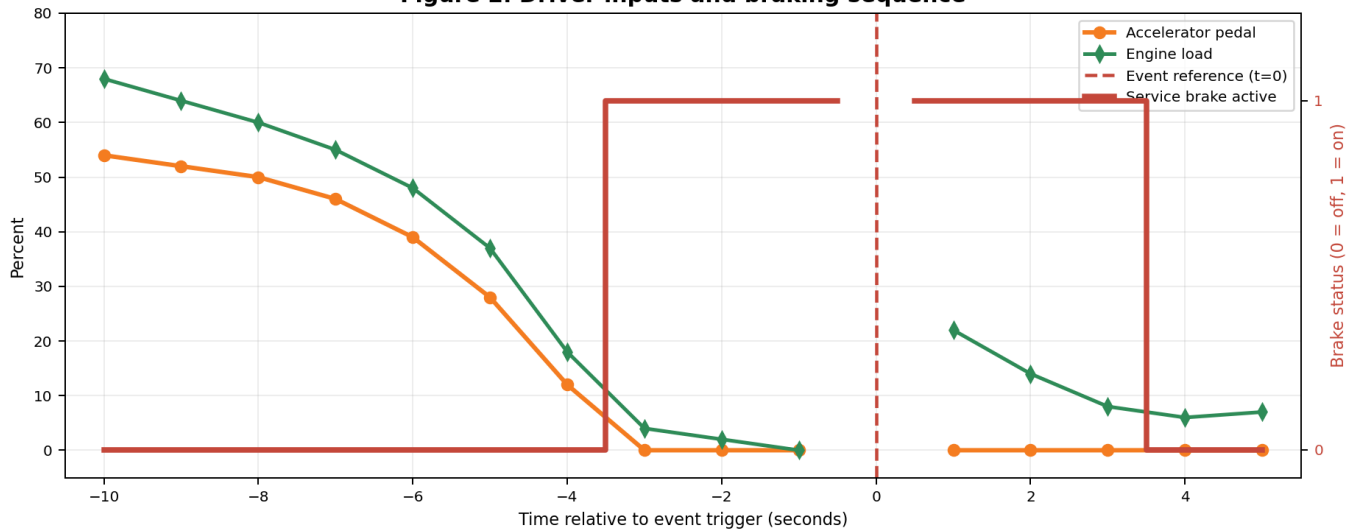
The vehicle remained near highway speed before a sharp and sustained reduction in speed. Engine RPM declined in the same interval. The dashed red line marks the event reference; no data point is plotted at t=0 because some Navistar-style event records do not report vehicle or engine speed at the trigger instant. This pattern is consistent with a rapid deceleration and stop, but the chart does not independently establish an impact time.

Selected Event Values

Time	Vehicle speed	Engine speed	Accelerator	Service brake
-10 s	62.4 mph	1,385 RPM	54%	Off
-6 s	61.4 mph	1,350 RPM	39%	Off
-4 s	58.9 mph	1,280 RPM	12%	Off
-3 s	55.0 mph	1,190 RPM	0%	On
-2 s	47.2 mph	1,040 RPM	0%	On
-1 s	36.5 mph	860 RPM	0%	On
t=0	Not reported	Not reported	Not reported	Not reported
+1 s	24.3 mph	720 RPM	0%	On
+2 s	13.2 mph	650 RPM	0%	On
+3 s	5.7 mph	680 RPM	0%	On
+4 s	0.0 mph	640 RPM	0%	Off

OPERATOR-RESPONSE INDICATORS

Driver Inputs and Braking Sequence

Figure 2. Driver inputs and braking sequence**Chart summary**

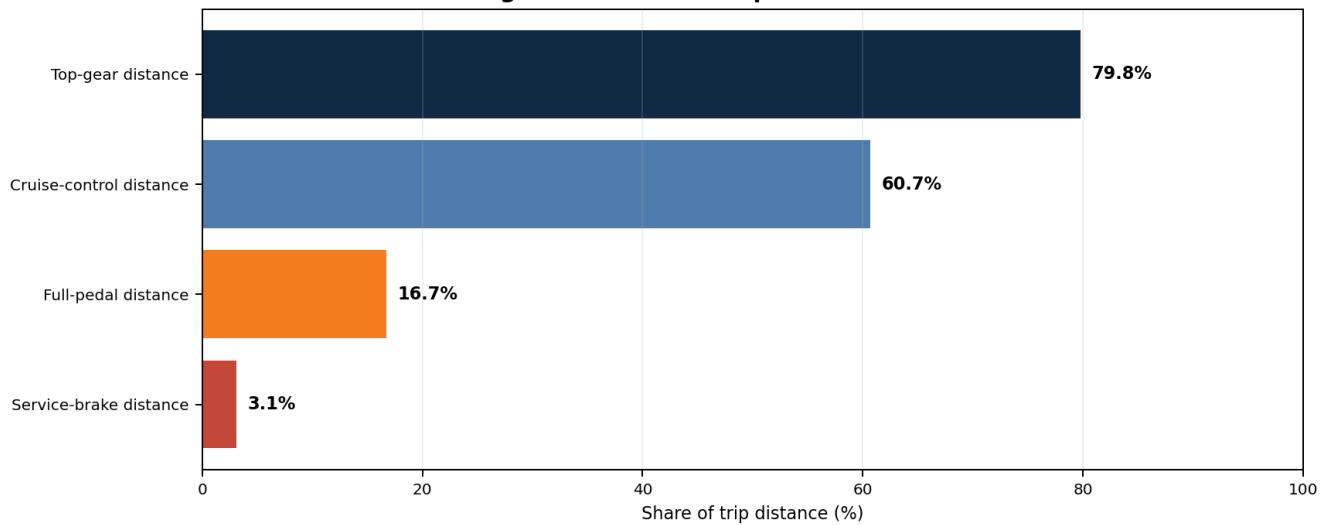
Accelerator position and engine load decrease before the service brake becomes active. The brake remains active while the vehicle speed falls through the principal deceleration interval. This sequence may assist in evaluating whether the driver released the accelerator and initiated braking before the event reference. It should not be interpreted as a complete human-factors analysis without roadway, visibility and perception-response evidence.

Illustrative Calculations

Measure	Illustrative result
Speed reduction reviewed	55.0 mph to 0.0 mph
Elapsed interval	Approximately 7 seconds
Average deceleration	Approximately 12.6 ft/s ² (0.39 g)
Approximate distance during interval	Approximately 295 feet
Brake status	Active throughout most of the deceleration
Cruise-control status	Inactive
Why this matters	
A technical event table can be difficult for a client or decision-maker to interpret. Plotting speed, engine response and driver inputs on a common time scale makes the sequence easier to evaluate and easier to present during a claim, mediation, deposition or court proceeding.	

CONTEXT BEYOND THE EVENT RECORD

Operational History and Trip Indicators

Figure 3. Selected trip-distance indicators**Chart summary**

The illustrative trip data show that most accumulated distance occurred in top gear and that a substantial portion was driven with cruise control. Full-pedal and service-brake distance are overlapping operational categories, not portions of one total. These metrics provide fleet-use context but do not identify the driver or prove conditions at the subject event.

Selected Trip Metrics

Metric	Illustrative value
Distance since trip reset	62,480 miles
Drive time	1,510 hours
Idle time	486 hours
Average fuel economy	6.4 mpg
Maximum recorded vehicle speed	76.2 mph
Service-brake activations	34,820
Firm-brake events	18
Hard-brake monitor count	3
Overspeed threshold 1 distance	42.5 miles
Overspeed threshold 2 distance	1.9 miles

MECHANICAL AND OPERATIONAL SCREENING

Diagnostics and Cumulative Speed Exposure

Figure 4. Diagnostic trouble-code status at extraction

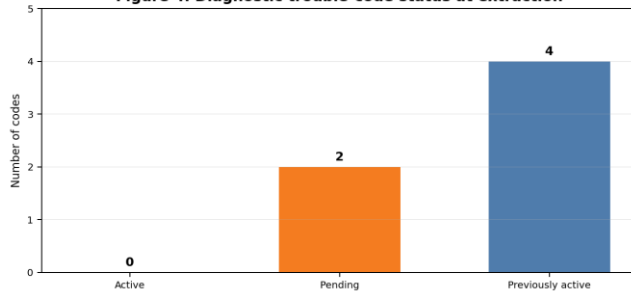
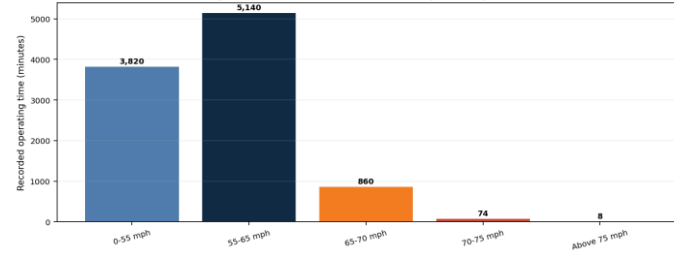


Figure 5. Illustrative cumulative speed exposure

**Diagnostic chart summary**

No active diagnostic trouble codes are illustrated at extraction. Two pending and four previously active codes are shown for demonstration. A code count alone cannot establish whether a fault existed during the event or whether it affected braking, steering, propulsion or sensor accuracy. Individual SPN/FMI records and occurrence counts must be reviewed.

Speed-exposure chart summary

The cumulative speed distribution shows that only a small portion of recorded operating time occurred above 70 mph. These are historical trip totals and should not be substituted for the event-specific speed record.

Illustrative Diagnostic Screening

Status	Illustrative description	Interpretive note
Active	None reported	No warning lamps illuminated at extraction
Pending	Aftertreatment pressure signal	Review occurrence count and timestamps
Pending	Fuel-rail pressure signal	No event linkage established in sample
Historical	Intake-temperature circuit	Previously active only
Historical	Engine-oil pressure warning	Review maintenance and occurrence history

FORENSIC QUALITY AND RESPONSIBLE INTERPRETATION

Data Integrity, Limitations and Conclusions

Data Integrity and Preservation

- The acquisition record documents permission time, download completion time, system-clock information and GPS-lock information.
- The forensic archive contains event, fault, network, metadata and standards files. In the illustrative workflow, each file is associated with a SHA-256 hash and verified after upload.
- Network logs and raw data should be retained with the rendered report so another qualified examiner can review the same source material.
- A client-facing summary should never replace the original archive, raw data or complete technical output.

Principal Limitations

Issue	Effect on interpretation
Manufacturer encoding	The report is based on SAE J1939/J1587 conventions, but manufacturers may encode some parameters differently.
Event trigger	A speed-change or last-stop record is not necessarily a crash record.
Missing t=0 value	Some Navistar event formats omit vehicle and engine values at the trigger instant.
Clock validity	ECM timestamps may be invalid or offset and should be compared with GPS, telematics and other records.
Fault-lamp timing	Lamp status may reflect the condition at extraction rather than the historical moment when a fault was active.
Corroboration	Conclusions should be integrated with vehicle damage, scene evidence, photographs, video, statements and other electronic data.

Illustrative Conclusion

	Summary opinion The fictionalized principal record demonstrates a rapid deceleration from highway speed to a complete stop, preceded by accelerator release and followed by sustained service-brake application. The data are useful for establishing vehicle-state sequence and narrowing the questions that require further investigation. They do not independently prove the exact moment of impact, collision causation or driver negligence.
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How Crodymi LLC Can Assist

Service	Client benefit
Forensic extraction	Preservation and retrieval of commercial-vehicle ECM/EDR, diagnostic and event data.
Technical analysis	Clear interpretation of speed, engine, brake, accelerator, fault and trip parameters.
Client-ready reporting	Concise summaries, charts and exhibits for claims, mediation, litigation and internal review.
Evidence integration	Correlation with photographs, scene measurements, vehicle inspections, telematics and video.
Expert support	Consultation, deposition assistance and testimony when appropriate.

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Pictures

