

REPORT NUMBER: MCW-DOT-SOI004

**VEHICLE INTO POLE CRASH TEST
IN SUPPORT OF NHTSA FRONTAL SMALL OVERLAP PROGRAM**

**2010 TOYOTA YARIS 4-DOOR SEDAN CRABBED INTO POLE
AIM FOR THE HEAD PROCEDURE**

**TEST DATE: OCTOBER 19, 2010
NHTSA NUMBER: RA5133**

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Test Vehicle: 2010 Toyota Yaris 4-Door Sedan
Test Program: Frontal Small Overlap

NHTSA Number: RA5133
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Prepared by:_____

Date:

Reviewed by:_____

Date:

Approval date:_____

Date:

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Technical Report Documentation Page

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16. Abstract A 56.1 km/h Moving Test Platform with a crabbed 2010 Toyota Yaris 4-door sedan was impacted into a rigid segmented pole. This test was conducted on the subject to obtain research data indicant of NHTSA's Frontal Small Overlap Program. The test was conducted at the Medical College of Wisconsin (MCW) in Milwaukee, Wisconsin on October 19, 2010. The impact velocity of the test platform was 56.1 km/h, and the ambient temperature at the struck side of the vehicle was 20 °C. The test vehicle's occupant performance is as follows: <table border="1" data-bbox="162 1176 1299 1533"> <thead> <tr> <th></th> <th><u>Units</u></th> <th><u>DRIVER</u></th> <th><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>15 millisecond Head Injury Criteria (HIC15)</td> <td></td> <td>252.3</td> <td>1547.7</td> </tr> <tr> <td>Chest maximum resultant acceleration</td> <td>G's</td> <td>40.3</td> <td>76.3</td> </tr> <tr> <td>Maximum chest deflection</td> <td>MM</td> <td>-39.2</td> <td>-40.9</td> </tr> <tr> <td>Left femur maximum axial compressive force</td> <td>NWT</td> <td>-3702.8</td> <td>-505.3</td> </tr> <tr> <td>Right femur maximum axial compressive force</td> <td>NWT</td> <td>-9321.7</td> <td>-353.3</td> </tr> </tbody> </table>							<u>Units</u>	<u>DRIVER</u>	<u>PASS.</u>	15 millisecond Head Injury Criteria (HIC15)		252.3	1547.7	Chest maximum resultant acceleration	G's	40.3	76.3	Maximum chest deflection	MM	-39.2	-40.9	Left femur maximum axial compressive force	NWT	-3702.8	-505.3	Right femur maximum axial compressive force	NWT	-9321.7	-353.3
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17. Key Words Frontal Small Overlap Program THOR 50 th percentile Dummy Hybrid III 5 th percentile Dummy			18. Distribution Statement Copies of this report are available from: U.S. Department of Transportation National Highway Traffic Safety Administration Technical Reference Division 1200 New Jersey Ave, SE, Room W43-410 Washington, D.C. 20590																										
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SECTION 1

PURPOSE

This 56.1 km/h moving test platform into a rigid segmented pole test is part of Frontal Offset Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-10-D-00159. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for consumer information purposes.

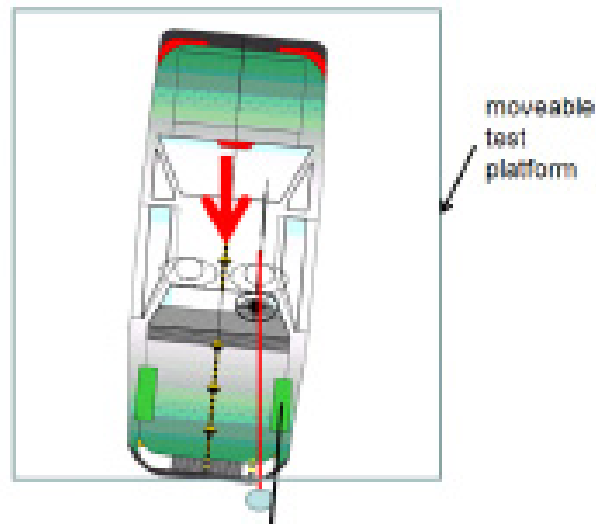
This test was conducted in accordance with the instructions set forth by NHTSA for a vehicle crabbed into a pole aimed at the head, outlined in Task Order (TO) DXXXXXX. Data was obtained indicant of Federal Motor Vehicle Safety Standard (FMVSS) 208 – Occupant Crash Protection, FMVSS 212 – Windshield Mounting, FMVSS 219 (partial) – Windshield Zone Intrusion, and FMVSS 301 – Fuel System Integrity, in addition to the requirements of TO DXXXXXX.

** No TO was given for the soi004. Interagency Agreement (IAA) no: 22-09-X-00193.*

SECTION 2 SUMMARY OF TEST

A model year 2010 Toyota Yaris 4-door sedan on a moveable test platform was towed into a segmented pole. The test vehicle remained stationary on the test platform until impact. The test vehicle was positioned at 7.0 degrees (cw) on the moveable platform and the center of the left tire was aligned with the left side of the pole.

The moveable test platform towed the stationary vehicle into the pole at 56.1 km/h (34.9 mph). The vehicle was crabbed at 7.0 degrees relative to the longitudinal center of the track. The offset of the vehicle was 10 percent of the outer width of the test vehicle.



The as tested vehicle mass was 1268.2 kg (2796 lbs). The test was conducted by The Medical College of Wisconsin on October 19, 2010.

The test was documented by 1 real time and 12 high-speed video cameras. Camera locations and other pertinent data are located in Data Sheet No. 6 of this report. Pre – and post – test photographs of the test vehicle, test platform, and setup were taken using a digital still camera. Photographic documentation of the test is presented in Appendix A of this report.

One (1) 50% adult male THOR LX anthropomorphic test device (ATD) (Serial No. 0006) was seated in the left front (driver's) seating position and one (1) Part 572O 5% adult female (HIII 5th) ATD (Serial No. 421) was seated in the left rear seating position. The THOR LX driver was positioned according to instructions specified in Laboratory Test Procedure for FMVSS No. 208, "Occupant Crash Protection", TP208 13, July 27, 2005. A modification needed to be made to not pre-load the ankles, and the driver ATD was seated one notch forward of full-rear. The HIII 5% left rear seat occupant was positioned according to instructions specified in Laboratory Test Procedure for FMVSS No. 214, "Side Impact Protection – Dynamic", TP214D-08, December 15, 2006. (Note: If a different seating procedure is used, include the exact procedure in an Appendix of the report). The driver was restrained with a 3 – point seat belt and a dual stage frontal airbag. The left rear passenger was restrained with a 3 – point seat belt.

197 channels of data from the two ATD's, test vehicle, and pole were collected using a Diversified Technical System (DTS) TDAS PRO data acquisition system. Appendix B contains ATD data plots, as well as vehicle and pole response data plots.

SECTION 2

SUMMARY OF TEST (CONTINUED)

There was 99.9% total windshield retention, with 98.1% and 101.6% retention on the driver's and passenger's side respectively. There was intrusion into the protected zone. The maximum crush of the underlying structure was 220 mm at DPD 1 to the left of the vehicle's centerline. The maximum crush of the underlying structure was 110 mm at DPD 1 of the lower bumper beam, to the left of the vehicle's centerline. Full vehicle measurements are presented in Section 3 of this report.

All four vehicle doors remained closed and latched during the test. The left front door was jammed shut as a result of the impact. The right front and rear doors remained closed, latched, and operational.

Structural observations include the following: No damage was noted to the pillar or the windows, no sill separation was noted, and there were no other notable effects.

The driver ATD's visible contact points are as follows: The front/right of the head contacted the steering wheel airbag, and the back bottom went to the seatback on rebound. The left side of the head additionally contacted the interior of the door at the window sill on rebound. The chest and upper abdomen contacted the steering wheel airbag. The left and right knees contacted their respective knee bolsters and the steering column. The left knee additionally contacted the interior door panel.

The left rear passenger ATD's visible contact points are as follows: The chin moved to the sternum, and on rebound, the back of the head contacted first the interior door panel at the arm-rest, and then against the seatback. The chest and abdomen, had no contact. The knees struck the rear of the driver's seat back. Additionally, the left knee contacted the interior door panel on rebound.

SECTION 2b
CRASH VEHICLE SUMMARY

PRIMARY IMPACT DATA		
Measured Parameter	Units	Value
Velocity at impact	km/h	56.1
Vehicle test weight	kg	1268.2
Vehicle angle	°	7
Vehicle maximum static crush	mm	220
Vertical offset from target point	mm	7 (above)
Lateral offset from target point	mm	0 (right/left)
Number of data channels	N/a	197
Number of real-time cameras	N/a	1
Number of high-speed cameras	N/a	12

DUMMY CONTACTS		
	Driver	Passenger
Dummy type/serial no.	0006	421
Restraint system	3-point belt/frontal airbag	3-point belt
Head contact	Front/right of head to steering wheel airbag; left side to interior door panel; back bottom to upper seatback on rebound	Chin to sternum; left side to interior door panel; back to seat back on rebound
Chest contact	To steering wheel airbag	No contact
Abdomen contact	Upper abdomen to steering wheel airbag	No contact
Left knee contact	To knee bolster, steering column, and interior door panel	To rear of driver's seat back; to interior door panel on rebound
Right knee contact	To knee bolster and steering column	To rear of driver's seat back

SECTION 2c
ATD SUMMARY

DRIVER				
Loc.	Nomenclature	Source	Max	Min
Head	Angular acceleration (rad/sec ²)	SIMon	3600	-2100
	Angular acceleration (rad/sec ²)	SIMon	2900	-2900
	Angular acceleration (rad/sec ²)	SIMon	5500	-3500
	Angular velocity (rad/sec)	SIMon	17	-34
	Angular velocity (rad/sec)	SIMon	19	-32
	Angular velocity (rad/sec)	SIMon	15	-25
	36 ms clip	Compute	436.2	
	15 ms clip	Compute	252.3	
	Skull fracture correlate	Compute	49.2	
	Cumulative strain (tolerance = 0.05)	SIMon	1.0	
	Cumulative strain (tolerance = 0.10)	SIMon	0.79	
	Cumulative strain (tolerance = 0.15)	SIMon	0.34	
	Head resultant CG acceleration (G's)	Compute	59.0	
Neck	UNLC Fx transferred to OC, neck system (N)	1000	181.7	-177.7
	UNLC Fz neck system tension (N)	1000	1318.0	
	UNLC Fz neck system compression (N)	1000		-251.9
	UNLC My transferred to OC, neck system flexion (Nm)	Compute	5.17	
	UNLC My transferred to OC, neck system extension (Nm)	Compute	-12.1	
	On head acting through total neck section Fx (N)	Thortest	4006.1	-974.3
	On head acting through total neck section Fy (N)	Thortest	719.7	-111.2
	On head acting through total neck section Fz (N)	Thortest	6136.1	-10735.4
	On head acting through tot. neck sect. Mx (Nm)	Thortest	223.6	-269.1
	On head acting through tot. neck sect. My (Nm)	Thortest	508.9	-368.8
	On head acting through tot. neck sect. Mz (Nm)	Thortest	334.8	-364.1
	On head acting through O.C. joint only Fx(N)	Thortest	260.6	-1003.4
	On head acting through O.C. joint only Fz (N)	Thortest	1003.1	-116.1
	On head acting through O.C. joint only My (Nm)	Thortest	6.22	-9.98
Chest	Upper CRUX x-deflection, right (mm)	Thortest	0.5	-30.4
	Upper CRUX y-deflection, right (mm)	Thortest	10.7	-6.91
	Upper CRUX z-deflection, right (mm)	Thortest	22.2	-6.87
	Upper CRUX "d" displacement, right (mm)	Thortest	2.8	-27.6
	Upper CRUX x-deflection, left (mm)	Thortest	3.64	-28.7
	Upper CRUX y-deflection, left (mm)	Thortest	5.95	-6.26
	Upper CRUX z-deflection, left (mm)	Thortest	9.80	-5.79
	Upper CRUX "d" displacement, left (mm)	Thortest	5.21	-27.8

SECTION 2c
ATD SUMMARY (CONTINUED)

Chest	Lower CRUX x-deflection, right (mm)	Thortest	0.26	-38.7
	Lower CRUX y-deflection, right (mm)	Thortest	3.1	-13.2
	Lower CRUX z-deflection, right (mm)	Thortest	21.2	-5.67
	Lower CRUX "d" displacement, right (mm)	Thortest	2.54	-39.2
	Lower CRUX x-deflection, left (mm)	Thortest	13.5	-1.79
	Lower CRUX y-deflection, left (mm)	Thortest	6.9	-0.79
	Lower CRUX z-deflection, left (mm)	Thortest	6.52	-13.0
	Lower CRUX "d" displacement, left (mm)	Thortest	17.2	-5.04
	Chest CG acceleration, 3 ms clip (G's)	Compute	40.3	
Abdomen	Max upper string pot (mm)	Compute	19.5	-30.3
	Upper viscous criteria	Compute	0.66	
	Lower right x-deflection (mm)	Thortest	37.3	-0.01
	Lower right y-deflection (mm)	Thortest	2.14	-0.13
	Lower right z-deflection (mm)	Thortest	1.03	-1.30
	Right viscous criterion based on x-deflection	Compute	0.39	
	Lower left x-deflection (mm)	Thortest	24.5	-0.01
	Lower left y-deflection (mm)	Thortest	0.00	-2.93
	Lower left z-deflection (mm)	Thortest	1.12	-2.1
Pelvis	Left viscous criterion based on x-deflection	Compute	0.17	
	Pelvis CG resultant acceleration (G's)	Compute	104.0	
Acetabulum	Right Fx force (N)	600	249.7*	-4079.5*
	Right Fy force (N)	600	1115.4	-1849.5
	Right Fz force (N)	600	2386.9	-111.4
	Resultant force (N)	Compute	**	
	Left Fx force (N)	600	141.8*	-1856.6*
	Left Fy force (N)	600	2561.5	-1736.7
	Left Fz force (N)	600	1649.0	-1460.2
	Resultant force (N)	Compute	**	
Femur	Right Fz force (N)	600	396.0	-9321.7
	Right Mx moment (Nm)	600	194.8	-179.1
	Right My moment (Nm)	600	127.1	-53.2
	Resultant force (N)	Compute	222.8	
	Left Fz force (N)	600	270.2	-3702.8
	Left Mx moment (Nm)	600	37.6	-91.5
	Left My moment (Nm)	600	102.2	-70.8
	Resultant force (N)	Compute	108.0	

*Value taken before channel damage

** Value unable to be calculated due to channel damage

SECTION 2c
ATD SUMMARY (CONTINUED)

PASSENGER				
Loc.	Nomenclature	Source	Max	Min
Head	Angular acceleration (rad/sec ²)	SIMon	4250	-2800
	Angular acceleration (rad/sec ²)	SIMon	28000	-2000
	Angular acceleration (rad/sec ²)	SIMon	4300	-2000
	Angular velocity (rad/sec)	SIMon	25	-18
	Angular velocity (rad/sec)	SIMon	1175	75
	Angular velocity (rad/sec)	SIMon	2	-68
	36 ms clip	Compute	2247.8	
	15 ms clip	Compute	1547.7	
	Skull fracture correlate	Compute	101.5	
	Cumulative strain (tolerance = 0.05)	SIMon	1.0	
	Cumulative strain (tolerance = 0.10)	SIMon	1.0	
	Cumulative strain (tolerance = 0.15)	SIMon	1.0	
	Head resultant CG acceleration (G's)	Compute	114.6	
Neck	Upper neck tension (N)	1000	3920.2	
	Upper neck compression (N)	1000		-789.7
	Upper neck NTF	Compute	1.12	
	Upper neck NTE	Compute	1.03	
	Upper neck NCF	Compute	0.15	
	Upper neck NCE	Compute	0.47	
Chest	Chest deflection (mm)	Thortest	0.03	-40.9
	Chest CG acceleration, 3 ms clip (G's)	Compute	76.3	
Femur	Right Fz force (N)	600	1199.4	-353.3
	Left Fz force (N)	600	1924.1	-505.3

SECTION 2d
TEST NOTES/ DATA ANOMOLIES

- Driver Upper Neck Load Cell (X) Moment failed at ~85 msec
- Driver Thoracic T12 (X) Moment failed at ~40 msec
- Driver Right Femur (Z) Moment was questionable
- Driver Right Acetabular (X) Force failed at ~90 msec
- Driver Left Acetabular (X) Force failed at ~125 msec
- Driver Anterior Spring (Z) Force failed at ~80 msec
- Driver Posterior Spring (Z) Force was questionable
- Driver Upper Abdomen (X) Displacement was questionable
- Driver Right Upper Tibia (Y) Moment was questionable
- Passenger Upper Neck (Y) Force was questionable
- Passenger Lower Neck (X) Moment failed at ~85 msec
- Passenger Lower Neck (Z) Moment was questionable
- Left Front Disc Brake Caliper (X) Acceleration failed at ~30 msec
- Driver Left Knee Center Contact Switch was questionable
- Driver Left Knee Right of Center Contact Switch provided meaningless data
- Passenger Left Knee Left of Center Contact Switch provided meaningless data

**DATA SHEET NO. 1
 GENERAL TEST AND VEHICLE PARAMETER DATA**

VEHICLE INFORMATION		VEHICLE OPTIONS	
NHTSA no.	None given	Anti-lock brakes	Yes
Make	Toyota	All-wheel drive	No
Model	Yaris	Power steering	Yes
Body style	4-door sedan	Driver front airbag	Yes
Year	2010	Driver side airbag	Yes
VIN	JTDBT4K30A4068999	Driver head airbag	No
Color	Pacific blue	Driver curtain airbag	Yes
Delivery date	September 29, 2010	Driver knee airbag	No
Odometer reading (mi)	44	Pass. front airbag	No
Odometer reading (km)	70.8	Pass. side airbag	No
Dealer	Heiser Toyota	Pass. head airbag	No
Transmission	Manual 5-spd	Pass. curtain airbag	Yes
Final drive	FWD	Pretensioners	Yes
Type/no. of cylinders	4	Load limiters	Yes
Engine disp. (L)	1.5	Bucket seats	Yes – front only
Engine placement	Longitudinal	Air conditioning	Yes
Roof rack	No	AM/FM CD	Yes
Sunroof/T-top	No	Tilt steering	Yes
Tinted glass	Yes	Automatic door locks	Yes
Traction control	Yes	Power windows	Yes
Power brakes	Yes	Power seats	No
Front disc	Yes	Other	
Rear disc	Yes	Other	

Does owner's manual provide instructions to turn off automatic door locks?

Yes

DATA FROM CERTIFICATION LABEL			
Manufactured by	Toyota Motor Corporation	GVWR (kg)	1496.9
		GAWR front (kg)	834.6
Date of manufacture	October 2009	GAWR rear (kg)	825.5

VEHICLE SEATING AND WEIGHT CAPACITY				
Measured Parameter	Front	Rear	Third	Total
Type of seats	Bucket	Split bench	N/a	
Number of occupants	2	3	N/a	5
Capacity Wt. (VCW) (kg)				383.3
Cargo Wt. (RCLW) (kg)				43.1

The diagram shows a cross-section of a tire with the following labels and specifications:

- Treadwear, traction and temperature grades:** TREADWEAR 220 TRACTION A TEMPERATURE A
- Tire ply composition and materials used:** 2 PLYS • 2XXXXX CORD • MAX LOAD 1300 LBS • MAX PRESS. 36PSI • RADIAL • TUBELESS • DOT MAA ABCDE • TREAD 4 PLYS • 2XXXXX • SIDEWALL 2 PLYS • 2XXXXX
- Max. cold inflation & load limit:** Max. cold inflation & load limit
- Manufacturer and Tire Name:** MANUFACTURER TIRE NAME
- U.S. DOT safety standard code:** U.S. DOT safety standard code
- Load index & speed symbol:** 89H
- Diameter of wheel in inches:** 215/65R15
- Radial:** Radial
- Ratio of height to width (aspect ratio):** 65
- Width of tire in millimeters:** 215
- Passenger car tire:** Passenger car tire

TIRE INFORMATION		
Measured Parameter	Front	Rear
Maximum tire pressure (kPa)	300	300
Cold / test pressure (kPa)	220	220
Recommended tire size	P185/60R15	P185/60R15
Tire size on vehicle	P185/60R15	P185/60R15
Tire manufacturer	Bridgestone	Bridgestone
Tire model	Potenza	Potenza
Treadware	160	160
Traction	A	A
Temperature grade	A	A
Tire plies sidewall	1	1
Tire plies body	4	4
Load index & speed symbol	84T	84T
Tire material	Steel, polyester, nylon	Steel, polyester, nylon
DOT safety code (right)	CKM3809	CKM3809
DOT safety code (right)	EL CD	EL CD

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA (CONTINUED)

TEST VEHICLE WEIGHTS							
	Units	As delivered (UVW) (Axle)			As tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	320.7	221.4		364.7	299.8	
Right	kg	324.8	210.0		305.7	298.0	
Ratio	%	59.9	40.1		52.9	47.1	
Totals	kg	645.5	431.4	1076.9	670.4	597.8	1268.2

TARGET TEST WEIGHT CALCULATION		
	Units	Value
Total delivered weight (UVW)	kg	1076.9
Weight of one (1) P572E ATD & one (1) P572O ATD	kg	154.2
Rated cargo/luggage weight (RCLW)	kg	43.1
Calculated vehicle target weight (TVTW)	kg	1274.2

TEST VEHICLE ATTITUDES AND CG						
	Units	LF	RF	LR	RR	CG (aft of front axle)
As delivered	mm	692	695	697	698	1155
As tested	mm	692	682	657	646	1389
Fully loaded	mm	685	675	656	646	

GENERAL TEST VEHICLE DATA		
Measurement description	Units	Value
Total vehicle wheel base	mm	2563
Total vehicle length at left side	mm	4030
Total vehicle length at centerline	mm	4308
Total vehicle length at right side	mm	4030
Weight of ballast in cargo area	kg	36.3
Weight of vehicle components removed	kg	11.8
Amt of Stoddard solvent in fuel tank	L	39.0

Mass of ballast added (kg): 36.3

Components removed from test vehicle

- Right rear tail-light; front driver's side window; rear passenger's side window

**DATA SHEET NO. 1
 GENERAL TEST AND VEHICLE PARAMETER DATA (CONTINUED)**

VEHICLE STRUCTURAL MEASUREMENTS		
	Elements	Pre-test
1	Total length	4908
2	Total width	1690
3	Bumper top height	547
4	Bumper bottom height	220
5	Longitudinal member top height	520
6	Longitudinal member bottom height	425
7	Distance between longitudinal members	855
8	Longitudinal member width	1010
9	Engine top height	835
10	Engine bottom height	190
11	Engine and gearbox width	810
12	Front bumper – engine distance	450
13	Bonnet leading edge height	834
14	Front shock absorber fixing width	1120
15	Front bumper – front axle distance	820
16	Front axle – A pillar distance	405
17	A pillar – B pillar distance	1105
18	B pillar – rear axle distance	1074
19	B – pillar – C – pillar distance	1064
20	Roof sill bottom height	1325
21	Roof sill top height	1437
22	Floor sill bottom height	225
23	Floor sill top height	340

DATA SHEET NO. 1A
ELECTRIC VEHICLE PARAMETER DATA

ELECTRIC VEHICLE PROPULSION SYSTEM

Type of electric vehicle (electric/hybrid): _____
Propulsion battery type: _____
Nominal voltage: _____ V
Physical location of automatic propulsion battery disconnect: _____
Auxiliary battery type: _____

PROPULSION BATTERY SYSTEM DATA (COTR SUPPLIED DATA)

Electrolyte fluid type: _____
Electrolyte fluid specific gravity: _____
Electrolyte fluid kinematic viscosity: _____ centistokes
Electrolyte fluid color: _____
Propulsion battery coolant type, color, specific gravity (if applicable): _____
Location of battery in module: _____
Inside passenger compartment: _____
Outside passenger compartment: _____

Measure and record battery state of charge (note: check which condition applies and specify the manufacturer's value):

Maximum state of charge recommended by manufacturer: _____
Test voltage (> 95% of maximum state of charge): _____
Test voltage (within normal operating voltage range): _____

VEHICLE CHASSIS GROUND POINT(S) LOCATION(S)

Details of vehicle chassis ground point(s) and location(s):

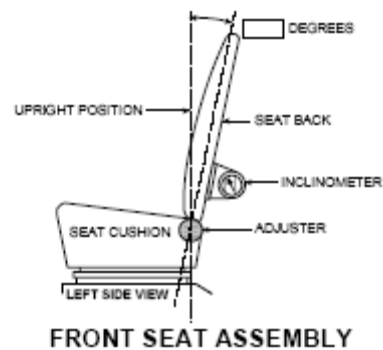
PROPULSION BATTERY SYSTEM

Details of propulsion battery components:

DATA SHEET NO. 2
SEAT ADJUSTMENT, FUEL SYSTEM, AND STEERING WHEEL

Seat back position

The driver and passenger seat back is positioned according to the manufacturers designated angle.



SEAT BACK POSITION	
Driver seat back angle:	6.8° (at head-rest post)
Passenger seat back angle:	Non-adjustable

Seat fore/aft positions

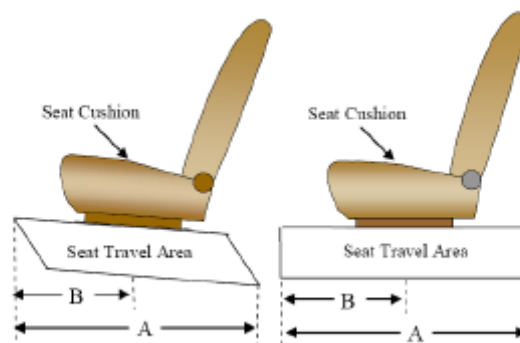
The total seat travel was measured from forward most position to rearmost position, irrespective of vertical seat height in those positions. The seat was set at the longitudinal mid position with vertical adjustment at the lowest position obtainable for both the driver and passenger.

SEAT FORE/AFT POSITION		
	Total fore/aft travel	Placed in position #
Driver seat	244 mm	Detent #1 (w/ full rear = 0)
Passenger Seat	Non-adjustable	N/a

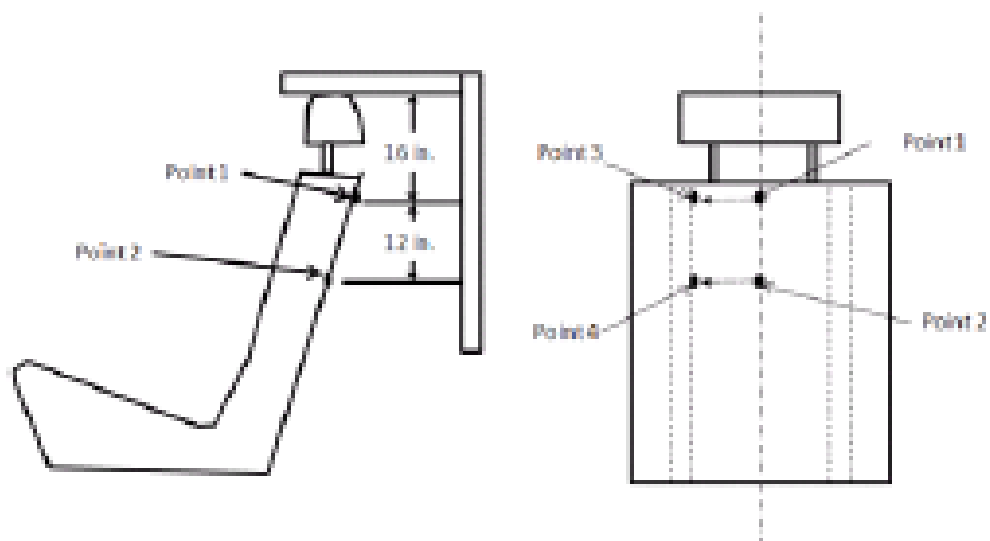
Seat belt position

The adjustable anchorage locations are positioned according to the manufacture's specifications.

SEAT BELT ADJUSTABLE ANCHORAGE (D-RING)		
	Total # of positions	Placed in position #
Driver seat	4	Highest position
Passenger seat	Non-adjustable	As positioned

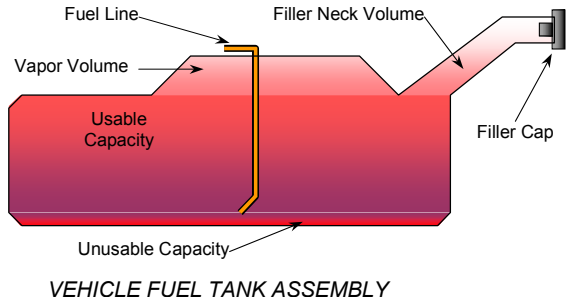


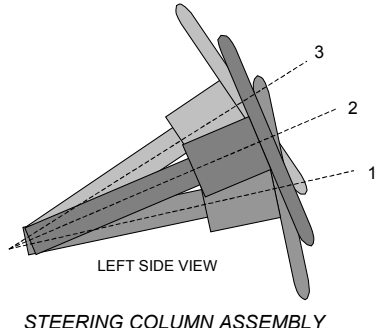
DATA SHEET NO. 2
SEAT ADJUSTMENT, FUEL SYSTEM, AND STEERING WHEEL (CONTINUED)



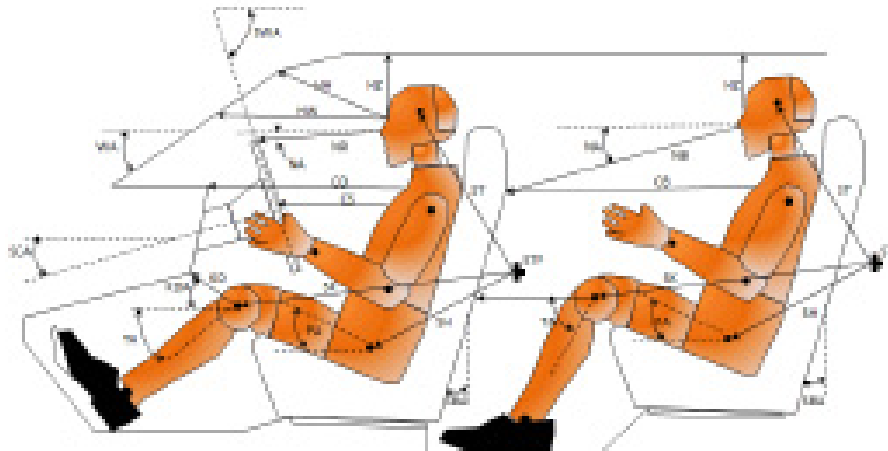
	X	Y	Z
Point 3	2011.6	-181.2	-336.5
Point 4	2048.3	-182.7	-227.2

DATA SHEET NO. 2
SEAT ADJUSTMENT, FUEL SYSTEM, AND STEERING WHEEL (CONTINUED)

FUEL TANK CAPACITY			
Description	Units	Value	
Usable capacity of standard equipment fuel tank	L	41.9	
Usable capacity of optional equipment fuel tank	L	0.0	
1/3 of usable capacity	L	14.0	
Amount of stoddard added for test	L	39.0	
% Usable capacity (92%-94%)	%	93.0	
Operational instructions	None		
Electric fuel pump present	Yes		
Operating condition of test vehicle for fuel pump operation	The fuel pump is activated when the ignition is turned on.		

STEERING COLUMN POSITIONS		
Lowermost position no. 1	26.0°	
Geometric center position no. 2	27.6°	
Uppermost position no. 3	29.0°	
Telescopic steering wheel travel	Non-telescoping	
Test position	N/a	
Steering wheel positioned 27.6° relative to side sill panel. The steering column did not have a telescope adjustment and it was therefore set as positioned.		

DATA SHEET NO. 3
DUMMY LONGITUDINAL CLEARANCE DIMENSIONS



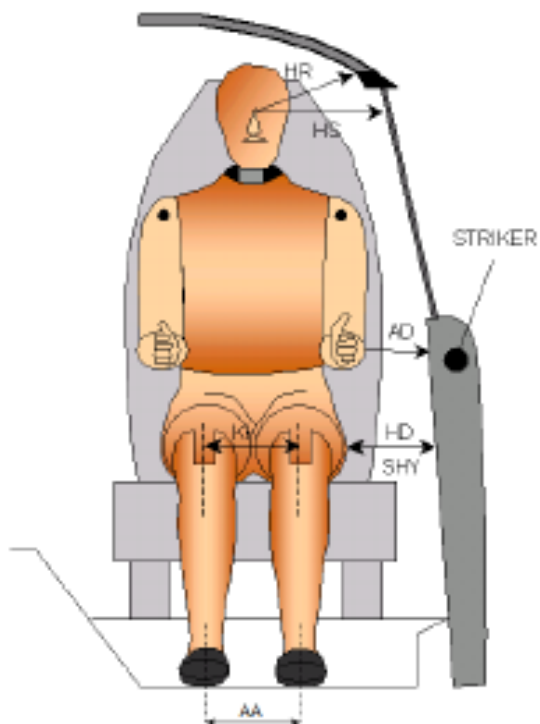
DUMMY LONGITUDINAL CLEARANCE MEASUREMENTS					
Code	Measurement description	Driver		LR passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA°	Windshield angle		25.0		
S WA°	Steering wheel angle		27.6		
SCA°	Steering column angle		23.6		
SA°	Seat back angle (hr post)		6.2		12.4
HZ	Head to roof (Z)	186	90.0	251	90.0
HH	Head to header	500	14.8		
HW	Head to windshield	906	0.00		
NR/NB	Nose to rim/seat back	615	-9.80	414	-16.2
CD/CB	Chest to dash/seat back	804	-4.10	388	17.4
CS	Chest to steering hub	514	-8.90		
RA	Rim to abdomen	589	31.7		
KDL/KDR	Left knee to dash/seat back	222	13.6	179	25.6
KDR/KBR	Right knee to dash/seat back	219	15.2	170	24.5
PA°	Pelvic angle		20.4		21.4
TA°	Tibia angle		41.3		70.4
SK	Striker to knee	556		706	
ST	Striker to head	634		556	
SH	Striker to H-point	265		205	
HAX°	Head angle X		0.40		
HAY°	Head angle Y		0.60		
NAX°	Neck angle X		-1.10		
NAY°	Neck angle Y		-4.90		
TAX°	T angle X		-31.5		
TAY°	T angle Y		43.2		
LAX°	Lumbar angle X		-3.60		
LAY°	Lumbar angle Y		35.3		

DATA SHEET NO. 3b
DUMMY CMM MEASUREMENTS

CMM MEASUREMENTS						
Description	Driver			LR passenger		
	X	Y	Z	X	Y	Z
Striker (driver/passenger)	2090.6	-718.4	-103.6	1141.7	-733.2	-224.5
Head CG	2013.7	-367.2	-626.6	1259.0	-399.0	-528.1
Bridge of nose	2113.3	-293.0	-613.4	1351.5	-327.8	-533.4
Tip of nose	2116.4	-295.2	-573.9	1373.2	-325.7	-500.0
Shoulder bolt	2022.2	-490.2	-378.5	1247.5	-472.5	-286.4
Tip of chin	2114.1	-301.0	-492.4	1358.0	-325.3	-427.4
H-point	2194.1	-496.8	-2.82	1397.0	-452.0	42.4
Left knee	2597.2	-496.5	-47.0	1743.5	-429.4	-14.5
Right knee*	2612.5	-237.7	-23.6	1749.4	-160.4	-3.50
Left ankle	2907.2	-511.8	238.7	1861.4	-421.3	306.3
Right ankle*	2934.8	-224.6	245.8	1844.3	-258.3	306.9
Driver's outboard seat anchor bolt	2570.4	-570.7	296.0			
Outboard head restraint post	1778.0	-392.6	-405.6	1013.3	-391.9	-501.6
Top of head restraint	1816.6	-296.6	-649.7	1069.5	-318.0	-548.9
Center of steering wheel	2625.5	-290.5	-266.6			

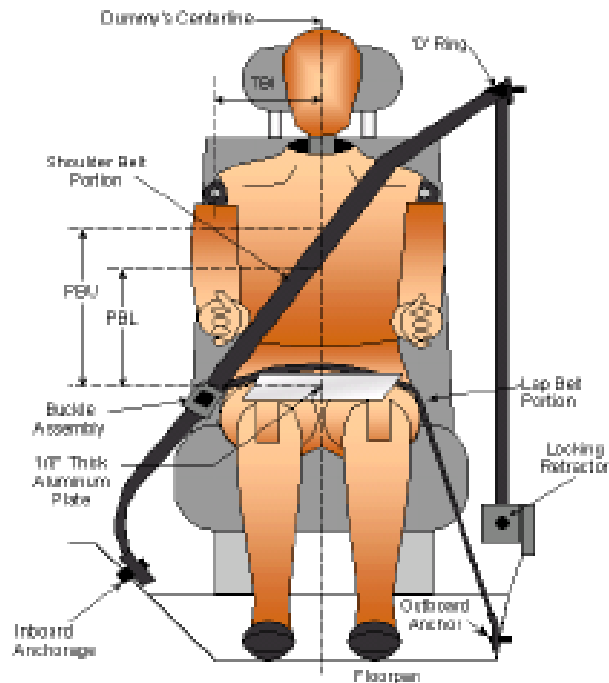
* Right knee and ankle taken on the inboard side for the driver ATD and right ankle for passenger

DATA SHEET NO. 4
DUMMY LATERAL CLEARANCE DIMENSIONS



DUMMY LATERAL CLEARANCE DIMENSIONS			
Code	Description	Driver	LR passenger
AD	Arm to door	97	87
HD	H-point to door	130	175
HR	Head to side header	202	159
HS	Head to side window	328	239
KK	Knee to knee	265	195
SHY	Striker to H-point (Y direction)	222	408
AA	Ankle to ankle	302	170

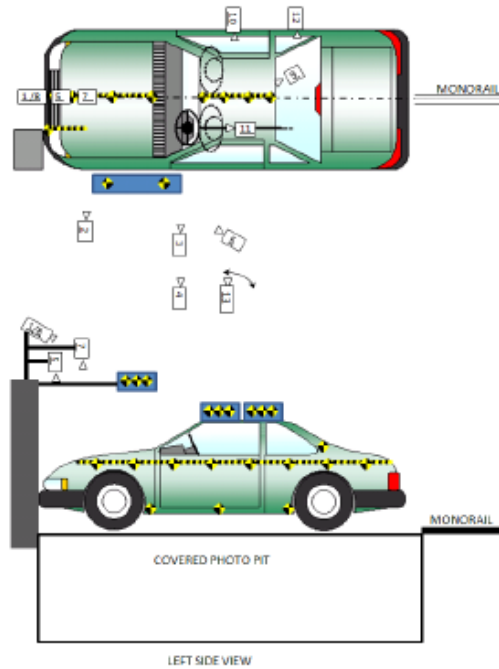
DATA SHEET NO. 5
SEAT BELT POSITIONING DATA



SEAT BELT POSITIONING DATA				
Code	Measurement description	Units	Left front seat	Left rear seat
PBU	Top surface of aluminum plate to belt upper edge	mm	282	270
PBL	Top surface of aluminum plate to belt lower edge	mm	212	193

BELT LENGTH DATA		
Measurement description	Driver	Passenger
Shoulder belt length as measured ATD	804	742
Lap belt length as measured on ATD	846	649
Remainder of belt on reel	1840	1688
Total belt length for continuous webbing systems	3490	3079

DATA SHEET NO. 6
HIGH-SPEED CAMERA LOCATIONS AND DATA



HIGH SPEED CAMERA LOCATIONS						
Cam. No.	View	Coordinates			Lens	Rate
		X	Y	Z		
		mm	mm	mm		fps
1	Front view of test vehicle	3215	2654	-3203	25	1000
2	Lateral view of test vehicle	-986	-10136	-845	35	1000
3	Left steering column view of test vehicle	-847	-10102	-698	50	1000
4	Overall left view of test vehicle	-894	-9992	-744	25	1000
5	Overhead close-up view of test vehicle	-1583	188	-6013	35	1000
6	Overhead oblique view of test vehicle	965	3778	-2707	25	1000
7	Overhead overall view of test vehicle	-391	497	-6021	12.5	1000
8	Windshield view of test vehicle	3102	1977	-3245	50	1000
9	Test vehicle onboard driver oblique view	-2608	794	-974	12.5	1000
10	Test vehicle onboard driver side view	-1849	1400	-421	12.5	1000
11	Test vehicle onboard foot view	-1764	-285	292	10	1000
12	Test vehicle onboard passenger side view	-2562	1409	-424	12.5	1000
13	Real-time film coverage of test	-	-	-	-	-

Origin

X

Y

Z

Impact Point

Impact Point

Impact Point

Orientation

X

Y

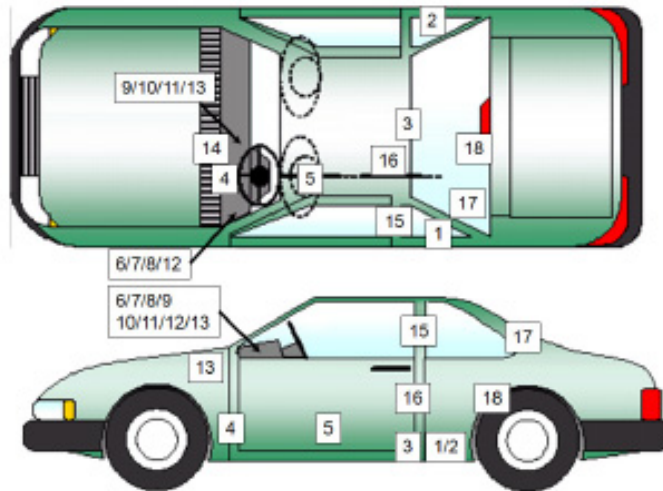
Z

+(X) Forward

+(Y) Right

+(Z) Down

DATA SHEET NO. 7
VEHICLE INSTRUMENTATION LOCATIONS



VEHICLE INSTRUMENTATION DATA						
Loc. no.	Accelerometer location		Positive direction		Negative direction	
			Max	Time (ms)	Max	Time (ms)
1	Left rear seat cross member (G's)	X	11.3	14.8	-41.6	78.4
		Y	16.9	67.4	-2.20	151.1
2	Right rear seat cross member (G's)	X	11.9	116.7	-40.9	90.1
		Y	20.1	83.4	-12.9	76.8
3	Vehicle CG (G's)	X	2.98	355.9	-32.5	74.9
		Y	16.1	57.8	-15.5	68.8
		Z	13.7	69.1	-14.7	95.6
4	Behind brake pedal (G's)	X	27.9	44.2	-136.4	60.3
		Y	87.1	58.6	-61.6	47.8
		Z	37.3	60.8	-25.9	57.0
5	Driver left knee center contact switch 1 (V)		-1802.6*	68.8	-2533.0*	68.4
6	Driver left knee left of center contact switch 2 (V)		-4993.8*	68.4	-5788.9*	-68.8
7	Driver left knee right of center contact switch 3(V)		3.18	70.7	-0.65	73.5
8	Passenger left knee center contact switch 1 (V)		-2746.1*	110.6	-5086.1*	206.3
9	Passenger left knee left of center contact switch 2 (V)		1.30**	520.4	-0.40**	67.4
10	Passenger left knee right of center contact switch 3(V)		-3595.8*	208.9	-4994.0*	206.4
11	Driver IP (G's)	X	13.8	104.3	-48.6	61.1

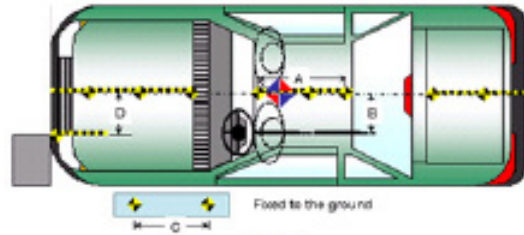
DATA SHEET NO. 7
VEHICLE INSTRUMENTATION LOCATIONS (CONTINUED)

VEHICLE INSTRUMENTATION DATA						
Loc. no.	Accelerometer location		Positive direction		Negative direction	
			Max	Time (ms)	Max	Time (ms)
12	Driver air bag squib (V)	1	0.62	119.8	-0.05	119.5
		2	0.57	46.6	-0.04	44.1
13	Driver shoulder belt (N)		4693.9	77.8	-28.2	42.1
14	Driver lap belt (N)		7885.1	81.0	-0.32	-31.4
15	Passenger shoulder belt (N)		7705.0	106.1	-10.2	300.9
16	Passenger lap belt (N)		8661.2	83.1	-4.39	34.8

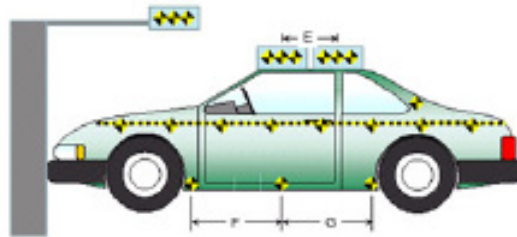
* Questionable data

** Meaningless data

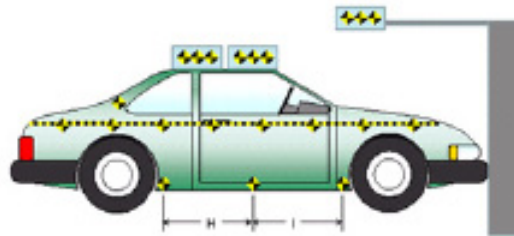
DATA SHEET NO. 8
VEHICLE PHOTOGRAPHIC REFERENCE TARGET LOCATIONS



Top View



Left Side View



Right Side View

VEHICLE PHOTOGRAPHIC REFERENCE TARGET LOCATIONS	
Item	Value
A	985
B	182
C	420
D	613
E	789
F	687
G	962
H	964
I	689

DATA SHEET NO. 9
TEST VEHICLE SUMMARY OF RESULTS

ACCELEROMETERS	
Driver dummy accelerometers	34
Passenger dummy accelerometers	21
Vehicle structural accelerometers	22
Total	77

CAMERA COVERAGE	
High speed vehicle onboard	4
High speed vehicle offboard	8
Real-time panning	1
Total	13

**DATA SHEET NO. 10
 POST TEST OBSERVATIONS**

TEST DUMMY INFORMATION AND CONTACT POINTS			
Description	Driver	Passenger	Picture ref.
Dummy type	THOR-LX	HIII 5% female	
Dummy serial no.	T1-0006	421	
Lower leg type	LX	HIII 5% legs	
Lower leg serial no.	LX109 (left), LX110 (right)	421	
Head contact	Front/right of head to steering wheel airbag; left side to interior door panel; back bottom to upper seatback on rebound	Chin to sternum; left side to interior door panel; back to seatback on rebound	A-48/A-62
Upper torso contact	To steering wheel airbag	No contact	A-51/ N/a
Lower torso contact	Upper abdomen to steering wheel airbag	No contact	A-51/ N/a
Left knee contact	To knee bolster, steering column, and interior door panel	To rear of driver's seat back; to interior door panel	A-46/A-63
Right knee contact	To knee bolster and steering column	No contact	A-46/A-63

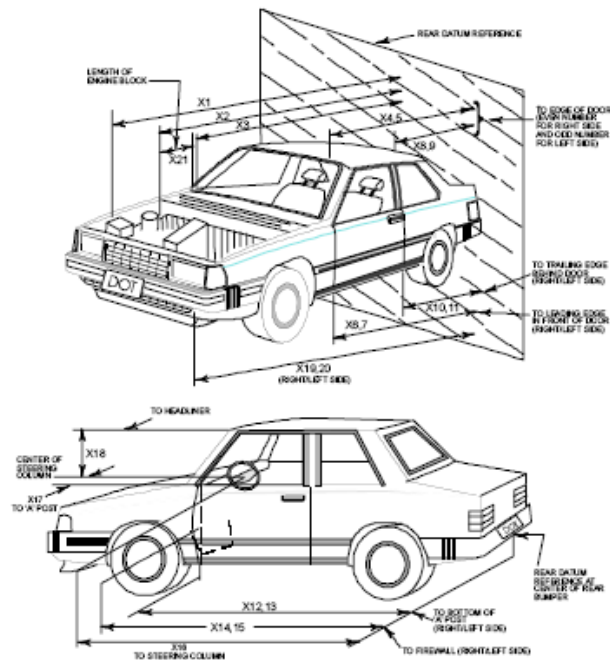
DOOR OPENING AND SEAT TRACK INFORMATION		
Description	Driver	Passenger
Locked/unlocked doors	Unlocked	Unlocked
Front door opening	Closed/locked/inoperable	Closed/locked/operable
Rear door opening	Closed/locked/operable	Closed/locked/operable
Seat track shift (mm)	Inboard track of driver's seat detached from detent and slid forward 119 mm	None
Seat back failure	None	None
Glazing damage	No intrusion	N/a

POST TEST STRUCTURAL OBSERVATIONS		
Critical areas of performance	Observations/conclusions	Picture ref.
Windshield damage	Heavy cracking at lower left corner extending along bottom of windshield and along windshield centerline	A-6
Window damage	Driver's side windows removed prior to impact	N/a
Other notable effects	None noted	N/a

DATA SHEET NO. 10
POST TEST OBSERVATIONS (CONTINUED)

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION				
Restraint type	Driver (occupant 1)		Passenger (occupant 2)	
	Installed	Operated	Installed	Operated
Front airbag	Yes – steering wheel	Deployed	No	N/a
Pelvis/torso airbag	Yes	N/a	No	N/a
Curtain (or other head) airbag	Yes	N/a	Yes	N/a
Knee airbag	No	N/a	No	N/a
Seat belt pretensioner	Yes	Deployed	Yes	N/a
Seat belt load limiter	Yes	N/a	Yes	N/a

DATA SHEET NO. 11
VEHICLE PROFILE MEASUREMENTS



VEHICLE DIMENSIONS				
Code	Description	Pre test	Post test	Change
		mm	mm	mm
1	Total length of vehicle at centerline	4308	4182	-126
2	Rear surface of vehicle to front of engine	3870	3775	-95
3	Rear surface of vehicle to firewall	3315	3281	-34
4	Rear surface of vehicle to upper leading edge of right door	3095	3389	294
5	Rear surface of vehicle to upper leading edge of left door	3095	3090	-5
6	Rear surface of vehicle to lower leading edge of right door	3040	3014	-26
7	Rear surface of vehicle to lower leading edge of left door	3040	3057	17
8	Rear surface of vehicle to upper trailing edge of right door	2000	2003	3
9	Rear surface of vehicle to upper trailing edge of left door	2000	2000	0
10	Rear surface of vehicle to lower trailing edge of right door	1985	1963	-22
11	Rear surface of vehicle to lower trailing edge of left door	1985	2003	18

DATA SHEET NO. 11
VEHICLE PROFILE MEASUREMENTS (CONTINUED)

VEHICLE DIMENSIONS				
Code	Description	Pre test	Post test	Change
		mm	mm	mm
12	Rear surface of vehicle to bottom of "A" post of right side	3100	3077	-23
13	Rear surface of vehicle to bottom of "A" post of left side	3100	3033	-67
14	Rear surface of vehicle to firewall, right side	3287	3298	11
15	Rear surface of vehicle to firewall, left side	3287	3185	-102
16	Rear surface of vehicle to steering column	2640	2628	-12
17	Center of steering column to "A" post	460	441	-19
18	Center of steering column to headliner	410	425	15
19	Rear surface of vehicle to right side of front bumper	4030	4066	36
20	Rear surface of vehicle to left side of front bumper	4030	3996	-34
21	Length of engine block	380	380	0
RD	Rear surface of vehicle to right side of dash panel	2933	2928	-5
CD	Rear surface of vehicle to center of dash panel	2823	2836	13
LD	Rear surface of vehicle to left side of dash panel	2933	2812	-121

DATA SHEET NO. 12
ACCIDENT INVESTIGATION DIVISION DATA

VEHICLE INFORMATION

VIN: 2010JTDBT4K30A4068999

Vehicle size category: 4-door sedan

Wheelbase (mm): 2884

Test weight (kg): 1268.2

ACCELEROMETER DATA

Accelerometer locations: as given in data sheet no. 7a

Cal. procedure/interval: one (1) year, or as needed

Integration algorithm: _____

Linearity: _____

Impact velocity (km/h): _____

Velocity change (km/h): _____

Time of separation (msec): _____

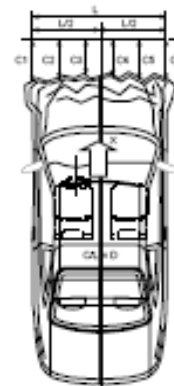
CRUSH PROFILE

Collision Deformation Classification: 11FLEE5

Midpoint of damage: 683

Damage region length: 1367

Impact mode: vehicle pulled into pole



CRUSH DEPTH DIMENSIONS					
	Measurement description	Units	Pre-test	Post-test	DIFFERENCE
C1	Crush zone 1 at left side	mm	466	686	220
C2	Crush zone 2 at left side	mm	370	584	214
C3	Crush zone 3 at left side	mm	343	456	113
C4	Crush zone 1 at right side	mm	343	467	124
C5	Crush zone 2 at right side	mm	369	446	77
C6	Crush zone 3 at right side	mm	466	526	60
L	C1 to C6	mm	1367	1123	-244

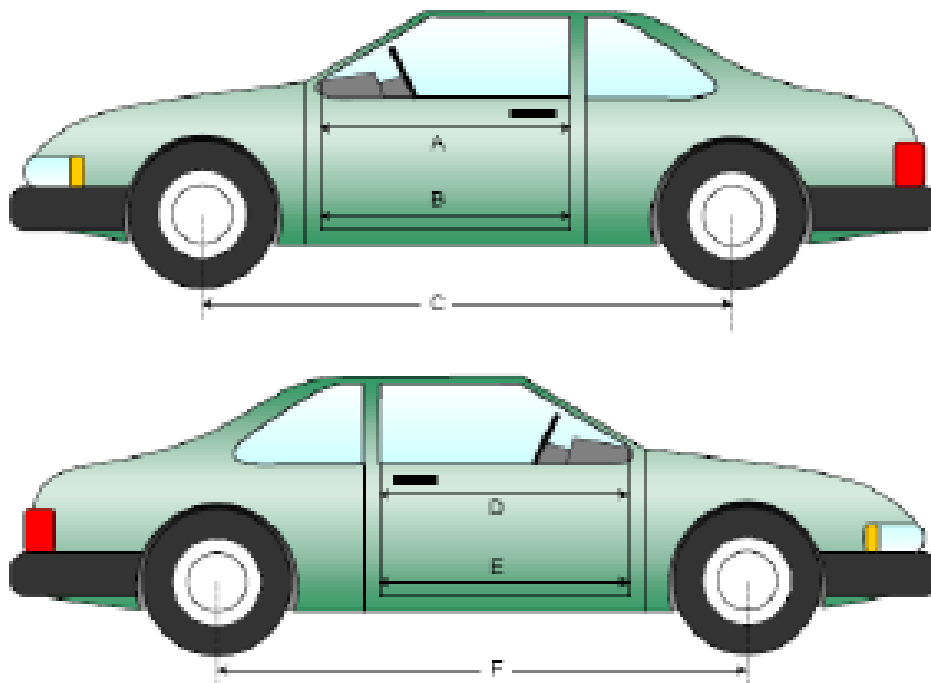
DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS

DOOR OPENING WIDTH					
Item	Description	Units	Pre-test	Post-test	Difference
A	Left side upper	mm	1098.8	*	*
B	Left side lower	mm	1096.6	*	*
D	Right side upper	mm	1112.2	1115.8	3.60
E	Right side lower	mm	1095.4	1097.1	1.70

WHEELBASE MEASUREMENTS					
Item	Description	Units	Pre-test	Post-test	Difference
C	Left side wheelbase	mm	2563.1	2310.7	-252.4
F	Right side wheelbase	mm	2551.6	**	**

* Points damaged during testing and were unable to be measured

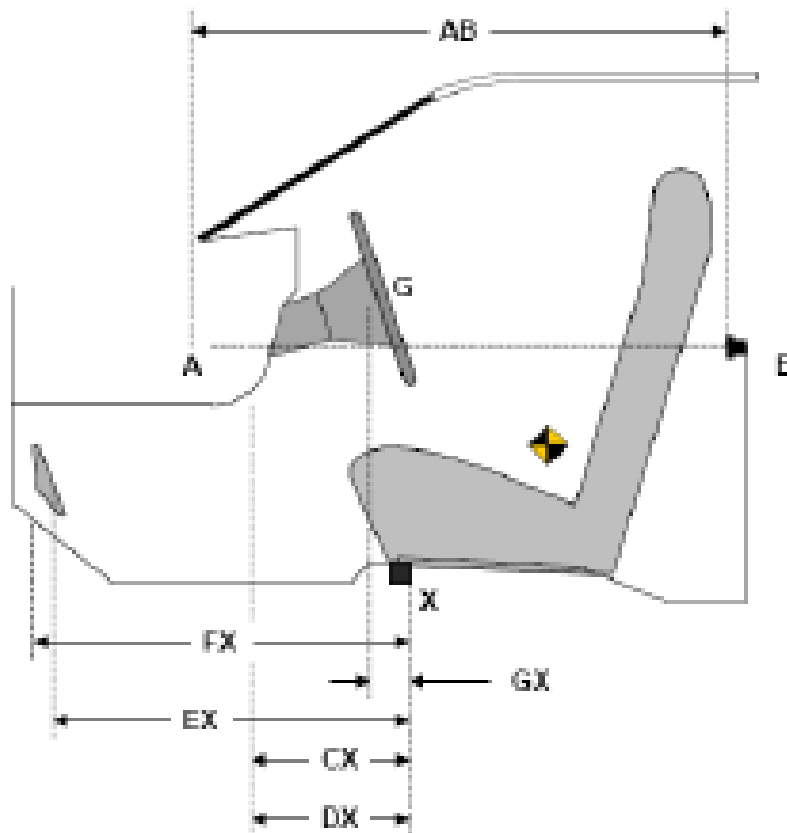
** Tire became damaged during testing



DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

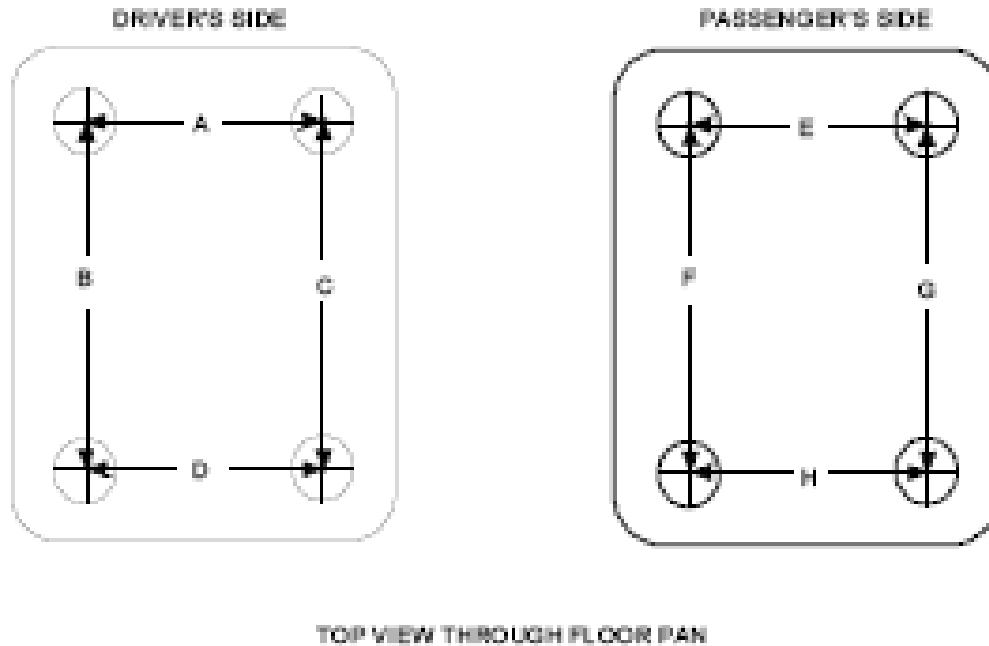
DRIVER COMPARTMENT INTRUSION					
Item	Description	Units	Pre-test	Post-test	Difference
AB	Door opening (inside window jam)	mm	962.1	950.6	-11.5
CX	Left knee bolster to X	mm	265.3	217.9	-47.4
DX	Right knee bolster to X	mm	264.3	244.7	-19.6
EX	Brake pedal to X	mm	490.4	417.0	-73.4
FX	Foot rest to X	mm	548.2	512.3	-35.9
GX	Center of steering column wheel hub to X	mm	55.1	56.3	1.20

X = Front of seat track (stationary)



DRIVER COMPARTMENT

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

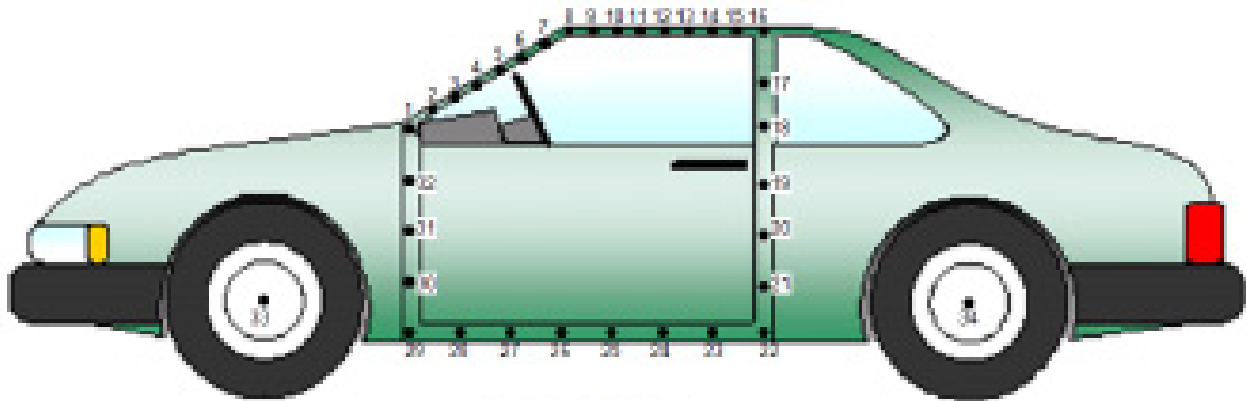


FLOORBOARD DEFORMATION			
Measurement	PRE-TEST	POST-TEST	DIFFERENCE
A	251.9	246.5	-5.40
B	167.2	162.4	-4.80
C	170.3	156.3	-14.0
D	255.1	247.6	-7.50
E	*	*	*
F	*	*	*
G	*	*	*
H	*	*	*

All measurements in millimeters

* Measurement not taken as there was no P2 dummy

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)



Left Side View

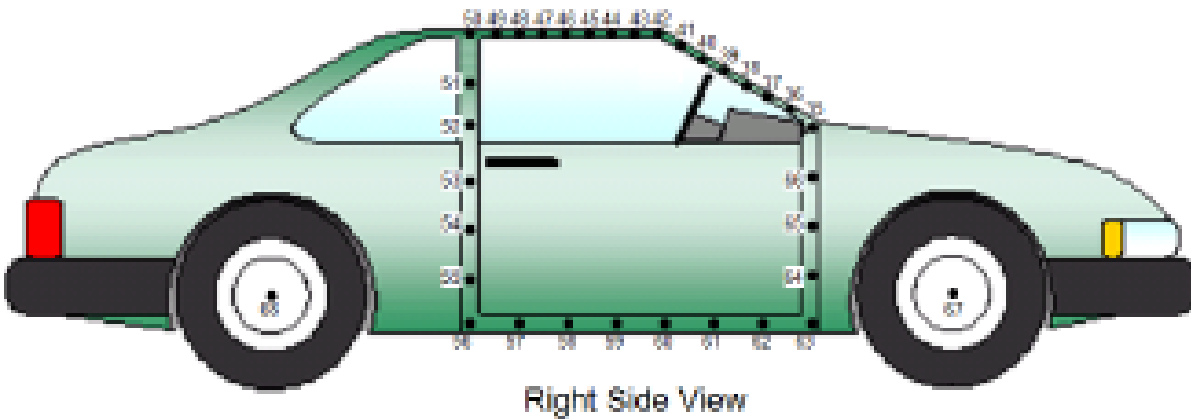
LEFT SIDE DOOR FRAME MEASUREMENTS									
Pt.	Pre-test (mm)			Post-test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3096.7	-699.7	-413.4	3072.6	-685.6	-440.9	-24.1	14.1	-27.5
2	3055.0	-665.6	-481.3	3035.2	-650.4	-511.8	-19.8	15.2	-27.5
3	2982.8	-648.4	-524.7	2968.2	-632.6	-564.5	-14.6	15.8	-39.8
4	2908.8	-632.0	-565.5	2899.5	-611.9	-613.2	-9.30	20.1	-47.7
5	2835.4	-614.4	-604.7	2831.2	-590.2	-658.9	-4.20	24.2	-54.2
6	2762.1	-597.5	-640.8	2762.0	-569.0	-700.2	-0.10	28.5	-59.4
7	2685.7	-581.9	-674.1	2685.4	-550.7	-725.7	-0.30	31.2	-51.6
8	2693.8	-566.2	-706.9	2590.1	-534.9	-746.3	-103.7	31.3	-39.4
9	2522.9	-556.3	-727.4	2517.3	-525.9	-757.4	-5.60	30.4	-30.0
10	2450.7	-548.8	-743.8	2443.2	-519.9	-764.6	-7.50	28.9	-20.8
11	2377.0	-543.9	-756.3	2369.0	-515.8	-768.7	-8.00	28.1	-12.4
12	2303.6	-539.5	-766.9	2294.5	-514.0	-769.5	-9.10	25.5	-2.60
13	2228.6	-536.6	-774.8	2218.8	-513.9	-767.7	-9.80	22.7	7.10
14	2153.9	-534.8	-780.3	2144.2	-514.0	-764.6	-9.70	20.8	15.7
15	2078.6	-533.2	-784.4	2072.2	-511.4	-761.1	-6.40	21.8	23.3
16	1994.0	-530.7	-788.2	1987.8	-512.5	-766.7	-6.20	18.2	21.5
17	1997.9	-640.7	-617.4	1983.1	-627.8	-598.7	-14.8	12.9	18.7
18	2005.5	-715.1	-432.5	1991.4	-703.2	-413.5	-14.1	11.9	19.0
19	2017.7	-797.0	-250.4	2002.9	-786.6	-232.3	-14.8	10.4	18.1

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

LEFT SIDE DOOR FRAME MEASUREMENTS									
Pt.	Pre-test (mm)			Post-test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
20	2023.7	-828.8	-53.9	2008.6	-818.4	-35.3	-15.1	10.4	18.6
21	2005.6	-805.7	150.1	1987.5	-796.8	169.2	-18.1	8.90	19.1
22	1992.2	-791.9	331.1	1972.3	-781.5	352.7	-19.9	10.4	21.6
23	2142.8	-793.2	331.4	2124.4	-781.2	353.3	-18.4	12.0	21.9
24	2293.7	-793.3	334.8	2274.7	-779.3	355.7	-19.0	14.0	20.9
25	2446.2	-792.4	336.7	2427.0	-777.4	354.6	-19.2	15.0	17.9
26	2596.7	-790.7	338.8	2577.5	-767.7	349.9	-19.2	23.0	11.1
27	2747.1	-788.5	340.3	2726.8	-749.8	337.8	-20.3	38.7	-2.50
28	2898.5	-788.3	343.3	2876.1	-733.5	326.1	-22.4	54.8	-17.2
29	3050.3	-795.0	332.8	*	*	*	*	*	*
30	3102.2	-819.5	138.9	*	*	*	*	*	*
31	3124.6	-818.0	-53.3	*	*	*	*	*	*
32	3116.5	-778.1	-236.3	*	*	*	*	*	*
33	3502.1	-821.1	354.6	3238.8	-789.4	283.2	-263.3	31.7	-71.4
34	939.0	-809.2	320.1	928.1	-765.2	298.2	-10.9	44.0	-21.9

* Point damaged during test

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)



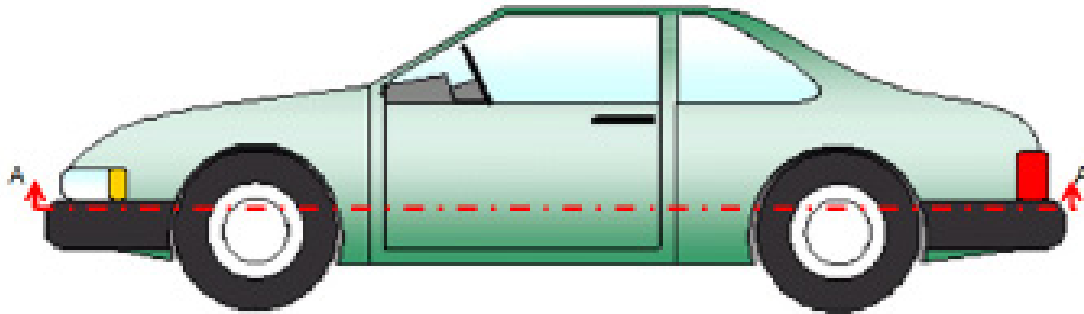
RIGHT SIDE DOOR FRAME MEASUREMENTS									
Pt.	Pre-test (mm)			Post-test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
35	3070.5	769.7	-421.6	3054.4	775.9	-431.1	-16.1	6.20	-9.50
36	3032.0	738.3	-483.6	3014.9	744.9	-493.4	-17.1	6.60	-9.80
37	2965.8	721.1	-523.2	2949.3	726.3	-533.6	-16.5	5.20	-10.4
38	2900.6	704.8	-561.4	2883.4	708.4	-571.6	-17.2	3.60	-10.2
39	2834.0	688.0	-597.4	2816.6	691.1	-606.0	-17.4	3.10	-8.60
40	2767.4	671.7	-630.9	2749.2	673.8	-639.2	-18.2	2.10	-8.30
41	2700.0	656.6	-660.6	2683.3	658.0	-668.1	-16.7	1.40	-7.50
42	2612.0	635.7	-699.4	2593.9	636.0	-706.2	-18.1	0.30	-6.80
43	2534.1	623.0	-724.1	2517.0	622.9	-729.9	-17.1	-0.10	-5.80
44	2455.4	613.7	-742.9	2437.7	613.2	-747.8	-17.7	-0.50	-4.90
45	2374.4	604.8	-759.7	2355.9	603.8	-764.0	-18.5	-1.00	-4.30
46	2290.3	599.3	-771.0	2271.2	597.6	-775.2	-19.1	-1.70	-4.20
47	2206.7	595.7	-779.1	2188.2	593.3	-782.7	-18.5	-2.40	-3.60
48	2124.5	591.6	-786.3	2106.6	589.2	-788.5	-17.9	-2.40	-2.20
49	2041.6	588.7	-790.4	2023.4	585.9	-792.1	-18.2	-2.80	-1.70
50	1960.4	584.1	-795.1	1942.3	580.8	-796.6	-18.1	-3.30	-1.50
51	1970.9	697.8	-620.7	1953.1	694.9	-621.9	-17.8	-2.90	-1.20
52	1978.1	770.4	-434.7	1962.0	767.9	-435.7	-16.1	-2.50	-1.00
53	1991.2	853.1	-250.9	1976.7	851.0	-252.0	-14.5	-2.10	-1.10

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

RIGHT SIDE DOOR FRAME MEASUREMENTS									
Pt.	Pre-test (mm)			Post-test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
54	1994.9	881.5	-41.7	1981.8	879.5	-42.5	-13.1	-2.00	-0.80
55	1978.2	855.3	161.3	1966.6	853.8	160.3	-11.6	-1.50	-1.00
56	1956.0	844.0	324.5	1944.3	842.8	324.4	-11.7	-1.20	-0.10
57	2106.3	847.6	325.5	2095.5	846.0	323.2	-10.8	-1.60	-2.30
58	2256.9	849.8	326.2	2245.6	847.5	323.0	-11.3	-2.30	-3.20
59	2410.7	851.6	329.7	2400.1	848.0	324.0	-10.6	-3.60	-5.70
60	2564.2	852.1	330.5	2553.2	847.2	324.5	-11.0	-4.90	-6.00
61	2717.6	852.2	332.0	2706.1	846.6	326.1	-11.5	-5.60	-5.90
62	2871.0	854.3	335.8	2860.7	846.9	326.3	-10.3	-7.40	-9.50
63	3023.8	863.1	323.2	3014.3	856.5	316.3	-9.50	-6.60	-6.90
64	3073.6	887.5	134.7	3063.7	884.3	126.7	-9.90	-3.20	-8.00
65	3097.6	887.0	-57.2	3086.3	887.5	-64.8	-11.3	0.50	-7.60
66	3090.3	847.9	-242.8	3077.8	852.0	-251.2	-12.5	4.10	-8.40
67	3470.6	896.1	347.2	3501.5	838.8	310.0	30.9	-57.3	-37.2
68	919.0	837.2	323.7	*	*	*	*	*	*

* Point damaged during test

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)



SECTION A - A							
Pt.	Pre-test			Pt.	Post-test		
	X	Y	Z		X	Y	Z
1	0.10	0.12	-2.97	1	-2.23	1.22	-1.03
2	0.70	-100.0	3.61	2	-0.09	-98.5	1.80
3	8.00	-202.4	0.12	3	7.23	-200.7	-1.86
4	17.9	-307.7	0.95	4	17.2	-305.9	-1.01
5	31.9	-407.8	1.11	5	31.1	-405.8	-0.94
6	52.1	-504.5	-5.58	6	51.2	-502.7	-7.24
7	78.3	-602.2	-7.44	7	76.8	-600.4	-8.97
8	123.3	-687.6	-6.71	8	121.2	-686.5	-7.96
9	204.8	-739.7	-7.83	9	202.0	-738.4	-8.37
10	300.4	-764.6	0.77	10	297.6	-763.6	1.98
11	397.7	-780.8	7.70	11	394.6	-779.7	8.91
12	495.0	-793.8	16.6	12	492.8	-792.7	19.9
13	592.6	-808.9	21.4	13	589.2	-807.5	26.3
14	695.8	-820.7	29.1	14	692.1	-817.8	33.9
15	1296.7	-828.4	46.3	15	1286.9	-832.7	58.0
16	1396.9	-822.1	51.0	16	1386.6	-825.3	63.5
17	1496.0	-818.3	51.1	17	1486.8	-820.1	65.0
18	1597.9	-816.7	53.9	18	1588.0	-817.2	68.0
19	1697.2	-816.4	54.7	19	1685.2	-810.1	72.2
20	1796.7	-815.5	59.5	20	1785.0	-808.7	76.9
21	1894.8	-815.1	58.9	21	1885.2	-807.1	78.3
22	1995.2	-814.4	64.3	22	1985.4	-804.8	83.9
23	2095.2	-812.1	67.8	23	2080.0	-806.1	88.5
24	2196.3	-809.9	73.1	24	2181.7	-804.3	89.8
25	2294.2	-807.6	78.4	25	2280.2	-802.1	91.5
26	2393.9	-805.1	83.9	26	2379.4	-800.7	91.7
27	2493.2	-802.7	87.9	27	2478.5	-798.7	91.5
28	2593.6	-800.0	93.2	28	2579.4	-798.7	91.5

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

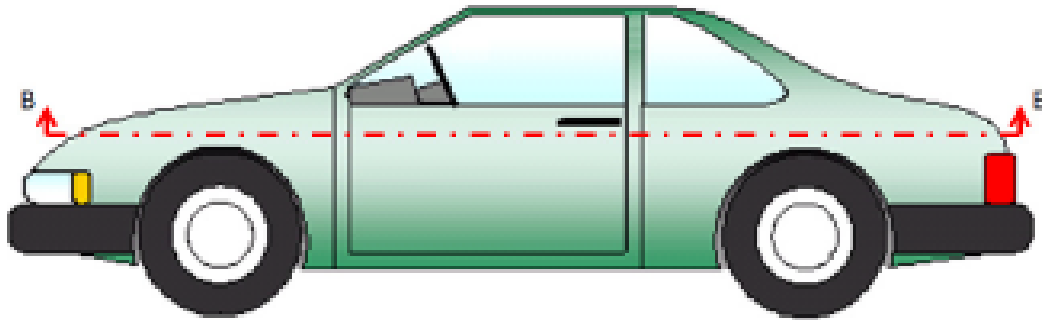
SECTION A - A							
Pt.	Pre-test			Pt.	Post-test		
	X	Y	Z		X	Y	Z
29	2692.4	-797.8	96.3	29	2677.6	-793.4	91.6
30	2792.5	-795.8	99.8	30	2778.5	-786.3	90.9
31	2890.4	-795.1	104.5	31	2875.7	-771.8	90.2
32	3003.2	-811.6	107.1	32	2975.6	-761.3	86.0
33	3102.2	-818.8	112.3	33	3070.4	-788.6	91.1
34	3203.5	-829.0	116.9	34	3099.6	-809.4	83.5
35	3816.1	-819.8	27.7	35	*	*	*
36	3912.8	-794.3	33.0	36	*	*	*
37	4001.4	-761.5	41.4	37	*	*	*
38	4081.0	-698.3	39.0	38	5244.0	489.3	110.3
39	4140.8	-620.7	45.0	39	5196.1	569.1	141.7
40	4191.1	-536.2	50.9	40	5141.6	644.8	170.2
41	4229.4	-445.4	58.3	41	5074.5	714.6	195.8
42	4263.4	-351.4	60.9	42	5003.9	783.7	213.5
43	4289.0	-253.8	65.1	43	4927.2	846.1	230.2
44	4307.5	-157.5	76.8	44	4844.8	900.0	249.0
45	4320.6	-60.1	95.4	45	4755.8	945.5	277.2
46	4323.1	40.7	97.5	46	4669.3	991.7	281.5
47	4315.6	140.6	85.6	47	4581.2	1037.3	264.1
48	4269.8	325.6	79.2	48	4488.2	1072.2	254.9
49	4243.5	421.1	69.0	49	4395.2	1101.2	234.5
50	4209.9	513.9	63.1	50	4301.1	1128.6	219.9
51	4171.1	604.1	50.5	51	4207.2	1149.0	191.9
52	4119.9	689.1	43.1	52	4109.6	1154.0	163.7
53	4059.8	768.6	34.1	53	4017.7	1150.6	130.7
54	3985.1	832.7	31.0	54	3928.9	1126.4	94.1
55	3893.8	870.0	25.7	55	3857.5	1076.8	48.5
56	3797.5	894.1	17.5	56	3795.6	1019.4	-3.45
57	3698.4	909.9	19.4	57	3738.8	949.9	-48.5
58	3101.8	892.7	72.2	58	3092.5	891.2	62.5
59	3011.2	884.1	73.4	59	2999.3	882.7	63.7
60	2912.2	879.4	69.5	60	2899.8	878.0	61.3
61	2810.7	877.6	63.1	61	2798.4	876.0	57.4
62	2712.7	877.1	59.7	62	2699.3	875.1	53.6
63	2611.6	876.7	57.9	63	2598.6	874.5	53.6
64	2512.2	876.4	56.3	64	2499.1	874.0	51.5
65	2411.7	876.0	55.5	65	2399.0	873.3	49.9

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

SECTION A - A							
Pt.	Pre-test			Pt.	Post-test		
	X	Y	Z		X	Y	Z
66	2311.5	875.8	51.8	66	2300.0	872.7	47.3
67	2210.5	874.5	53.9	67	2199.7	870.8	48.9
68	2113.3	873.5	53.0	68	2101.1	869.3	50.3
69	2012.4	872.5	52.5	69	2000.1	867.5	51.7
70	1911.9	870.9	51.6	70	1899.8	868.7	48.5
71	1813.1	868.7	49.8	71	1799.5	866.4	48.6
72	1711.0	866.6	45.3	72	1698.3	865.0	43.1
73	1610.5	864.2	44.9	73	1598.7	862.7	43.0
74	1510.2	862.4	44.5	74	1498.9	861.1	41.7
75	1410.5	862.5	43.5	75	1397.9	861.3	43.0
76	1309.4	865.1	44.7	76	1297.0	863.7	44.7
77	1208.9	866.9	45.4	77	1197.6	866.6	46.2
78	583.1	829.7	25.5	78	571.2	832.5	24.2
79	484.8	811.5	21.5	79	484.7	809.7	22.3
80	386.5	795.0	16.4	80	385.8	793.4	17.9
81	289.0	776.2	10.0	81	290.2	775.5	9.42
82	193.9	751.2	10.1	82	195.4	750.6	8.71
83	111.0	701.0	1.53	83	111.8	700.3	0.99
84	64.1	614.8	-4.25	84	65.1	616.0	-3.57
85	39.8	518.3	-3.90	85	40.0	518.2	-3.12
86	21.7	417.9	-0.02	86	22.2	418.3	-0.28
87	11.3	318.6	-2.29	87	11.5	319.2	-2.38
88	2.30	218.9	2.68	88	2.26	218.4	2.85
89	-0.43	119.3	-0.58	89	-0.10	119.1	-1.47

* Point damaged during test

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)



SECTION B-B							
Pt.	Pre-test			Pt.	Post-test		
	X	Y	Z		X	Y	Z
1	155.1	-3.27	-448.0	1	155.5	-0.89	-446.8
2	159.1	-103.6	-448.0	2	160.1	-101.2	-446.7
3	164.5	-203.0	-446.1	3	165.4	-199.9	-444.5
4	178.7	-300.9	-445.2	4	179.8	-298.6	-443.6
5	194.4	-399.6	-441.8	5	195.5	-397.3	-440.0
6	220.3	-496.9	-438.9	6	221.3	-493.2	-436.8
7	251.8	-589.2	-431.5	7	253.3	-583.6	-431.7
8	331.6	-639.0	-426.5	8	333.1	-634.2	-426.3
9	429.8	-658.3	-426.2	9	431.3	-654.6	-424.9
10	527.6	-671.7	-427.0	10	532.5	-669.0	-425.7
11	629.3	-681.0	-429.4	11	633.6	-679.5	-426.2
12	730.0	-688.7	-429.4	12	733.8	-687.5	-425.1
13	829.8	-696.3	-426.5	13	834.0	-695.7	-420.6
14	931.2	-701.5	-427.3	14	934.8	-700.9	-419.8
15	1036.1	-700.6	-416.5	15	1026.5	-718.3	-408.0
16	1135.0	-710.8	-402.7	16	1124.6	-726.2	-393.3
17	1236.0	-716.5	-399.9	17	1225.7	-730.0	-389.6
18	1335.9	-722.7	-395.0	18	1326.1	-734.5	-386.1
19	1437.4	-727.7	-390.7	19	1426.8	-737.8	-378.4
20	1538.3	-732.0	-386.2	20	1527.9	-739.7	-373.6
21	1638.3	-734.0	-383.4	21	1628.1	-740.2	-369.0
22	1738.9	-737.2	-378.2	22	1728.5	-742.0	-363.2
23	1840.5	-739.2	-372.9	23	1830.3	-742.4	-357.7
24	1941.5	-740.9	-367.2	24	1927.5	-730.4	-349.4
25	2043.1	-743.2	-361.3	25	2002.3	-767.4	-343.7
26	2141.4	-744.4	-354.6	26	2101.2	-769.4	-341.8
27	2242.9	-745.7	-346.7	27	2203.1	-768.0	-337.8

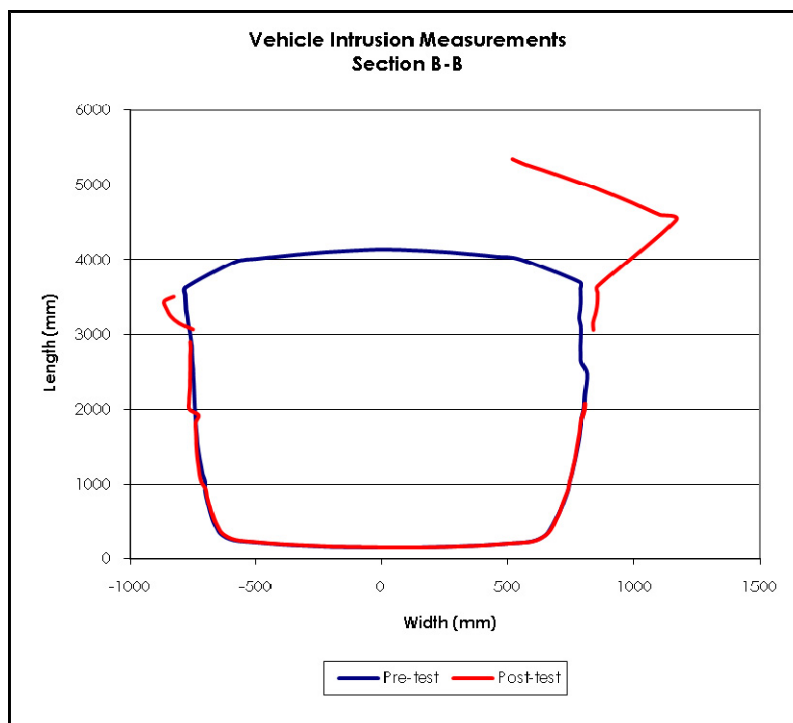
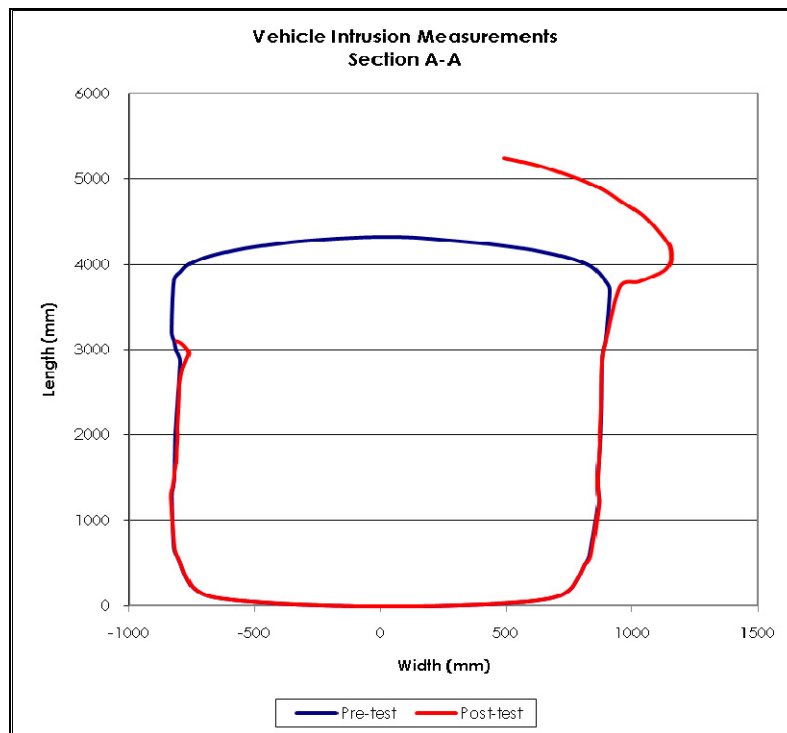
DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

SECTION B - B							
Pt.	Pre-test			Pt.	Post-test		
	X	Y	Z		X	Y	Z
28	2343.1	-746.9	-338.8	28	2303.3	-765.6	-333.6
29	2443.0	-748.6	-329.9	29	2403.9	-765.1	-328.1
30	2544.9	-749.7	-320.5	30	2505.4	-764.6	-322.7
31	2642.9	-752.7	-310.4	31	2604.5	-764.4	-316.8
32	2743.3	-754.1	-300.4	32	2704.8	-764.7	-310.3
33	2842.8	-754.9	-290.5	33	2804.2	-763.0	-305.0
34	2944.0	-758.7	-279.4	34	2907.2	-764.6	-297.9
35	3039.9	-762.9	-268.7	35	*	*	*
36	3139.3	-769.0	-257.3	36	3071.0	-752.7	-283.5
37	3238.1	-772.5	-249.0	37	3153.9	-806.8	-281.1
38	3338.0	-777.2	-240.3	38	3247.0	-840.9	-272.1
39	3437.4	-779.0	-233.2	39	3343.9	-858.0	-262.5
40	3537.7	-780.7	-221.1	40	3443.7	-867.8	-249.3
41	3635.7	-778.4	-206.6	41	3506.0	-827.9	-208.6
42	3969.6	-586.4	-177.5	42	*	*	*
43	4018.2	-499.2	-185.4	43	5345.5	517.1	178.2
44	4051.4	-405.8	-181.8	44	5272.2	570.0	219.5
45	4084.3	-310.6	-191.1	45	5204.4	633.4	261.0
46	4110.4	-214.3	-197.4	46	5134.7	695.0	296.4
47	4128.7	-117.1	-201.7	47	5062.3	757.5	322.4
48	4143.3	-20.3	-205.6	48	4991.2	819.2	345.5
49	4139.2	77.6	-202.5	49	4912.2	880.2	348.7
50	4124.8	175.3	-198.0	50	4834.5	939.0	344.7
51	4104.8	270.6	-192.5	51	4757.8	995.0	332.1
52	4077.0	364.7	-184.5	52	4675.3	1050.4	313.3
53	4046.5	458.9	-177.6	53	4597.2	1104.4	289.9
54	4008.7	549.9	-181.8	54	4524.4	1166.4	259.8
55	3703.6	786.1	-201.0	55	3643.1	855.5	-221.6
56	3618.6	788.8	-218.7	56	3557.9	856.4	-238.9
57	3520.1	789.7	-234.1	57	3459.2	855.8	-254.1
58	3427.4	790.1	-244.2	58	3366.6	853.1	-264.7
59	3326.7	787.5	-255.0	59	3265.1	846.3	-275.5
60	3229.2	783.5	-266.9	60	3168.3	837.4	-286.0
61	3126.6	790.3	-263.4	61	3063.8	838.8	-282.2
62	3027.5	791.0	-269.3	62	*	*	*
63	2927.2	790.1	-280.9	63	*	*	*
64	2825.6	788.7	-290.6	64	*	*	*

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

SECTION B - B							
Pt.	Pre-test			Pt.	Post-test		
	X	Y	Z		X	Y	Z
65	2725.6	789.7	-300.4	65	*	*	*
66	2627.1	791.4	-307.9	66	*	*	*
67	2476.5	813.3	-327.9	67	*	*	*
68	2195.3	804.7	-350.8	68	*	*	*
69	2093.7	803.4	-356.9	69	2078.3	805.6	-361.7
70	1994.8	800.4	-363.8	70	1980.0	802.2	-368.1
71	1887.8	792.5	-372.9	71	1872.9	791.8	-376.0
72	1791.3	791.2	-377.3	72	1776.5	787.9	-381.1
73	1694.6	787.2	-383.2	73	1679.5	785.2	-384.3
74	1595.8	783.2	-386.3	74	1579.9	779.3	-389.0
75	1347.4	768.3	-397.9	75	1331.9	766.6	-399.1
76	1247.3	761.1	-402.7	76	1231.5	759.4	-403.3
77	1143.1	754.1	-406.4	77	1128.0	752.8	-406.1
78	1040.4	745.2	-413.0	78	1025.9	744.0	-412.5
79	940.8	739.9	-409.3	79	927.4	738.3	-407.6
80	842.9	729.9	-414.0	80	829.8	726.4	-410.6
81	742.5	718.5	-418.8	81	729.7	714.9	-413.9
82	642.9	706.2	-422.1	82	629.3	705.6	-420.1
83	504.3	685.3	-425.7	83	491.3	686.0	-424.2
84	404.2	668.8	-424.3	84	390.9	671.0	-422.7
85	310.0	645.9	-425.5	85	307.0	646.2	-425.7
86	235.1	593.2	-430.2	86	231.2	595.9	-428.6
87	206.0	499.3	-437.5	87	203.4	498.1	-439.0
88	183.8	401.5	-440.0	88	179.6	401.8	-440.9
89	171.5	308.1	-441.4	89	165.9	303.5	-443.7
90	161.1	208.6	-443.2	90	156.4	202.8	-445.3
91	157.3	107.3	-445.3	91	152.5	102.3	-446.6

DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)



DATA SHEET NO. 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

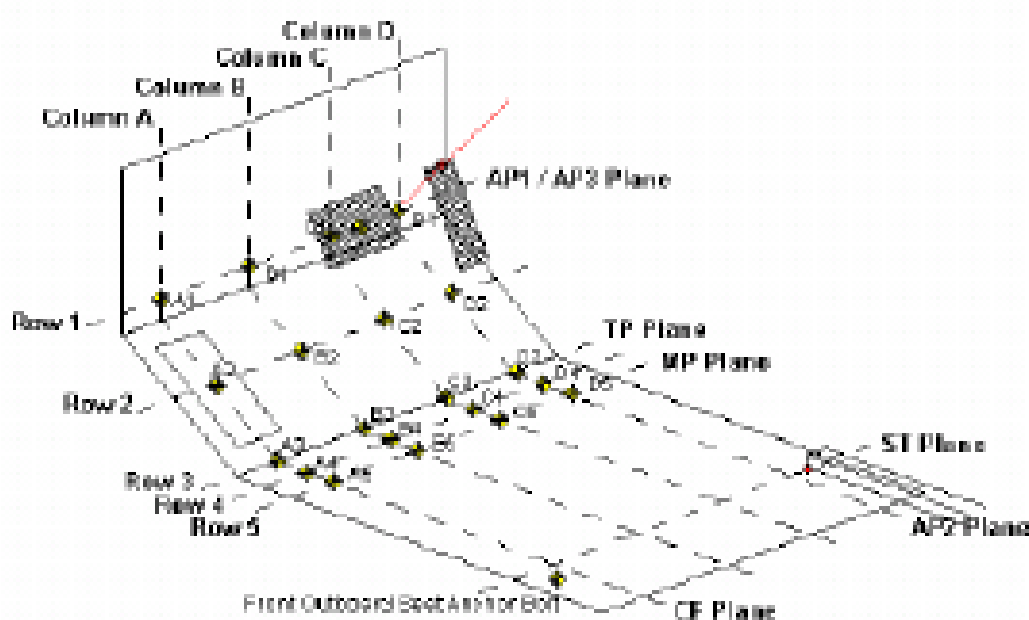
TEST VEHICLE FRONTAL PROFILE DATA - PRE							
		Vehicle Left			Vehicle Right		
		Pt. 1	Pt. 2	Pt. 3	Pt. 4	Pt. 5	Pt. 6
Bottom of Front Bumper	X	4110.5	4209.2	4241.2	4243.0	4217.5	4122.8
	Y	-589.8	-367.0	-124.4	124.6	371.0	602.8
	Z	192.3	204.2	203.1	205.7	206.8	190.9
Top of Front Bumper	X	4113.4	4208.9	4238.0	4241.2	4216.8	4123.8
	Y	-587.8	-365.7	-124.1	123.1	374.1	603.8
	Z	97.1	105.8	104.0	105.2	106.5	101.2
Upper Radiator Support	X	3748.9	4024.2	4027.1	4035.4	4038.0	3770.3
	Y	-676.2	-419.6	-108.6	167.3	426.6	690.6
	Z	-216.8	-99.6	-179.0	-176.9	-97.1	-228.9

TEST VEHICLE FRONTAL PROFILE DATA - POST							
		Vehicle Left			Vehicle Right		
		Pt. 1	Pt. 2	Pt. 3	Pt. 4	Pt. 5	Pt. 6
Bottom of Front Bumper	X	4001.0	4115.1	4158.5	4174.8	4164.7	4081.3
	Y	-490.9	-287.0	-56.2	174.1	402.7	628.8
	Z	-196.0	-131.7	-55.1	30.3	118.6	199.5
Top of Front Bumper	X	3974.6	4088.0	4132.7	4154.5	4148.7	4070.2
	Y	-462.5	-250.4	-22.3	208.2	442.1	660.3
	Z	-278.7	-221.5	-147.1	-62.3	30.2	117.7
Upper Radiator Support	X	3528.5	3810.9	3914.2	3912.1	3961.9	3711.5
	Y	-368.8	-304.9	-9.38	274.5	488.3	753.7
	Z	-373.8	-385.7	-394.8	-304.1	-140.5	-255.0

DATA SHEET NUMBER 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

TEST VEHICLE FRONTAL PROFILE DATA - CHANGE							
		Vehicle Left			Vehicle Right		
		Pt. 1	Pt. 2	Pt. 3	Pt. 4	Pt. 5	Pt. 6
Bottom of Front Bumper	X	-109.5	-94.1	-82.7	-68.2	-52.8	-41.5
	Y	98.9	80.0	68.2	49.5	31.7	26.0
	Z	-388.0	-335.9	-258.2	-175.4	-88.2	8.60
Top of Front Bumper	X	-138.8	-120.9	-105.3	-86.7	-68.1	-53.6
	Y	125.3	115.3	101.8	85.1	68.0	56.5
	Z	-375.8	-327.3	-251.1	-167.5	-76.3	16.5
Upper Radiator Support	X	-220.4	-213.3	-112.9	-123.3	-76.1	-58.8
	Y	307.4	114.7	99.2	107.2	61.7	63.1
	Z	-157.0	-286.1	-215.8	-127.2	-43.4	-26.1

DATA SHEET NUMBER 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)



AP1: Y – Z plane passing through D1

AP2: X – Z plane passing through D1

AP3: X – Y plane passing through D1

MP: Y – Z plane, halfway between the ST plane and the AP1 plane

CF plane: X – Z plane passing through the center of the footrest

BP plane: X – Z plane passing through the center of the brake pedal

TP plane: Y – Z plane, the intersection of the BP plane and the intersection of the toe pan and floorboard

Column A: The intersection of the vehicle and the CF plane

Column D: The intersection of the vehicle and the AP2 plane

Row 1: The intersection of the vehicle and the AP3 plane

Row 3: The intersection of the vehicle of the TP plane

Row 5: The intersection of the vehicle and the MP plane

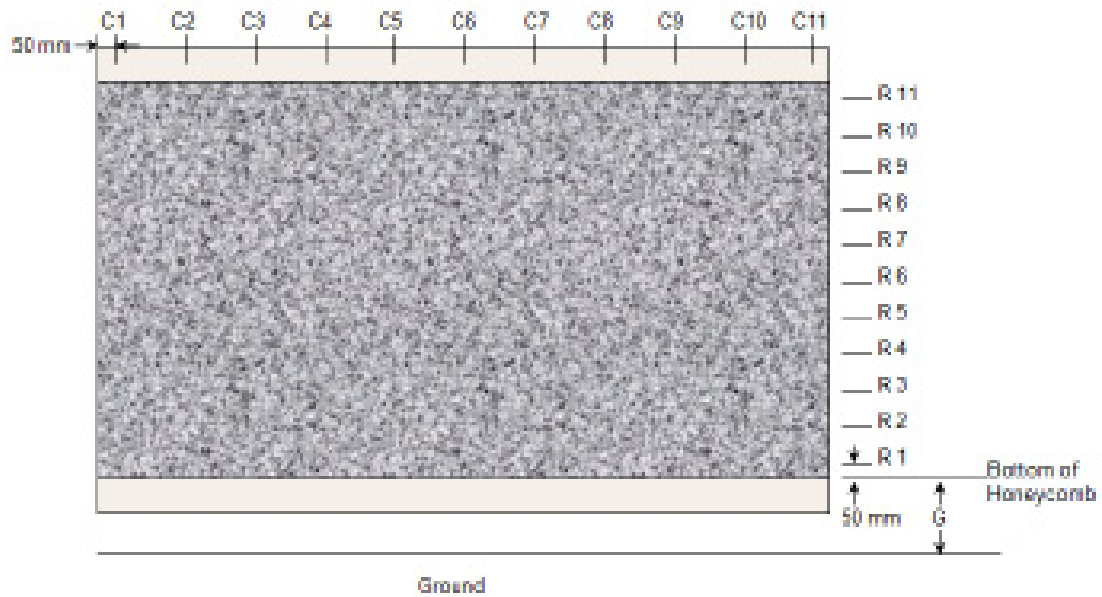
Row 2: evenly spaced between rows 1 and 3

Row 4: evenly spaced between rows 3 and 5

DATA SHEET NUMBER 13
VEHICLE INTRUSION MEASUREMENTS (CONTINUED)

FLOORBOARD MEASUREMENTS									
Intrusion Location	Pre-test (mm)			Post-test (mm)			Difference (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	3131.1	-524.2	215.9	3057.0	-451.8	151.4	-74.1	72.4	-64.5
B1	3184.8	-433.4	288.7	3107.5	-382.8	177.1	-77.3	50.6	-111.6
C1	3179.3	-353.5	292.7	3094.3	-287.9	186.7	-85.0	65.6	-106.0
D1	3176.1	-269.1	290.9	3085.6	-287.9	176.2	-90.5	-18.8	-114.7
A2	3078.4	-529.0	286.5	3026.2	-477.7	211.3	-52.2	51.3	-75.2
B2	3107.1	-438.6	330.5	3046.1	-388.7	243.7	-61.0	49.9	-86.8
C2	3104.8	-353.4	330.0	3023.8	-307.4	218.2	-81.0	46.0	-111.8
D2	3102.8	-267.5	333.0	3017.6	-229.6	210.4	-85.2	37.9	-122.6
A3	3019.9	-521.4	363.0	2980.0	-480.8	299.2	-39.9	40.6	-63.8
B3	3021.4	-435.8	370.6	2973.8	-394.1	295.2	-47.6	41.7	-75.4
C3	3020.4	-353.0	369.3	2959.6	-313.6	280.2	-60.8	39.4	-89.1
D3	3019.6	-269.5	368.2	2960.3	-234.3	281.5	-59.3	35.2	-86.7
A4	2931.2	-522.3	371.1	2891.3	-486.6	330.5	-39.9	35.7	-40.6
B4	2934.5	-436.3	377.0	2887.5	-401.5	324.1	-47.0	34.8	-52.9
C4	2932.7	-353.3	378.0	2883.6	-317.9	316.7	-49.1	35.4	-61.3
D4	2933.8	-265.6	378.7	2878.3	-230.5	310.4	-55.5	35.1	-68.3
A5	2852.7	-519.1	375.7	2817.6	-481.1	357.1	-35.1	38.0	-18.6
B5	2849.9	-431.7	378.3	2809.4	-398.7	344.3	-40.5	33.0	-34.0
C5	2848.7	-350.6	381.3	2803.4	-318.9	322.7	-45.3	31.7	-58.6
D5	2849.3	-264.0	381.2	2804.0	-233.5	334.7	-45.3	30.5	-46.5
Brake pedal	3060.8	-403.0	192.4	2934.1	-291.8	161.5	-126.7	111.2	-30.9
IP left	2835.7	-465.3	-95.9	2735.0	-431.5	-169.7	-100.7	33.8	-73.8
IP right	2834.7	-128.8	-88.2	2761.8	-91.4	-138.7	-72.9	37.4	-50.5
Steering column	2625.5	-290.5	-266.6	2573.4	-250.7	-327.5	-52.1	39.8	-60.9
Front outboard bolt	2570.4	-570.7	296.0	2517.1	-568.5	317.7	-53.3	2.20	21.7

DATA SHEET NUMBER 14
MDB CRUSH MEASUREMENTS



BARRIER X-CRUSH												
		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
		50 mm	# mm	# mm	# mm	# mm	# mm	# mm	# mm	# mm	# mm	# mm
R1	# mm											
R2	# mm											
R3	# mm											
R4	# mm											
R5	# mm											
R6	# mm											
R7	# mm											
R8	# mm											
R9	# mm											
R10	# mm											
R11	# mm											

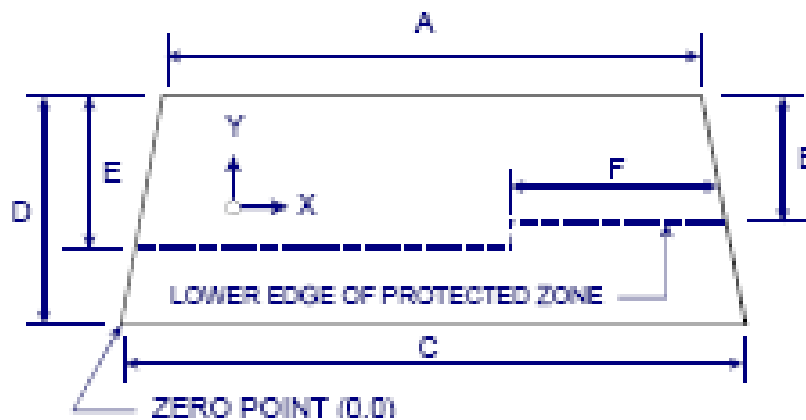
* No MDB was used in test

DATA SHEET NUMBER 15
SUMMARY OF FMVSS 212, 219 (PARTIAL), AND 301 DATA

Windshield mounting: standard mount

Temperature of windshield molding during test: not measured

WINDSHIELD PERIPHERY MEASUREMENTS			
Measurement	Pre-test (mm)	Post-test (mm)	% Retention
Left side	2014	1976	98.1
Right side	2014	2046	101.6
Total	4028	4022	99.9



WINDSHIELD MEASUREMENTS		
A	mm	1070
B	mm	495
C	mm	1320
D	mm	819
E	mm	500
F	mm	749

AREA OF PROTECTED ZONE FAILURES

A. Provide coordinates of the area that the protected zone was penetrated more the 0.25 inches by a vehicle component other than one that is normally in contact with the windshield

B. Provide coordinates of the area beneath the protected zone that the inner surface of the windshield was penetrated by a vehicle component

A	
X	Y
3178.0	-431.0
3165.2	-497.3
3171.8	-502.4
3194.3	-437.8

B*	
X	Y

* B unable to be taken due to structural interference

DATA SHEET NUMBER 15
SUMMARY OF FMVSS 212, 219 (PARTIAL), AND 301 DATA (CONTINUED)

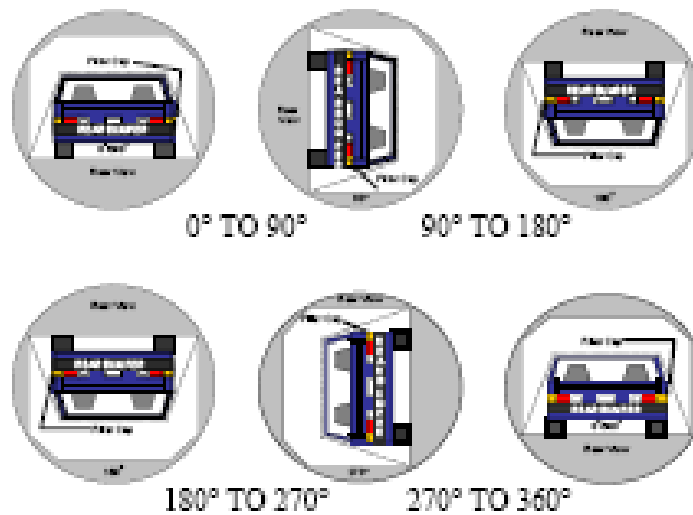
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at time of impact: 24° C

Test time: 8:30 pm

STODDARD SOLVENT SPILLAGE MEASUREMENTS				
Period	Description	Maximum allowable spillage	Spillage	
			Amount	Location
A	From impact until vehicle motion ceases	1 oz	0	N/a
B	5 minutes after vehicle motion ceases	5 oz	0	N/a
C	Next 25 minutes	1 oz/minute	0	N/a

DATA SHEET NUMBER 16
SUMMARY OF FMVSS 301 STATIC ROLLOVER RESULTS

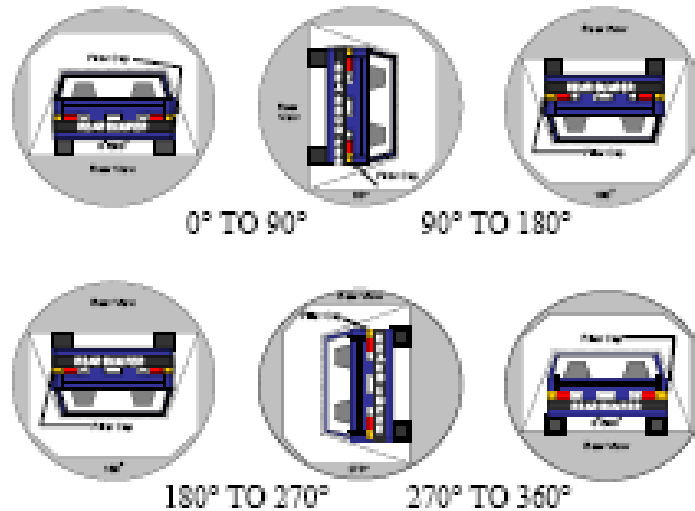


FMVSS301 SOLVENT COLLECTION TIME TABLE			
Test phase	Rotation time (sec.)	Hold time (sec.)	Total time (sec.)
Tolerance	60-180	>= 300	-
0° to 90°	64	300	364
90° to 180°	67	300	367
180° to 270°	66	300	366
270° to 360°	65	300	365

FMVSS 301 SPILLAGE TABLE				
Test phase	First 5 min.	6 th min.	7 th min.	8 th min.
0° to 90°	0	0	0	0
90° to 180°	0	0	0	0
180° to 270°	0	0	0	0
270° to 360°	0	0	0	0

FMVSS 301 SPILLAGE TABLE	
Test phase	Spillage location
0° to 90°	N/a
90° to 180°	N/a
180° to 270°	N/a
270° to 360°	N/a

DATA SHEET NUMBER 16A
SUMMARY OF FMVSS 305 STATIC ROLLOVER RESULTS FOR
ELECTRIC-POWERED VEHICLES



FMVSS305 ELECTROLYTE COLLECTION TIME TABLE			
Test phase	Rotation time (sec.)	Hold time (sec.)	Total time (sec.)
Tolerance	60-180	>= 300	-
0° to 90°			
90° to 180°			
180° to 270°			
270° to 360°			

FMVSS305 ELECTROLYTE SPILLAGE TABLE	
Test phase	Spillage location
0° to 90°	N/a
90° to 180°	N/a
180° to 270°	N/a
270° to 360°	N/a

Total spillage (L):

1. Is the total spillage of propulsion battery electrolyte greater than 5.0 Liters?
 YES NO (fail)
2. Is propulsion battery electrolyte spillage visible in the passenger compartment?
 YES NO (fail)

DATA SHEET NUMBER 16A
SUMMARY OF FMVSS 305 STATIC ROLLOVER RESULTS FOR
ELECTRIC-POWERED VEHICLES (CONTINUED)

ELECTRICAL ISOLATION CALCULATION

$$Ri1 = Ro (1 + V2/V1)[V1 - V1']/V1']$$

Ri1 = _____ Ω 90°	Time: _____ minutes _____ seconds
Ri1 = _____ Ω 180°	Time: _____ minutes _____ seconds
Ri1 = _____ Ω 270°	Time: _____ minutes _____ seconds
Ri1 = _____ Ω 360°	Time: _____ minutes _____ seconds

$$Ri2 = Ro (1 + V2/V1)[V2 - V2']/V2']$$

Ri2 = _____ Ω 90°	Time: _____ minutes _____ seconds
Ri2 = _____ Ω 180°	Time: _____ minutes _____ seconds
Ri2 = _____ Ω 270°	Time: _____ minutes _____ seconds
Ri2 = _____ Ω 360°	Time: _____ minutes _____ seconds

Ri = the lesser of Ri1 and Ri2

Ri = _____ Ω 90°	Time: _____ minutes _____ seconds
Ri = _____ Ω 180°	Time: _____ minutes _____ seconds
Ri = _____ Ω 270°	Time: _____ minutes _____ seconds
Ri = _____ Ω 360°	Time: _____ minutes _____ seconds

Ri/Vb = electrical isolation value/nominal battery voltage

Minimum electrical isolation value is 500 Ω /V

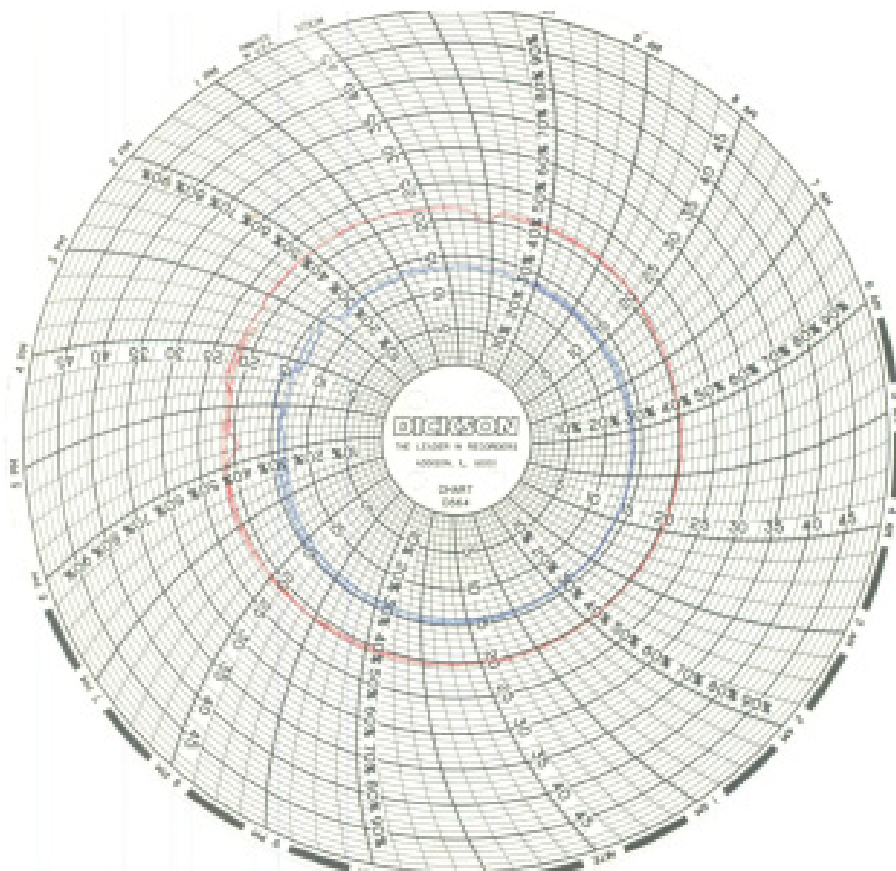
Ri/Vb = _____ Ω 90°	Time: _____ minutes _____ seconds
Ri/Vb = _____ Ω 180°	Time: _____ minutes _____ seconds
Ri/Vb = _____ Ω 270°	Time: _____ minutes _____ seconds
Ri/Vb = _____ Ω 360°	Time: _____ minutes _____ seconds

- Is the measured electrical isolation value $\geq$ 500 Ω /V?
YES NO (fail)

COMMENTS:

Note: If measured voltage is zero and results in a division by zero, record "zero volts." This "zero voltage" condition is considered as being compliant.

DATA SHEET NUMBER 17
DUMMY/VEHICLE TEMPERATURE STABILIZATION



DATA SHEET NUMBER 18
PRE-IMPACT ELECTRIC ISOLATION MEASUREMENTS AND CALCULATIONS
(ELECTRIC VEHICLES ONLY)

VOLTMETER INFORMATION

Make: _____
Model: _____
S/n: _____
Internal impedance value (MΩ): _____
Resolution (V): _____
Last calibration date: _____

PROPULSION BATTERY INFORMATION

Normal operating voltage range specified by the manufacturer = $V_b =$ _____ V

PROPULSION BATTERY TO VEHICLE CHASSIS

Vehicle chassis point(s) determined and supplied to contractor by COTR

$V_1 =$ _____ V

$V_2 =$ _____ V

PROPULSION BATTERY TO VEHICLE CHASSIS ACROSS RESISTOR

$R_o =$ _____ Ω

ELECTRICAL ISOLATION MEASUREMENT

Note: If measured voltage is zero and results in a division by zero, record "zero volts." This "zero voltage" condition is considered as being compliant.

$V_1' =$ _____ V

$R_{i1} = R_o (1 + V_2/V_1)[(V_1 - V_1')/V_1']$

$R_{i1} =$ _____ Ω

$V_2' =$ _____ V

$R_{i2} = R_o (1 + V_1/V_2)[(V_2 - V_2')/V_2']$

$R_{i2} =$ _____ Ω

$R_i =$ the lesser of R_{i1} and R_{i2}

$R_i =$ _____ Ω pre-test

$R_i/V_b =$ _____ Ω/V (electrical isolation value); minimum = 500 Ω/V

- Is the measured electrical isolation value ≥ 500 Ω/V?
YES NO (fail)

COMMENTS:

DATA SHEET NUMBER 19
POST-IMPACT ELECTRIC ISOLATION MEASUREMENTS AND CALCULATIONS
(ELECTRIC VEHICLES ONLY)

Make: _____
Model: _____
S/n: _____
Internal impedance value: _____ MΩ
Nominal propulsion battery voltage (Vb): _____ V

Note: Record V1, V2, and V1', V2' voltage measurements immediately after the impacted vehicle comes to rest.

V1 = _____ V; Impact time: _____ minutes _____ s
V2 = _____ V; Impact time: _____ minutes _____ s
V1' = _____ V; Impact time: _____ minutes _____ s
V2' = _____ V; Impact time: _____ minutes _____ s

ELECTRICAL ISOLATION MEASUREMENT

Note: If measured voltage is zero and results in a division by zero, record "zero volts." This "zero voltage" condition is considered as being compliant.

$R_{i1} = R_o (1 + V2/V1)[(V1 - V1')/V1']$
 $R_{i1} = \text{_____ } \Omega$ Impact time: _____ minutes _____ s
 $R_{i2} = R_o (1 + V1/V2)[(V2 - V2')/V2']$
 $R_{i2} = \text{_____ } \Omega$ Impact time: _____ minutes _____ s
 $R_i = \text{the lesser of } R_{i1} \text{ and } R_{i2}$
 $R_i = \text{_____ } \Omega$ Impact time: _____ minutes _____ s
 $R_i/V_b = \text{Electrical isolation value/Nominal battery voltage}$
Minimum electrical isolation value is 500 Ω/V
 $R_i/V_b = \text{_____ } \Omega/V$ Impact time: _____ minutes _____ s

- Is the measured electrical isolation value $\geq 500 \Omega/V$?
YES NO (fail)

PROPULSION BATTERY SYSTEM COMPONENTS

Describe propulsion battery module movement within the passenger compartment:

DATA SHEET NUMBER 19
POST-IMPACT ELECTRIC ISOLATION MEASUREMENTS AND CALCULATIONS (CONTINUED)
(ELECTRIC VEHICLES ONLY)

Has the propulsion battery module moved within the passenger compartment?

YES NO (fail)

Describe intrusion of an outside propulsion battery component into the passenger compartment:

Has an outside propulsion battery component intruded into the passenger compartment?

YES NO (fail)

Is propulsion battery electrolyte spillage visible in the passenger compartment?

YES NO (fail)

Test Vehicle: 2010 Toyota Yaris 4-Door Sedan
Test Program: Frontal Small Overlap

NHTSA Number: RA5133
Test Date: October, 19 2010

APPENDIX A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

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A-46	Post test driver knee bolster	A-26

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Figure A-1: Left front 3/4 view, as received (exemplar)



Figure A-2: Right rear 3/4 view, as received (exemplar)



Figure A-3: Manufacturer's label



Figure A-4: Tire placard



Figure A-5: Pre test front view of test vehicle



Figure A-6: Post test front view of test vehicle



Figure A-7: Pre test left front 3/4 view of test vehicle



Figure A-8: Post test left front 3/4 view of test vehicle



Figure A-9: Pre test left side view of test vehicle



Figure A-10: Post test left side view of test vehicle



Figure A-11: Pre test left rear 3/4 view of test vehicle



Figure A-12: Post test left rear 3/4 view of test vehicle



Figure A-13: Pre test rear view of test vehicle



Figure A-14: Post test rear view of test vehicle



Figure A-15: Pre test right rear 3/4 view of test vehicle



Figure A-16: Post test right rear 3/4 view of test vehicle



Figure A-17: Pre test right side view of test vehicle



Figure A-18: Post test right side view of test vehicle



Figure A-19: Pre test right front 3/4 view of test vehicle



Figure A-20: Post test right front 3/4 view of test vehicle



Figure A-21: Pre test front left 3/4 side view of left side doors



Figure A-22: Post test left 3/4 view of left side doors



Figure A-23: Pre test rear left 3/4 side view of left side doors



Figure A-24: Post test rear left 3/4 side view of left side doors

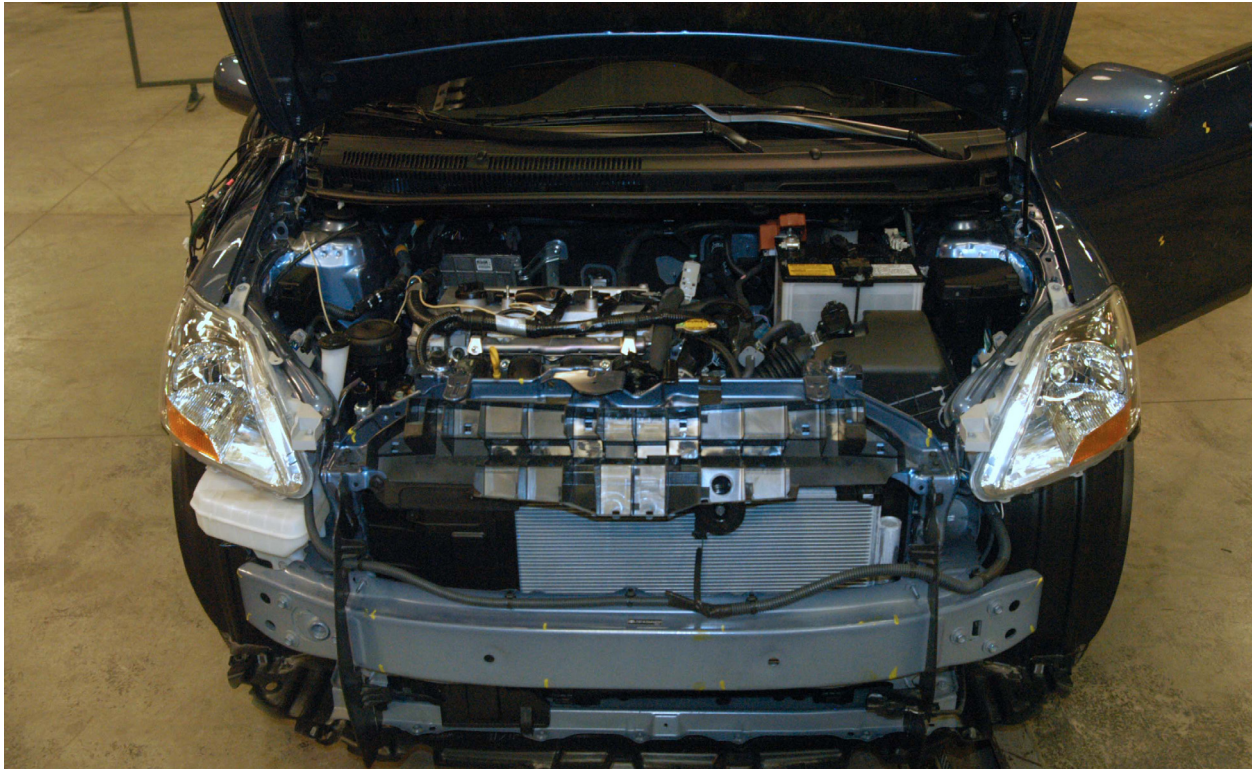


Figure A-25: Pre test engine compartment



Figure A-26: Post test engine compartment (hood could not be opened)



Figure A-27: Pre test fuel cap



Figure A-28: Post test fuel cap

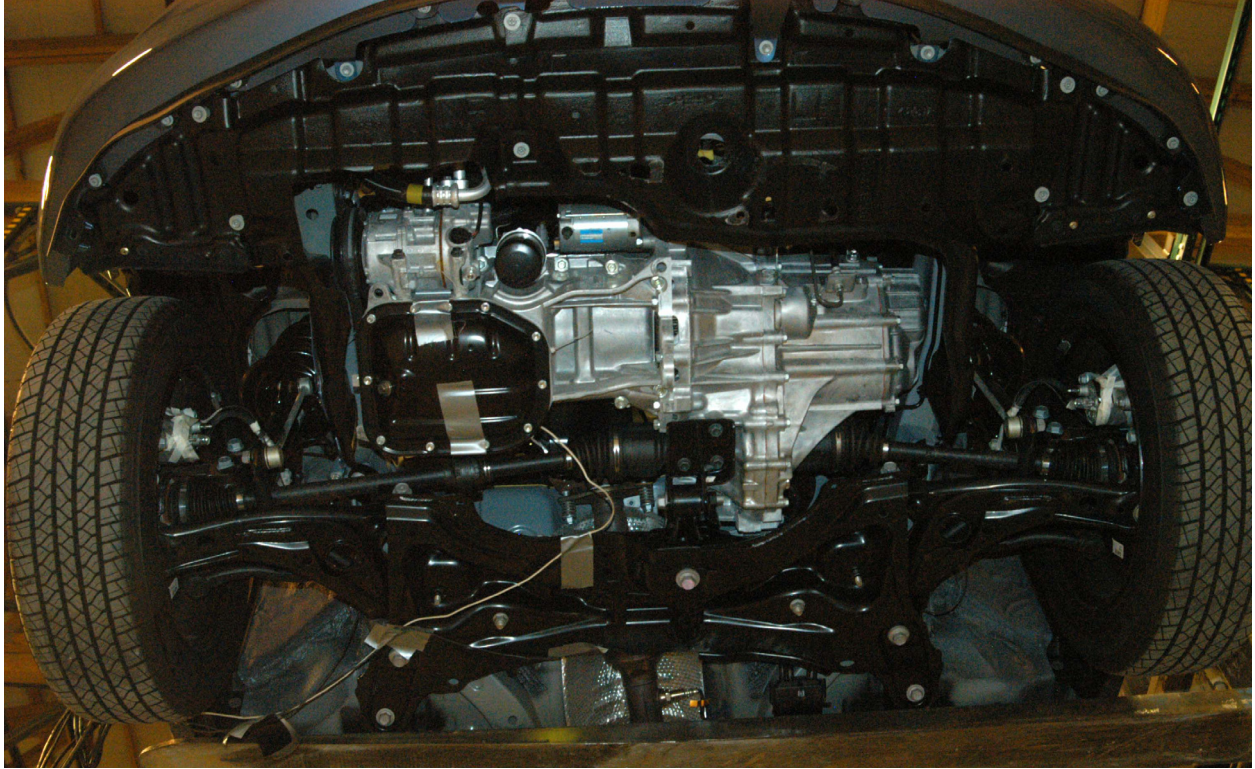


Figure A-29: Pre test front underbody

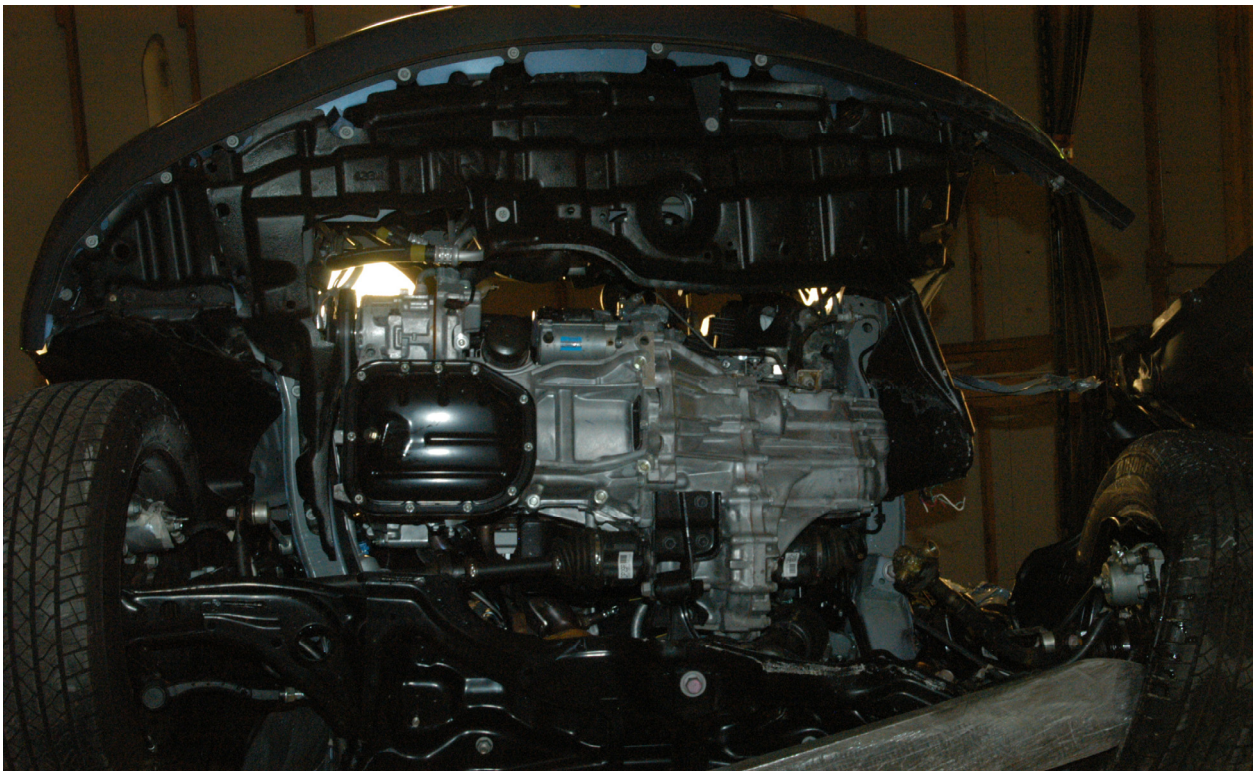


Figure A-30: Post test front underbody

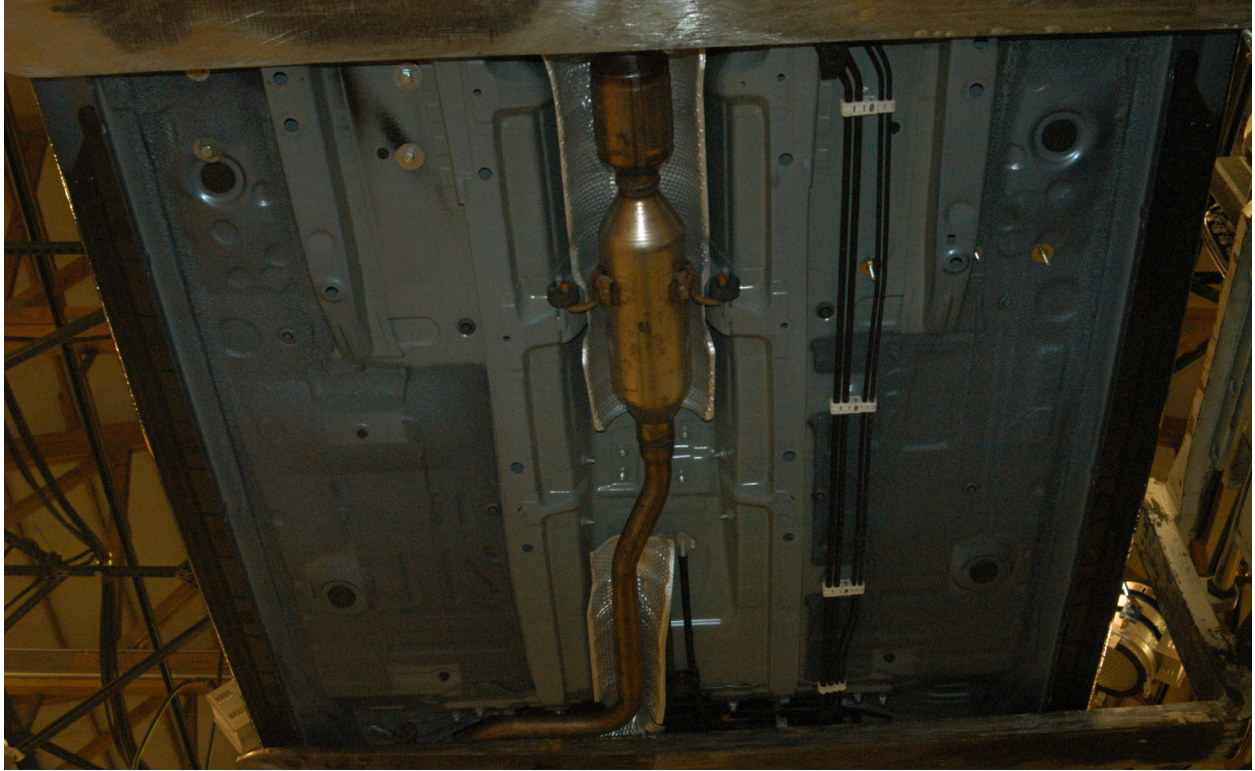


Figure A-31: Pre test mid-underbody

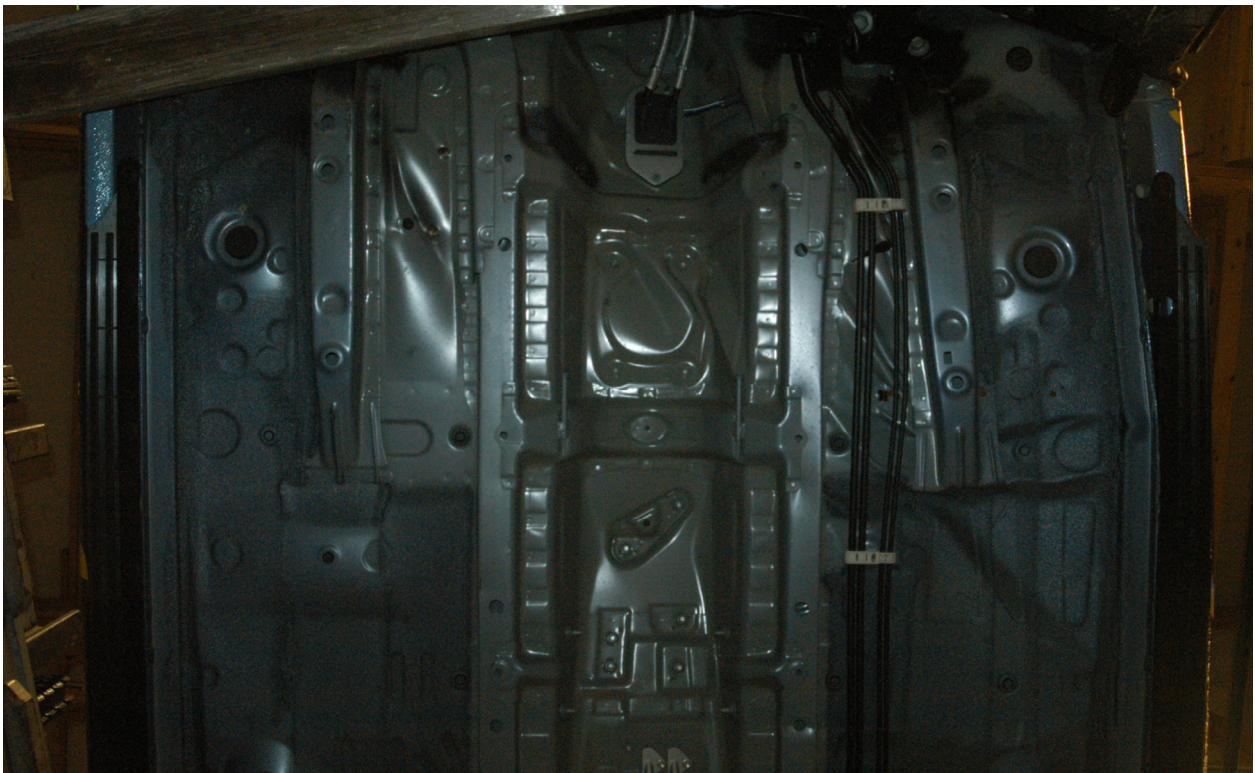


Figure A-32: Post test mid-underbody



Figure A-33: Pre test driver front



Figure A-34: Post test driver front



Figure A-35: Pre test driver through window



Figure A-36: Post test driver through window

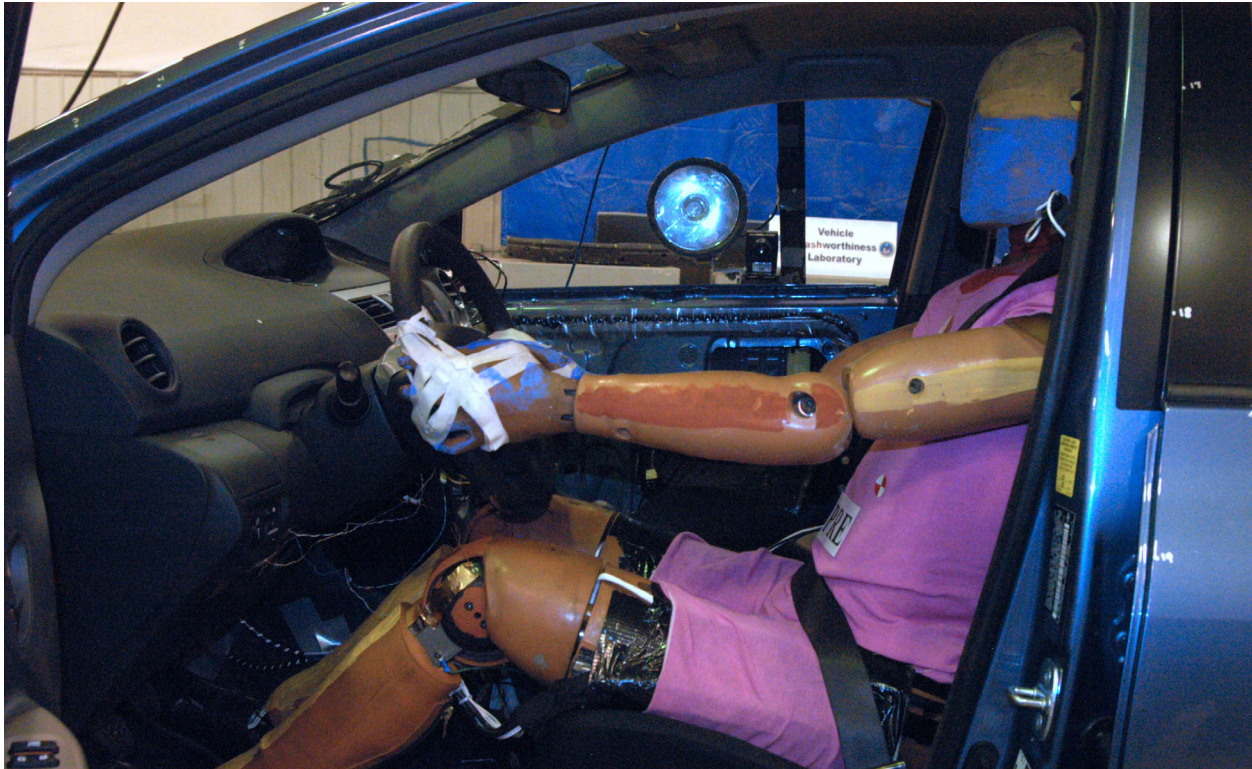


Figure A-37: Pre test driver (door open)



Figure A-38: Post test driver (door open)



Figure A-39: Pre test driver abdomen close-up



Figure A-40 Post test driver abdomen close-up



Figure A-41: Pre test driver feet



Figure A-42: Post test driver feet

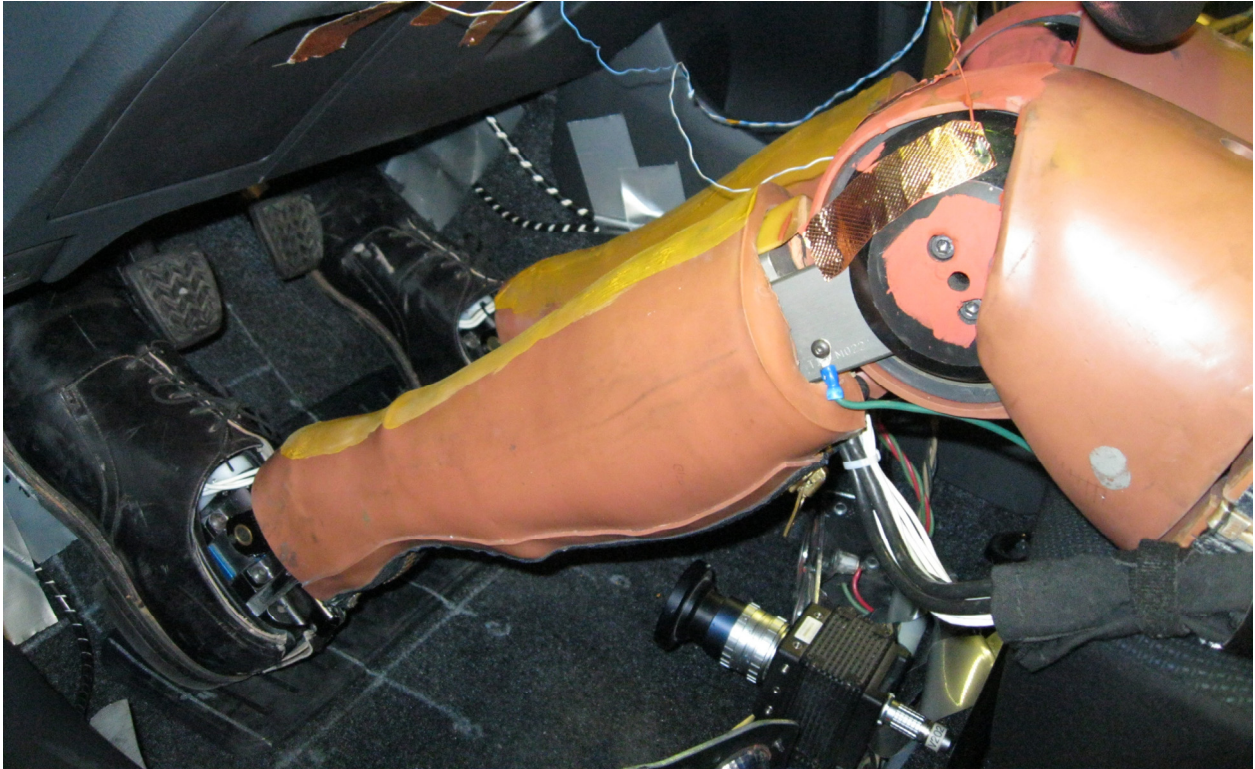


Figure A-43: Pre test driver foot/leg close-up



Figure A-44: Post test driver foot/leg close-up

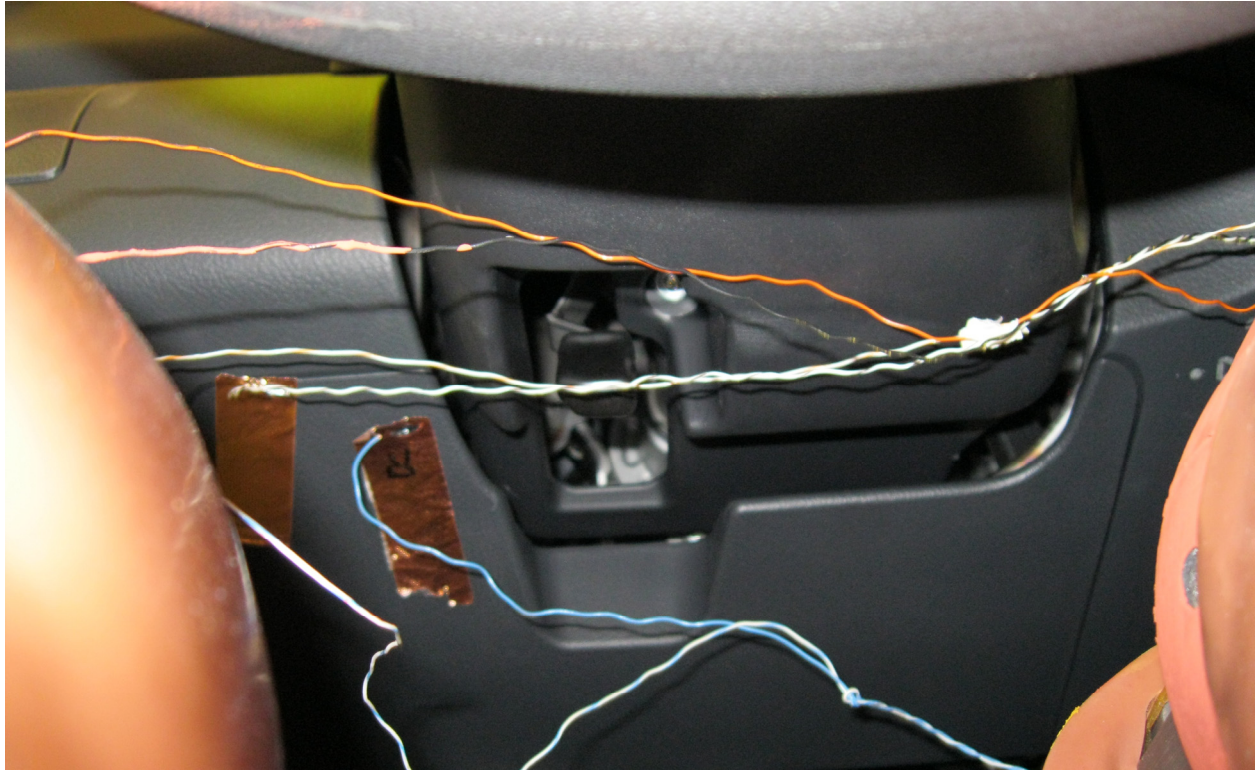


Figure A-45: Pre test driver knee bolster



Figure A-46: Post test driver knee bolster



Figure A-47: Pre test driver floor-pan



Figure A-48: Post test driver head contact



Figure A-49: Post test driver head contact (close up)



Figure A-50: Post test driver knee contact

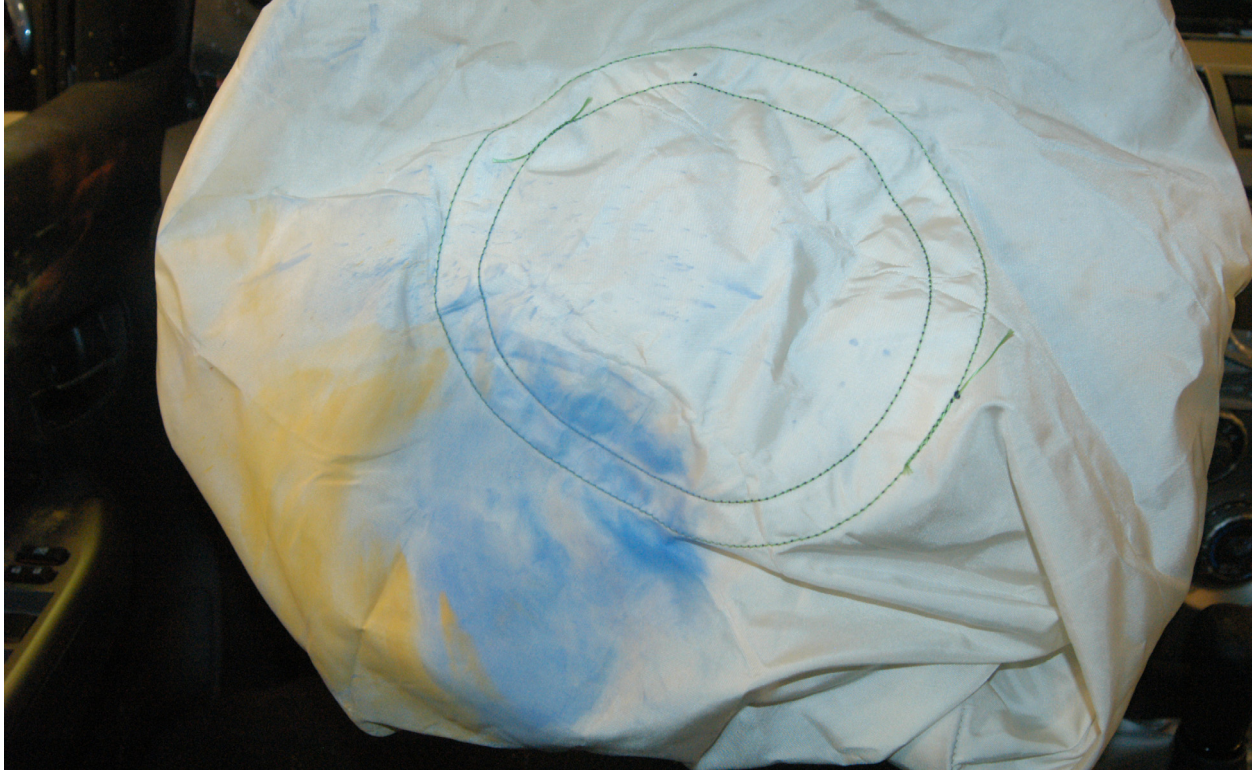


Figure A-51: Post test driver airbag contact



Figure A-52: Pre test passenger right

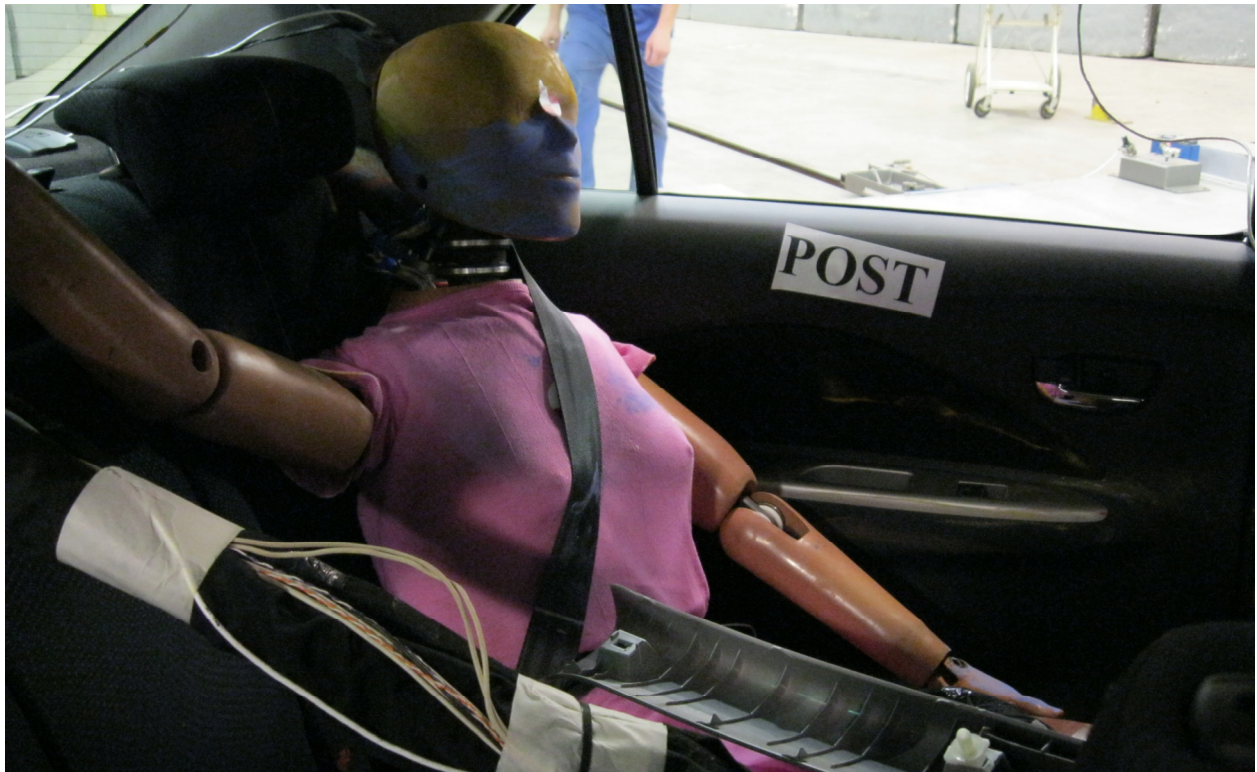


Figure A-53: Post test passenger right

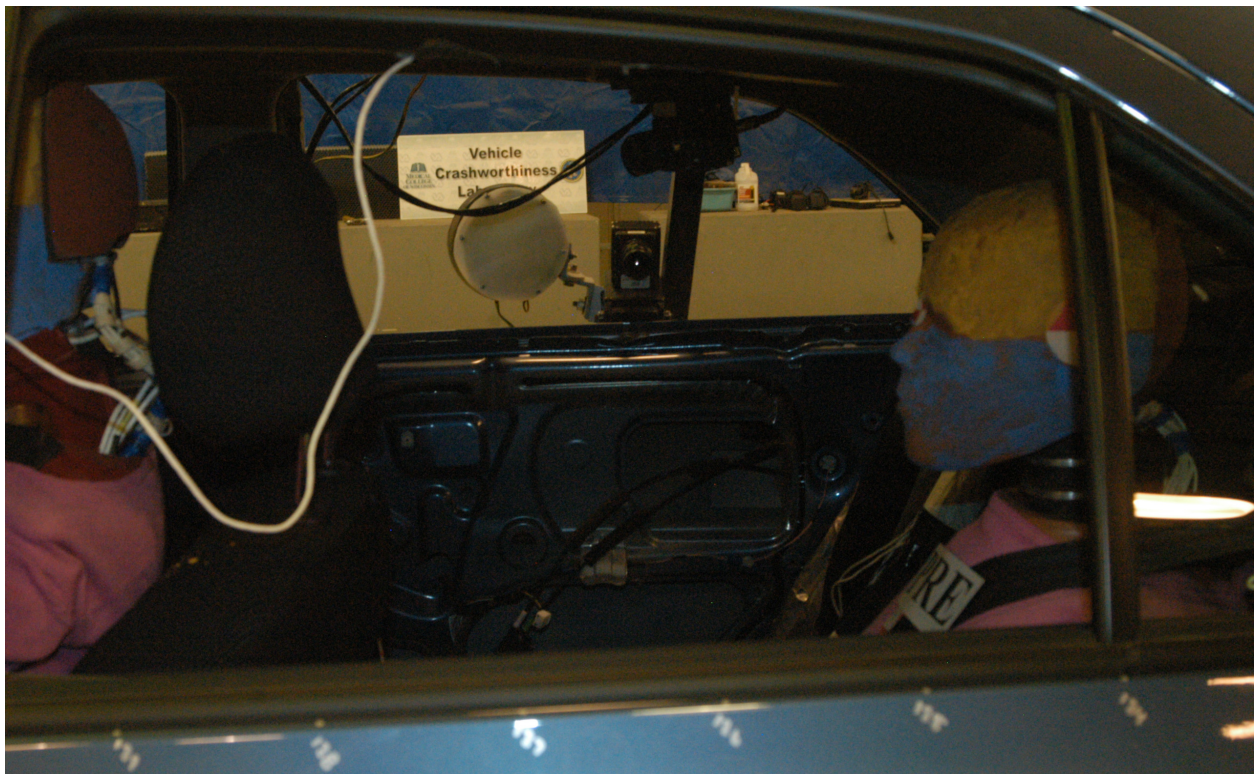


Figure A-54: Pre test passenger through window



Figure A-55: Post test passenger through window



Figure A-56: Pre test passenger door open

Figure A-57: Post test passenger door open - N/a



Figure A-58: Pre test passenger feet

Figure A-59: Post test passenger feet



Figure A-60: Pre test passenger foot/leg close-up

Figure A-61: Post test passenger foot/leg close-up



Figure A-62: Post test passenger head and side contact



Figure A-63: Post test passenger knee contact



Figure A-64: Impact



Figure A-65: FMVSS301 0 degrees

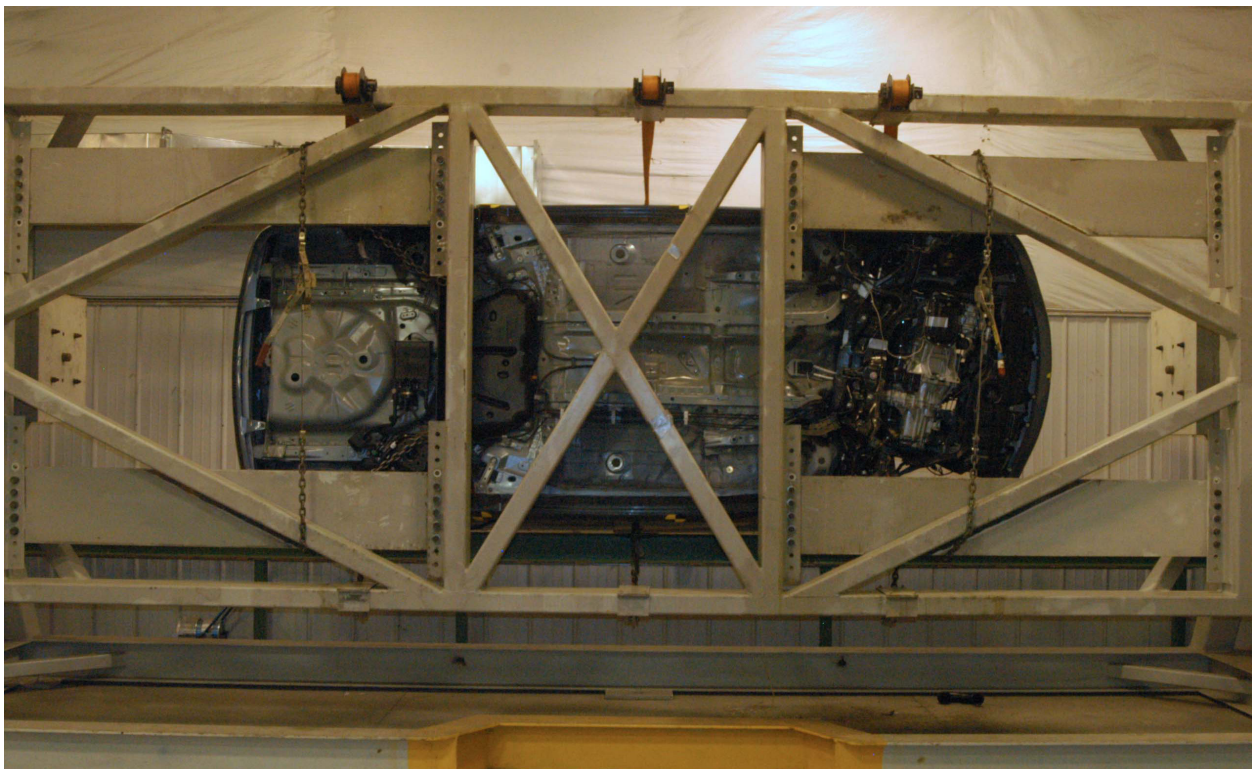


Figure A-66: FMVSS301 90 degrees

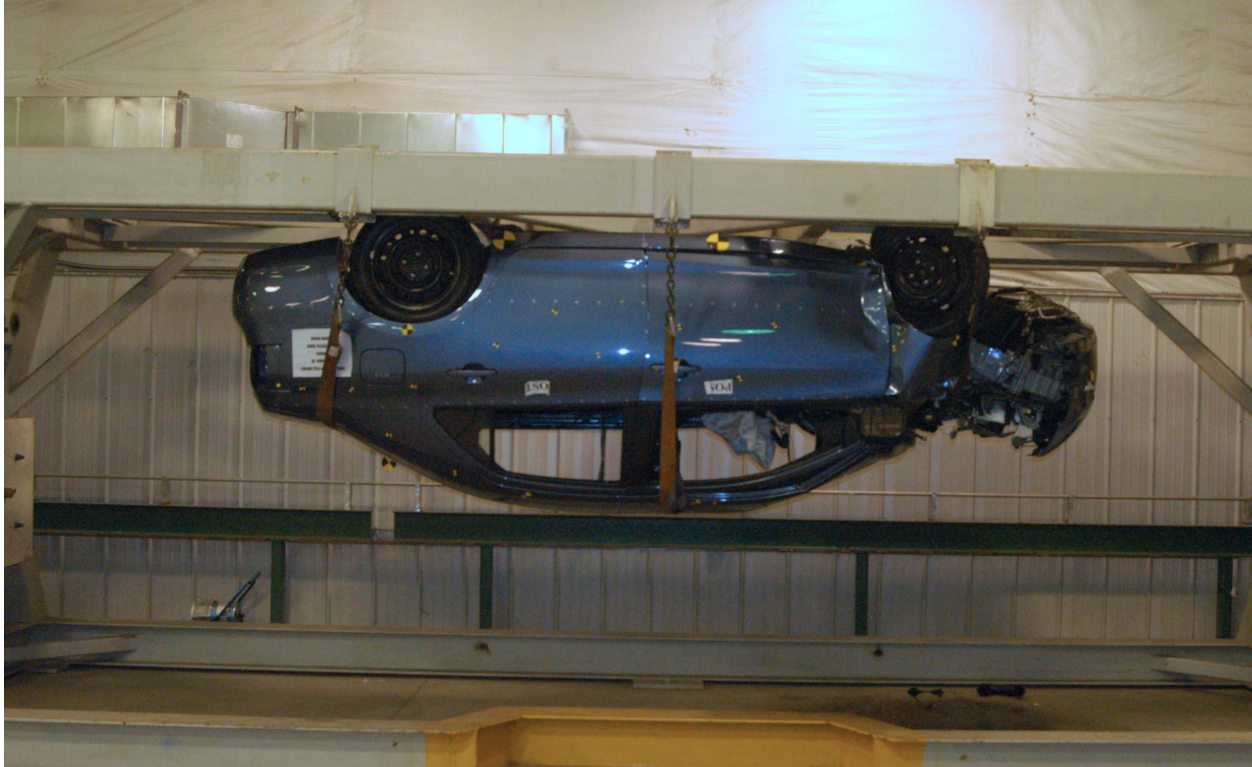


Figure A-67: FMVSS301 180 degrees



Figure A-68: FMVSS301 270 degrees



Figure A-69: FMVSS301 360 degrees

Test Vehicle: 2010 Toyota Yaris 4-Door Sedan
Test Program: Frontal Small Overlap

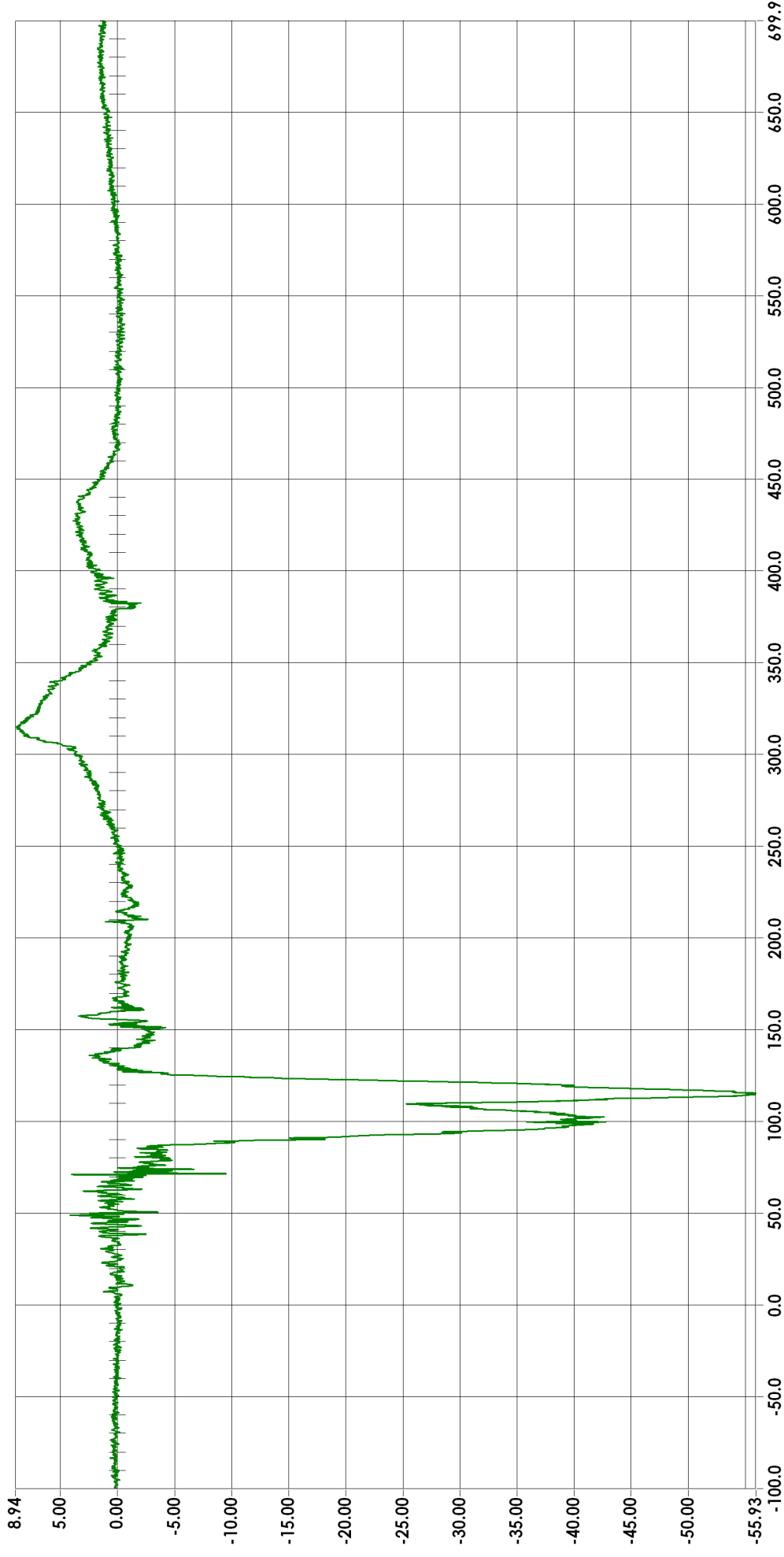
NHTSA Number: RA5133
Test Date: October 19, 2010

APPENDIX B

THOR/HIII – 5th PERCENTILE, VEHICLE AND POLE RESPONSE DATA

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HDCG
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P51885

Driver head cg (x) acceleration XL



Time (msec)

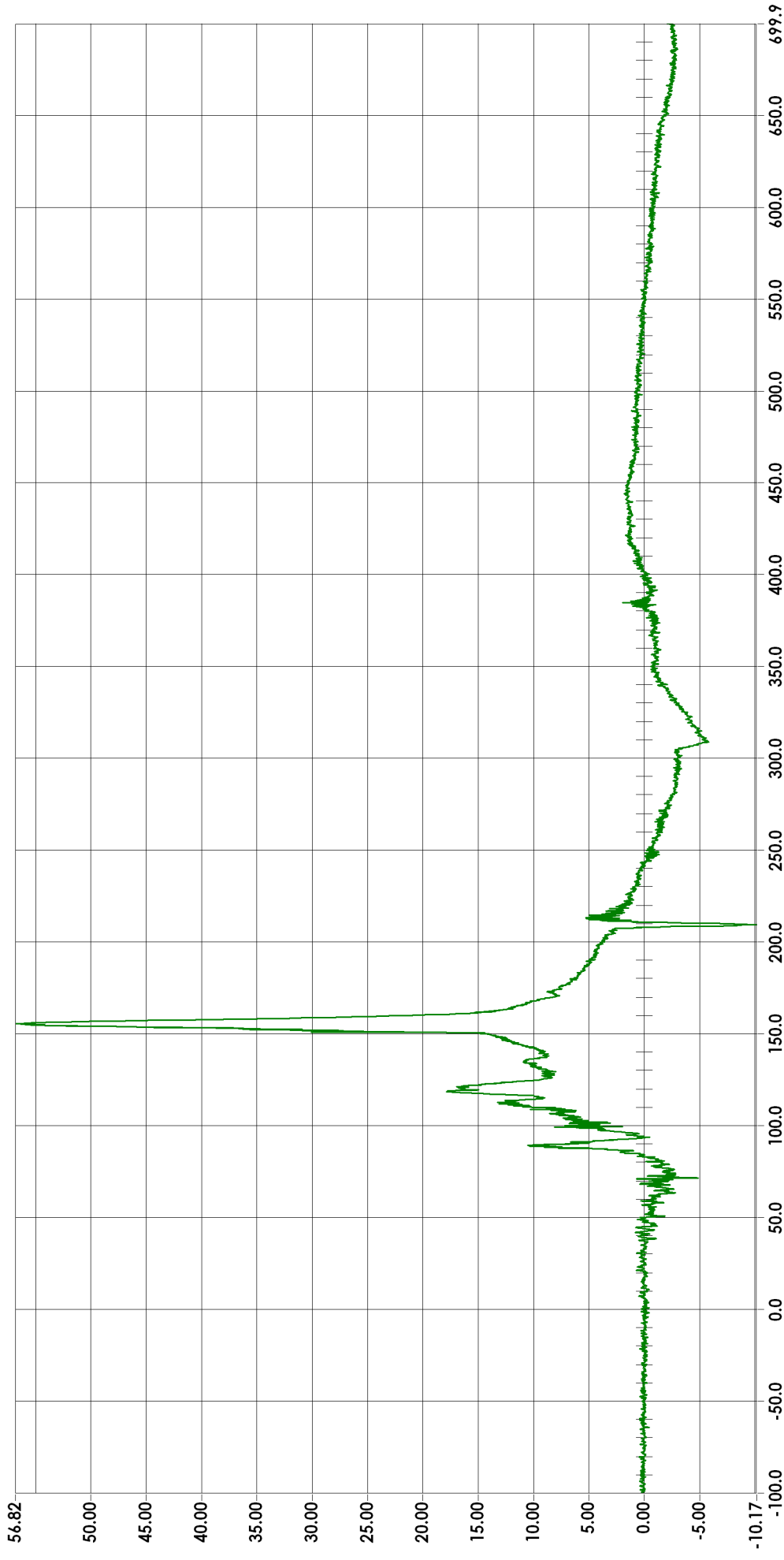
Max	8.94	G's	at	314.96	msec
Min	-55.93	G's	at	115.52	msec

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SOI004 Plot 001

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HDCG
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P52058

Driver head cg (y) acceleration YL



Time (msec)

Max	56.82	G's	at	155.44	msec
Min	-10.17	G's	at	209.44	msec

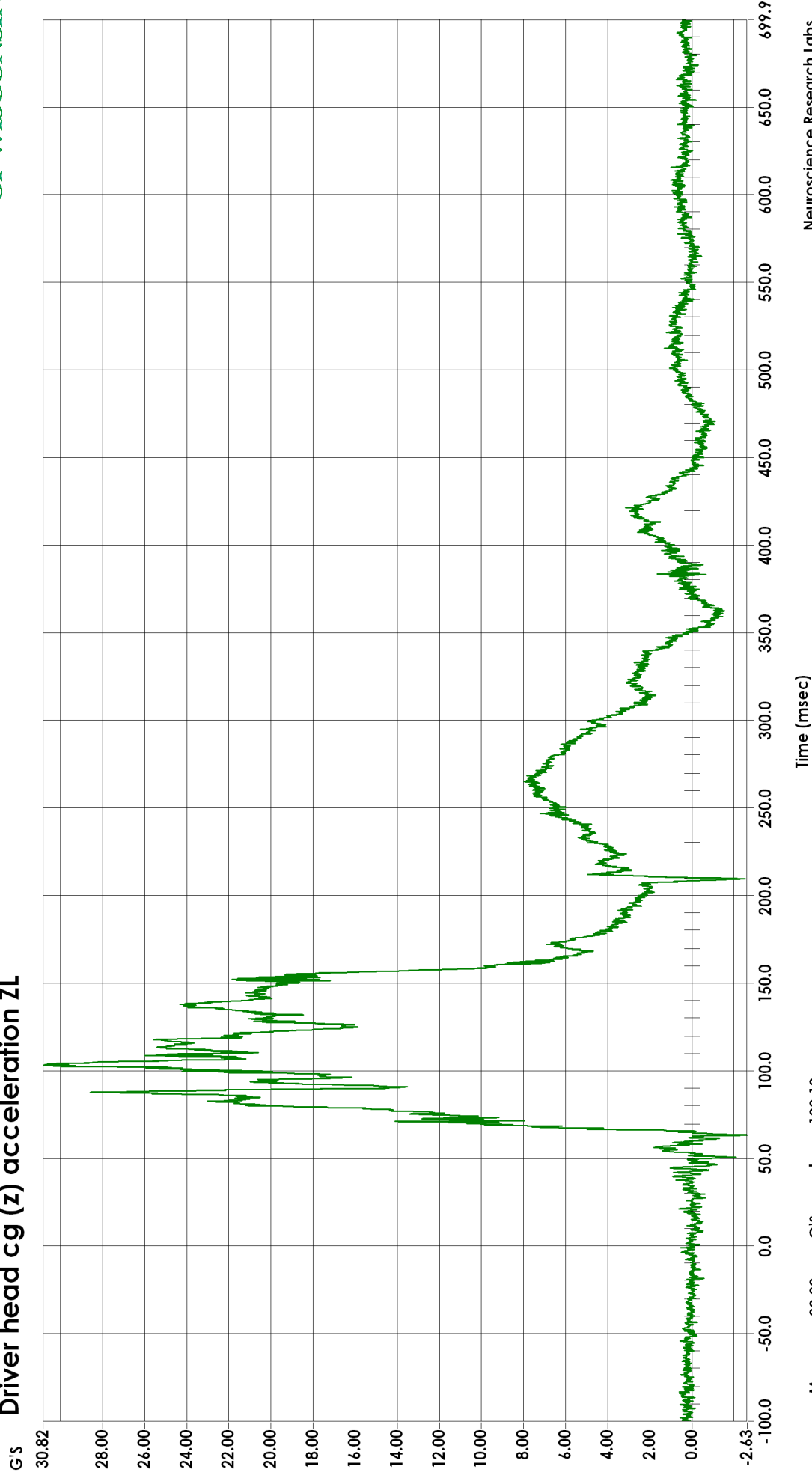
SOI004 Plot 002

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Test ID	SOI004	Filter	CFC1000	
Date	10-19-2010	Sampling Rate (Hz)	12500	
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	
		Pretrigger Points	1250	
		Sensor Location	HDCG	
		Sensor Info	ENTRAN ECEB6Q-2K	
		Serial Number	12105	

Driver head cg (z) acceleration ZL



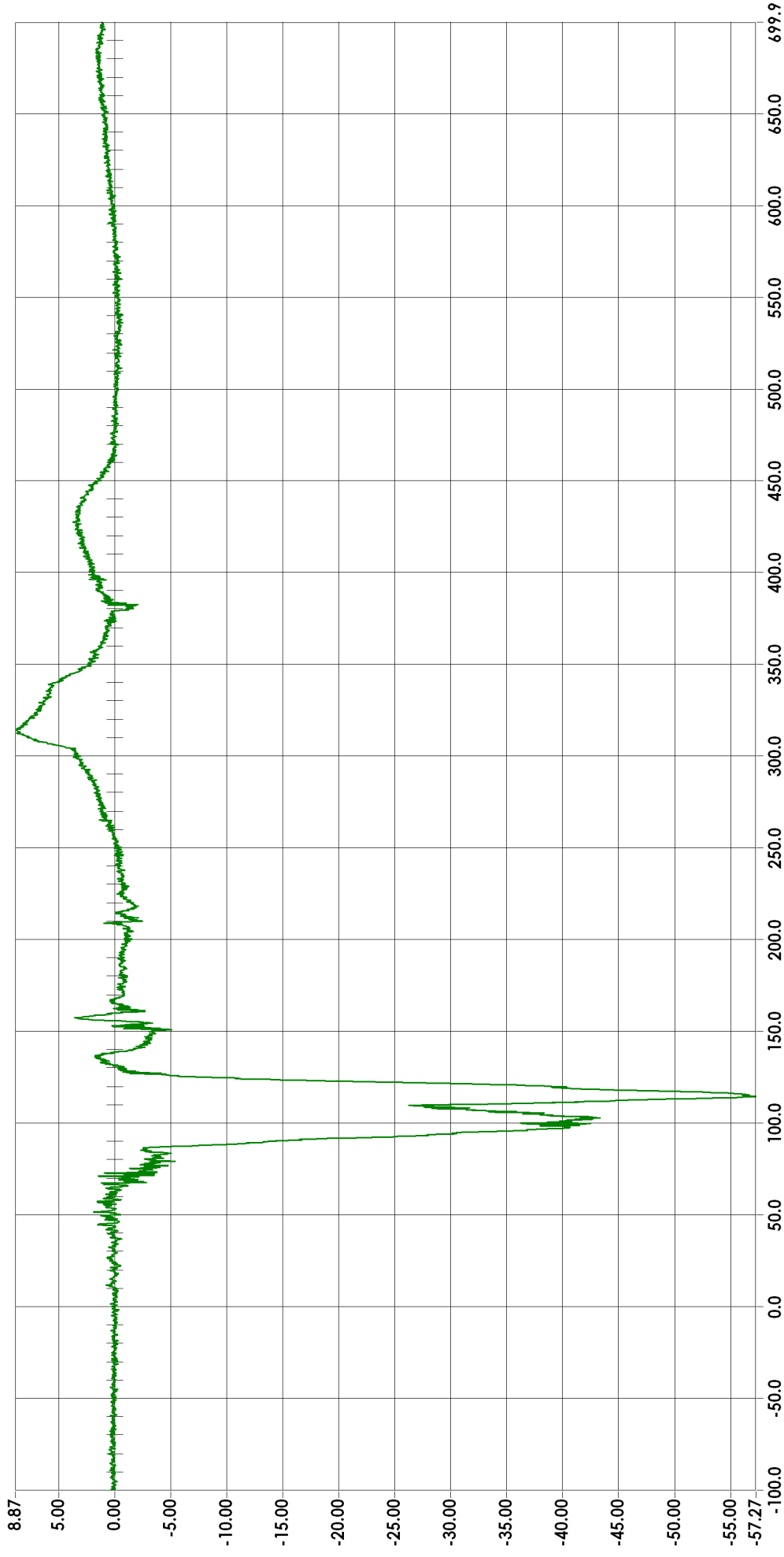
Max	30.82	G's	at	103.12	msec
Min	-2.63	G's	at	63.36	msec

SOI004 Plot 003

Neuroscience Research Labs
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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HDCG
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12100

Driver redundant head cg (x) acceleration XL



Max	8.87	G's	at	314.16	msec
Min	-57.27	G's	at	114.48	msec

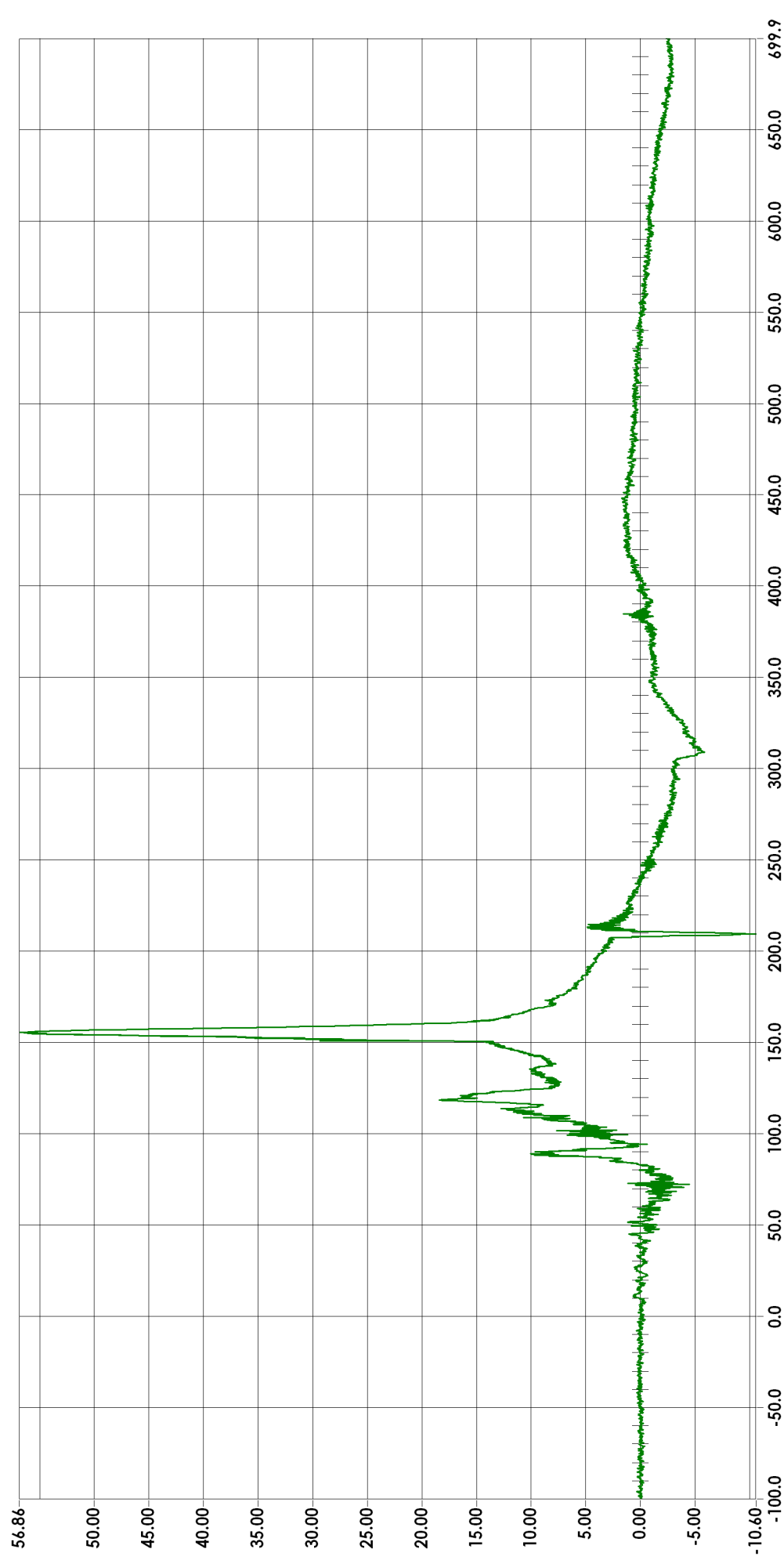
SOI004 Plot 004

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HDCG
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12120



G's Driver redundant head cg (y) acceleration YL



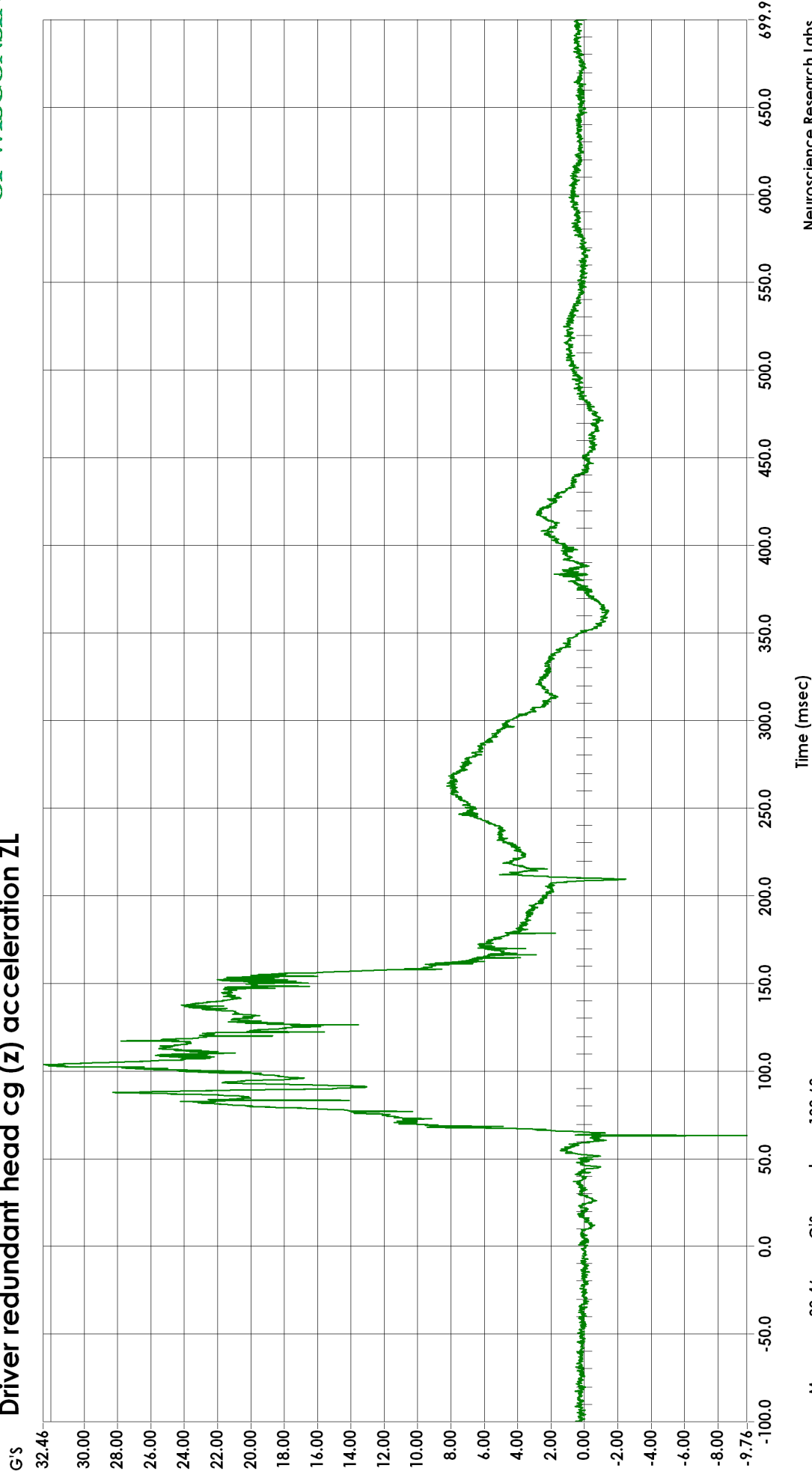
Max	56.86	G's	at	155.44	msec
Min	-10.60	G's	at	209.44	msec

SOI004 Plot 005

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Sensor Location	HDCG
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P12359
		Number of Points	10000
		Prefrigger Points	1250

Driver redundant head cg (z) acceleration ZL

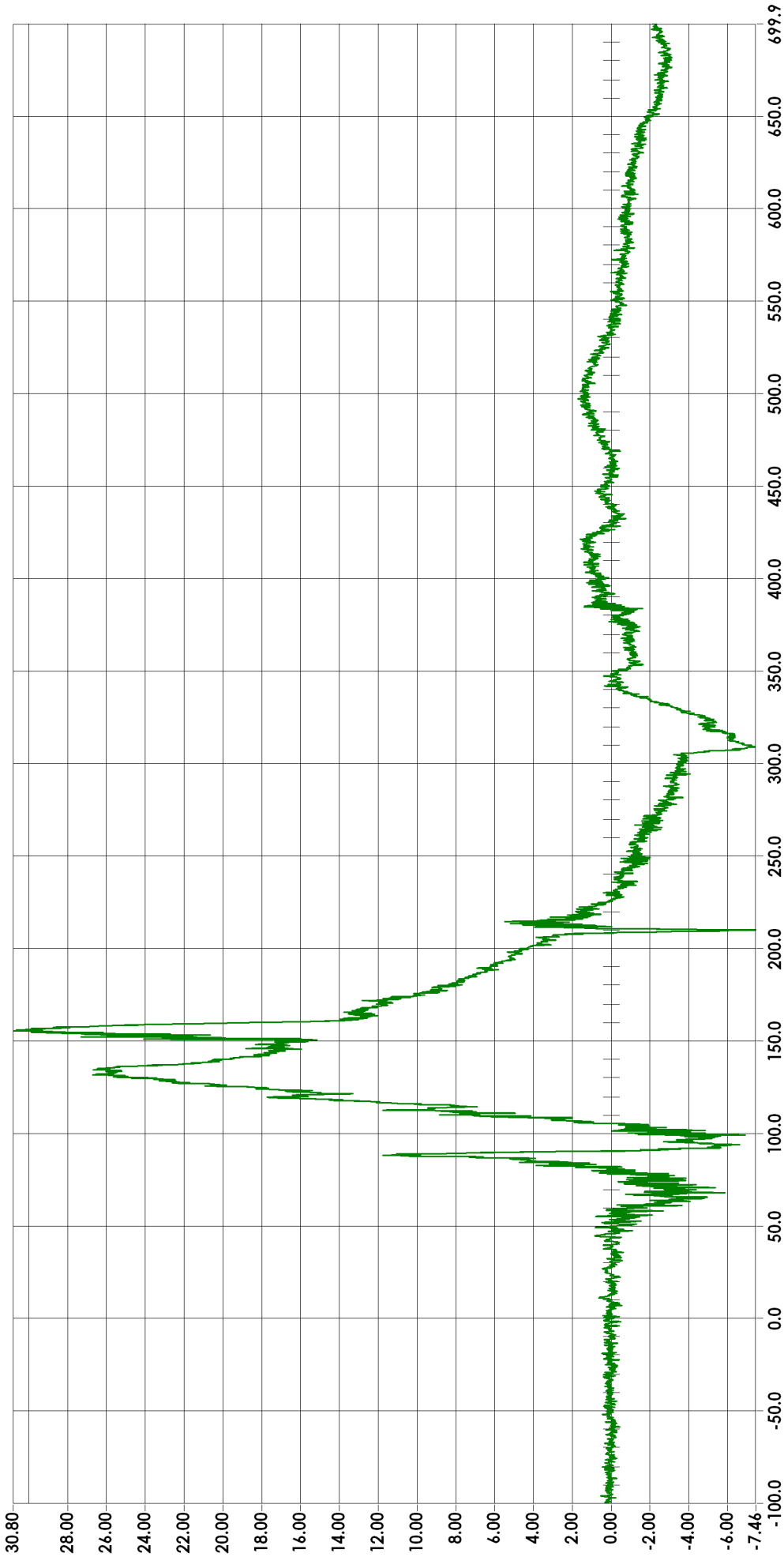


Max	32.46	G's	at	103.68	msec
Min	-9.76	G's	at	63.28	msec

SOI004 Plot 006

Test ID	SOI004	Filter	CFC1000		
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	HD9X
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	ENDEVCO 7264C-2000TZ
		Pretrigger Points	1250	Serial Number	P49200

Driver internal nap (x) arm (y) face acceleration YL

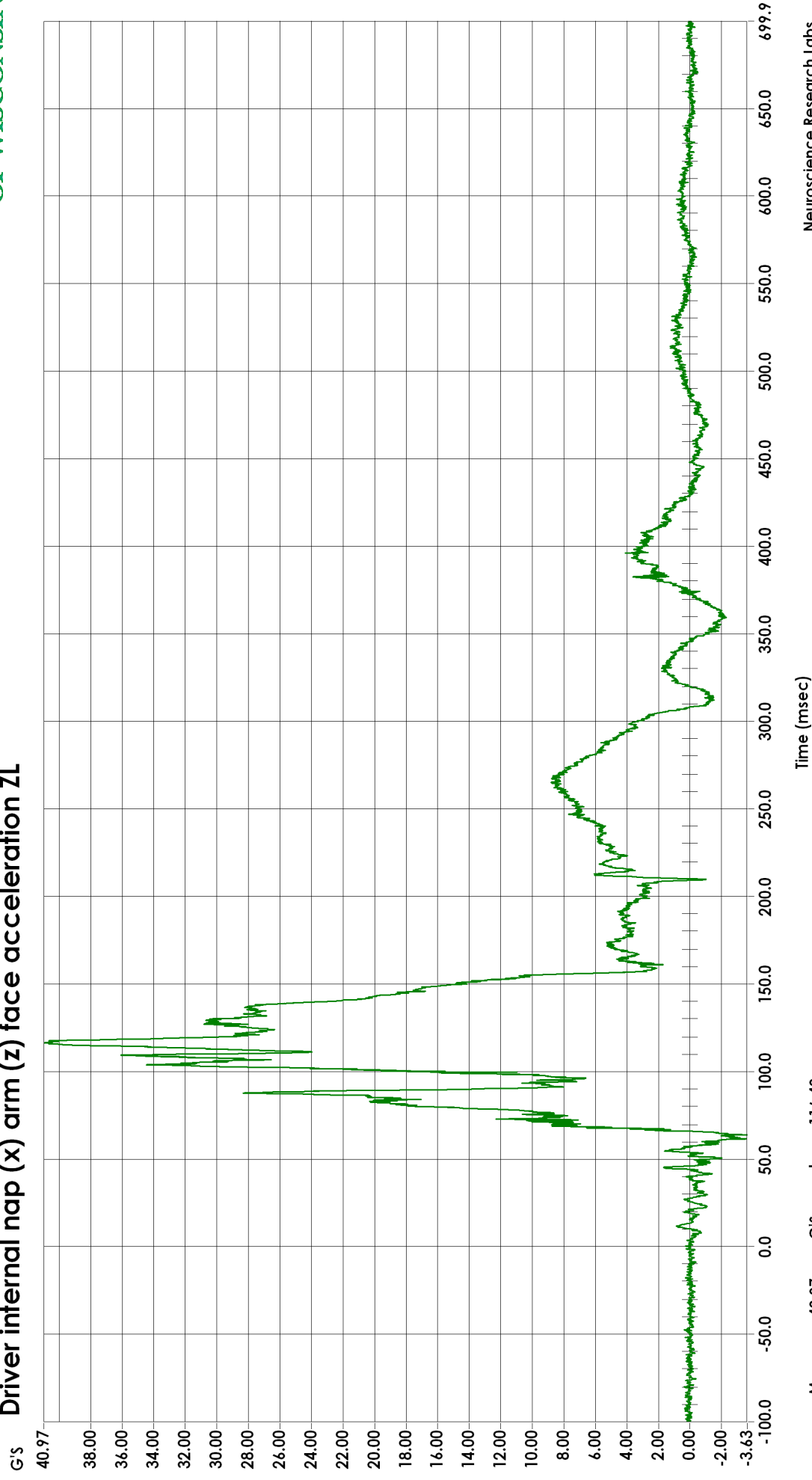


Max	30.80	G's	at	155.44	msec
Min	-7.46	G's	at	210.00	msec

Time (msec)

Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9X
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P49440

Driver internal nap (x) arm (z) face acceleration ZL

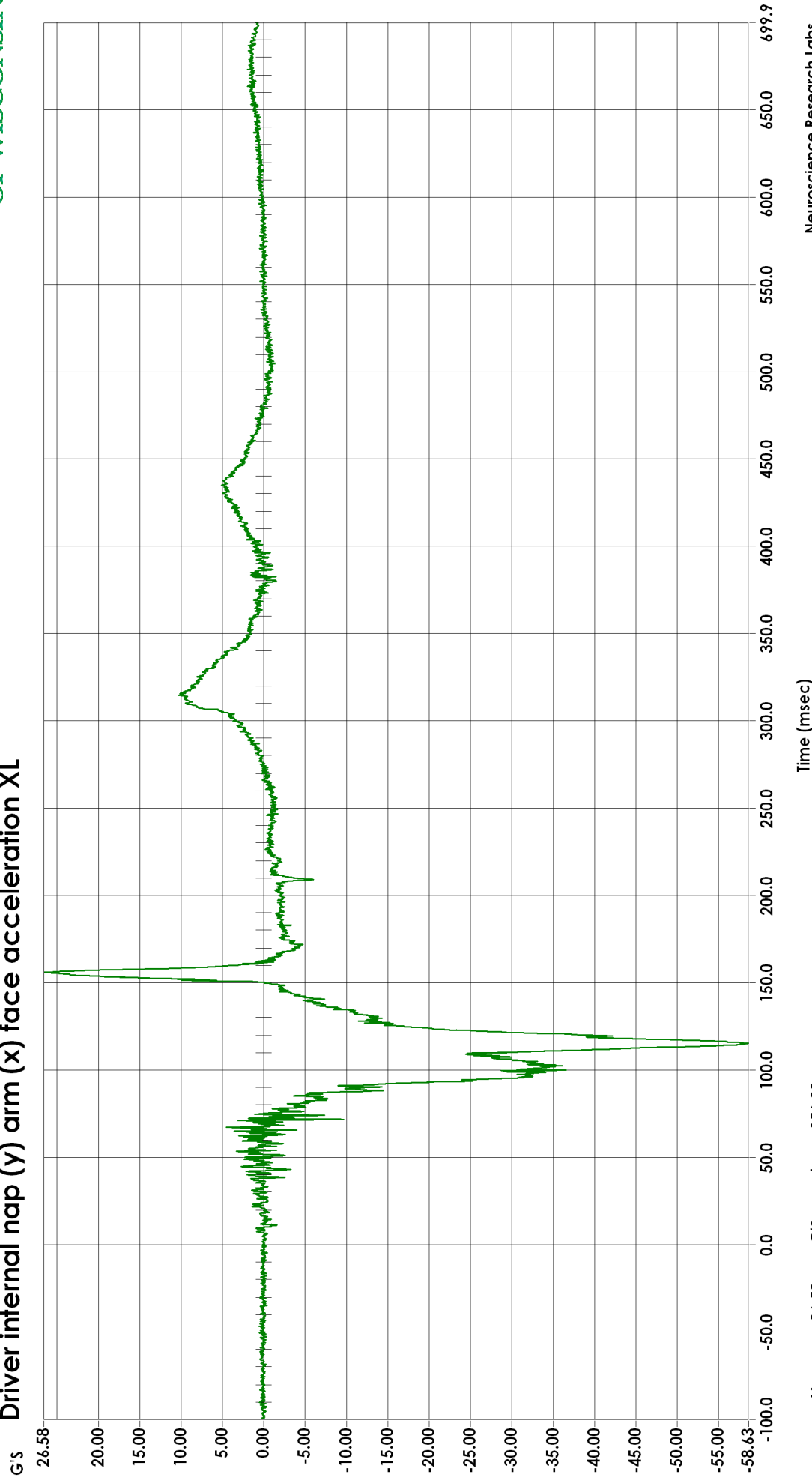


Max	40.97	G's	at	116.40	msec
Min	-3.63	G's	at	63.84	msec

SO1004 Plot 008

Test ID	SOI004	Filter	CFC1000		
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	HD9Y
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	ENDEVCO 7264C-2000TZ
		Pretrigger Points	1250	Serial Number	P50098

Driver internal nap (y) arm (x) face acceleration XL

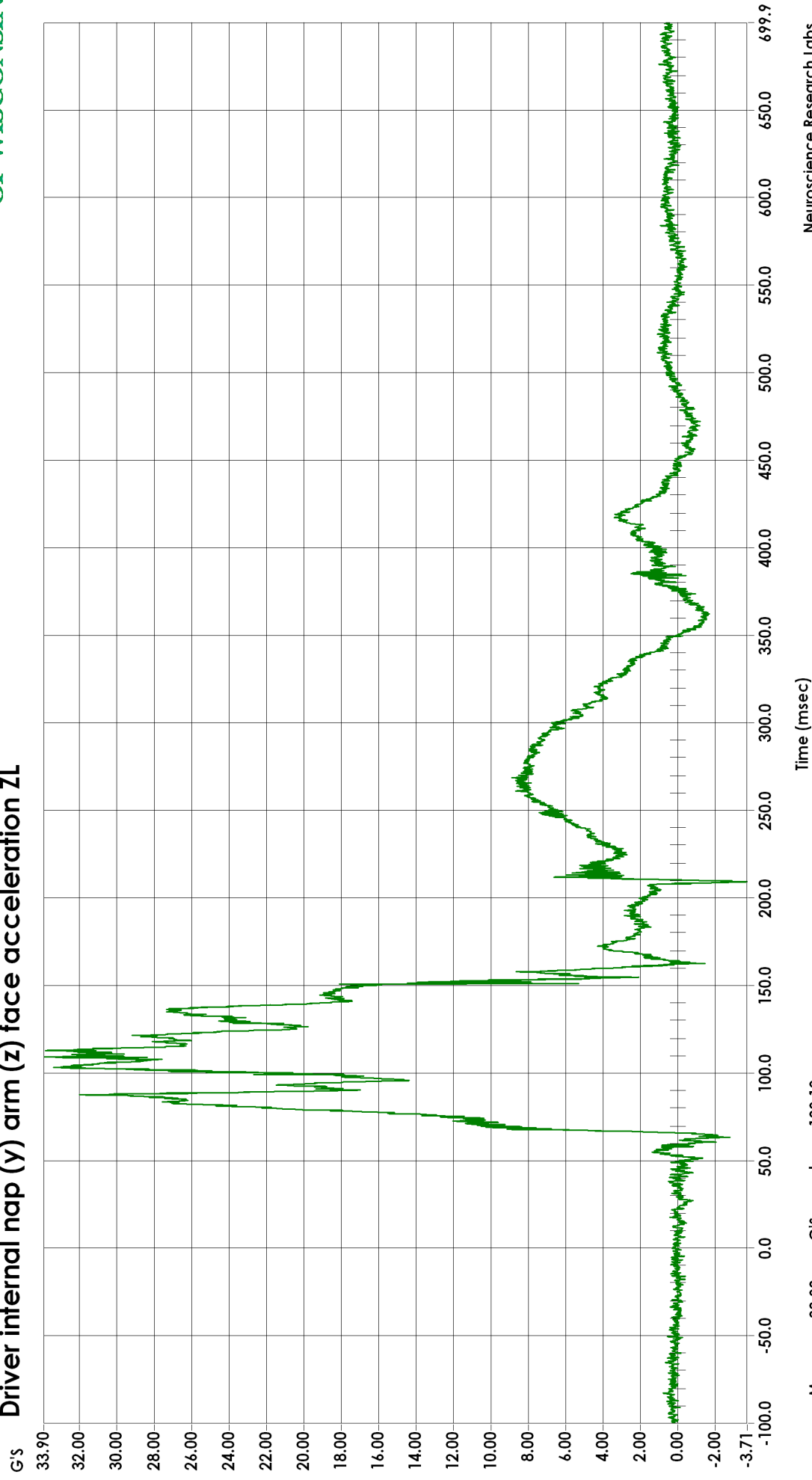


Max	26.58	G's	at	156.00	msec
Min	-58.63	G's	at	115.36	msec

SOI004 Plot 009

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9Y
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	12097

Driver internal nap (y) arm (z) face acceleration ZL

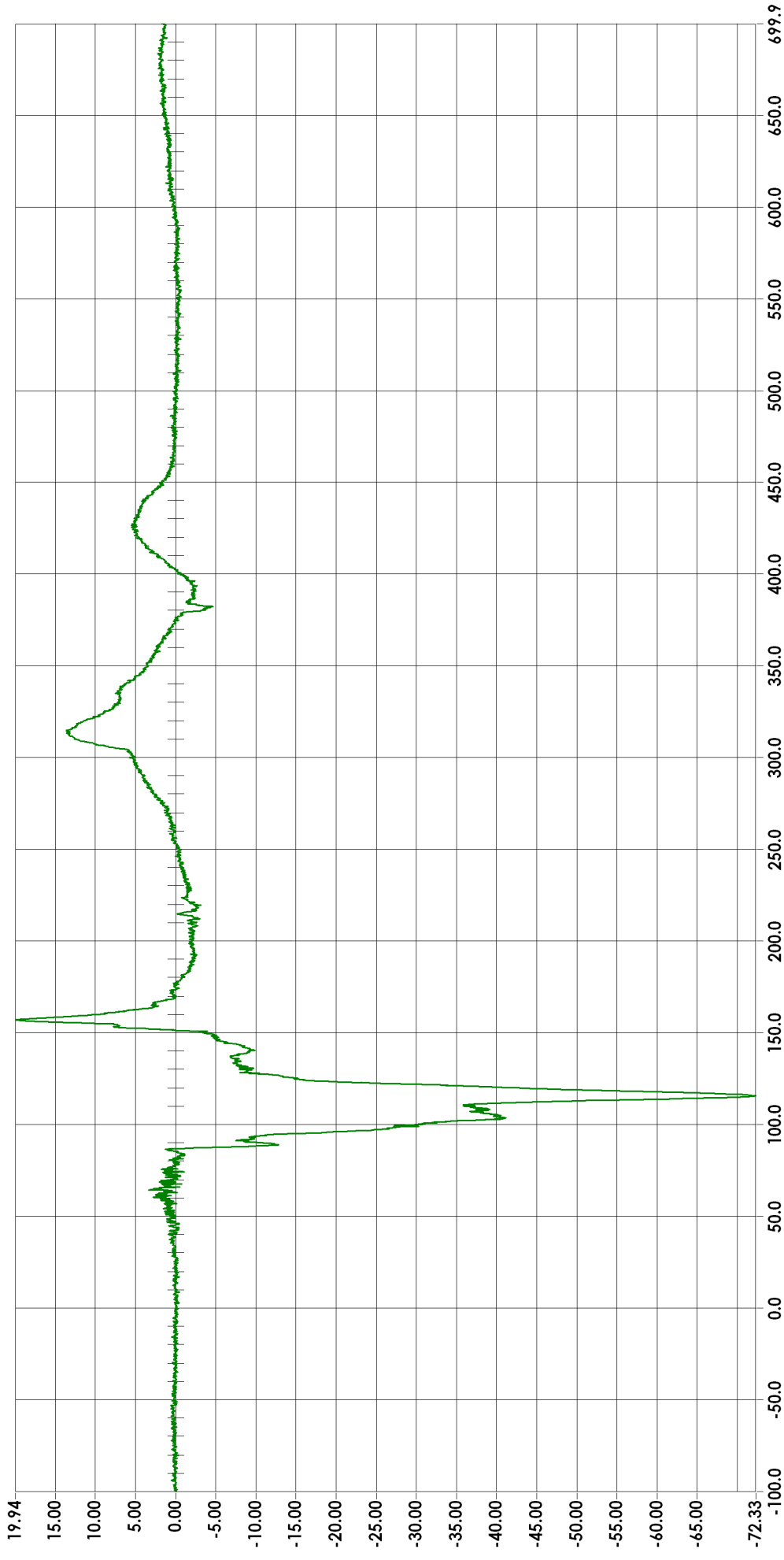


Max	33.90	G's	at	109.12	msec
Min	-3.71	G's	at	209.20	msec

SOI004 Plot 010

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9Z
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P52105

G's Driver internal nap (z) arm (x) face acceleration XL



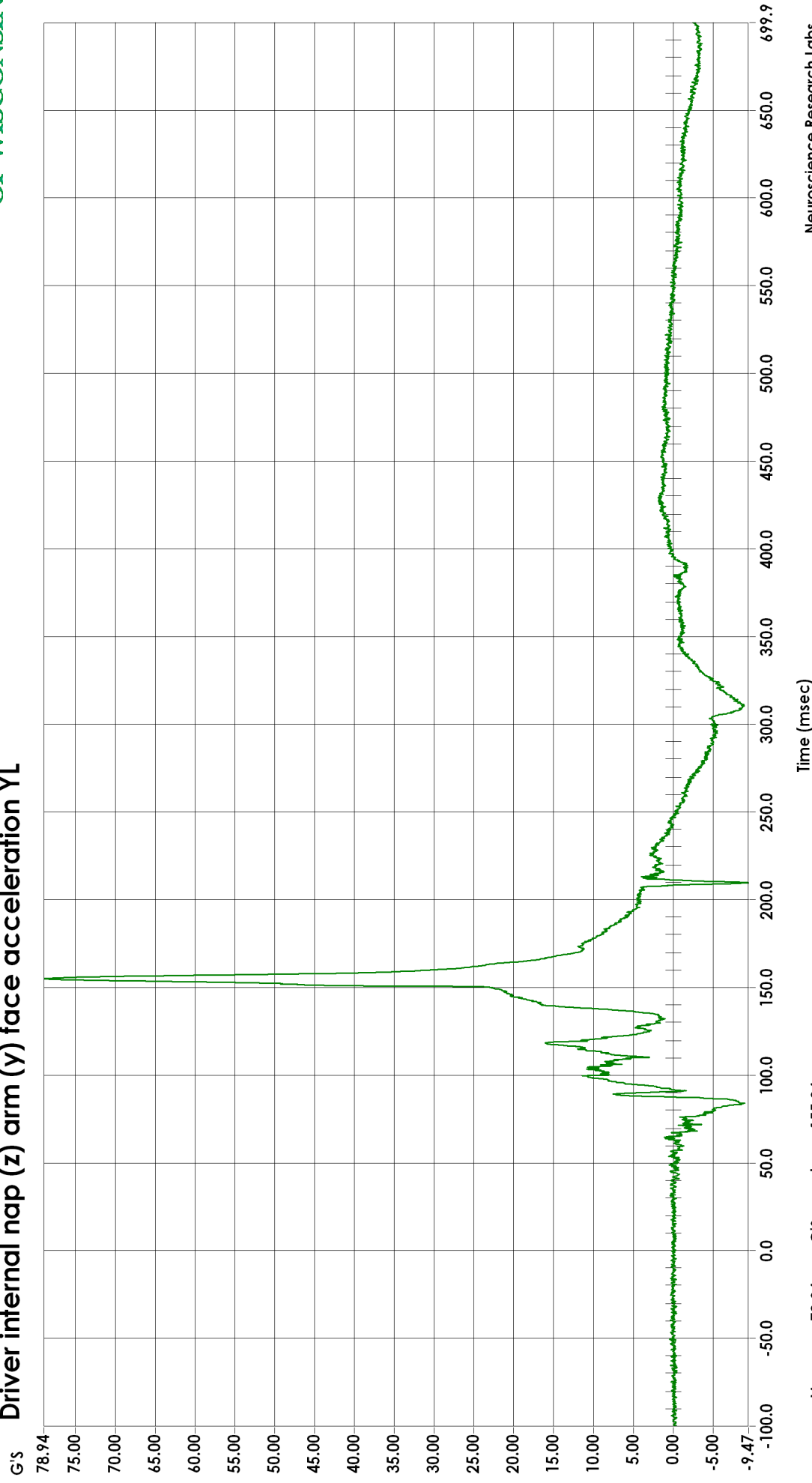
Time (msec)

Max	19.94	G's	at	157.12	msec
Min	-72.33	G's	at	115.68	msec

SOI004 Plot 011

Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9Z
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P51915

Driver internal nap (z) arm (y) face acceleration YL



Max	78.94	G's	at	155.04	msec
Min	-9.47	G's	at	209.68	msec

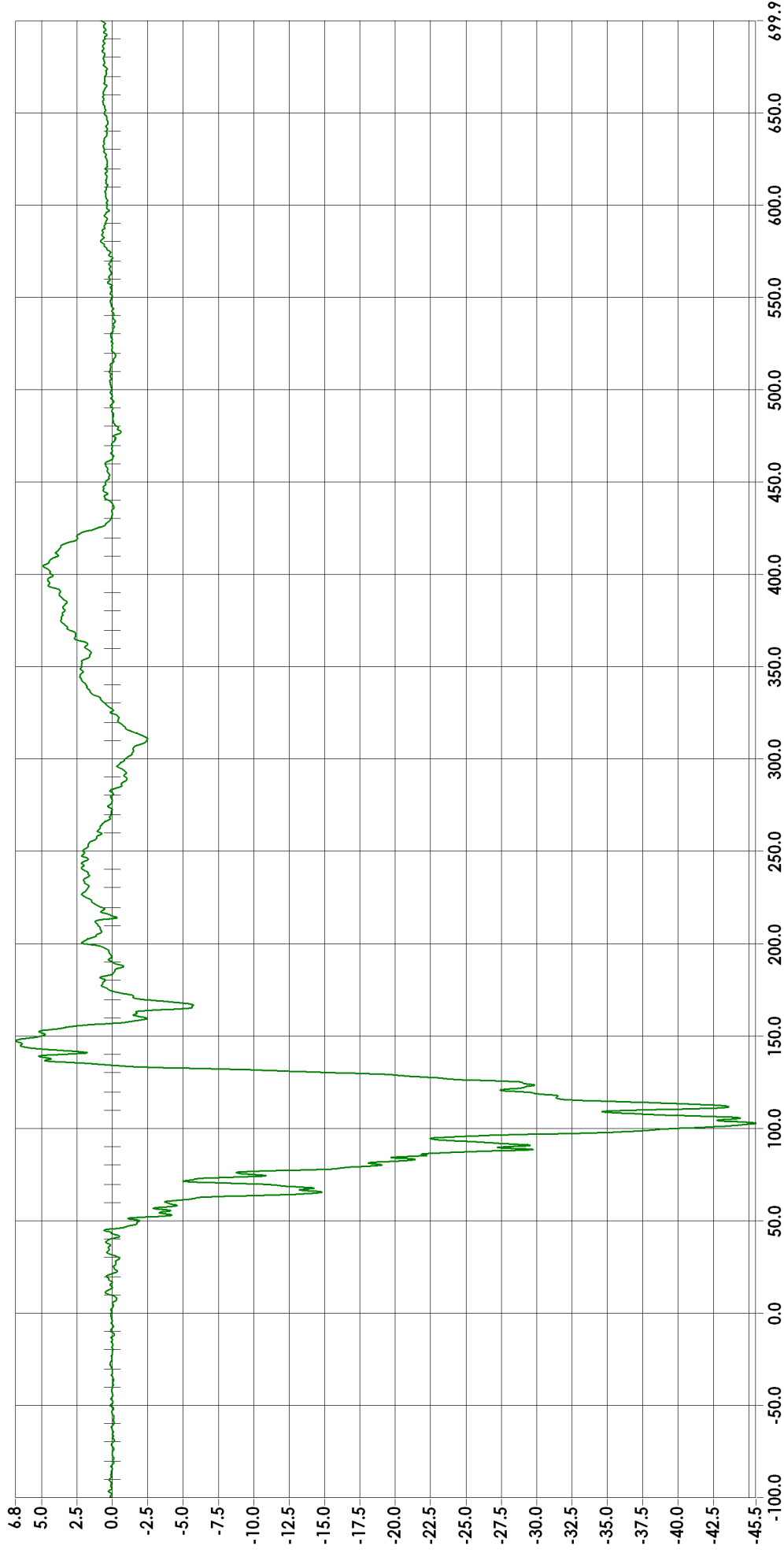
SO1004 Plot 012

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Test ID	SO1004	Filter	CFC180	Sensor Location	SPNU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P64006
		Prefrigger Points	1250		

Driver t1 (x) acceleration XL



Time (msec)

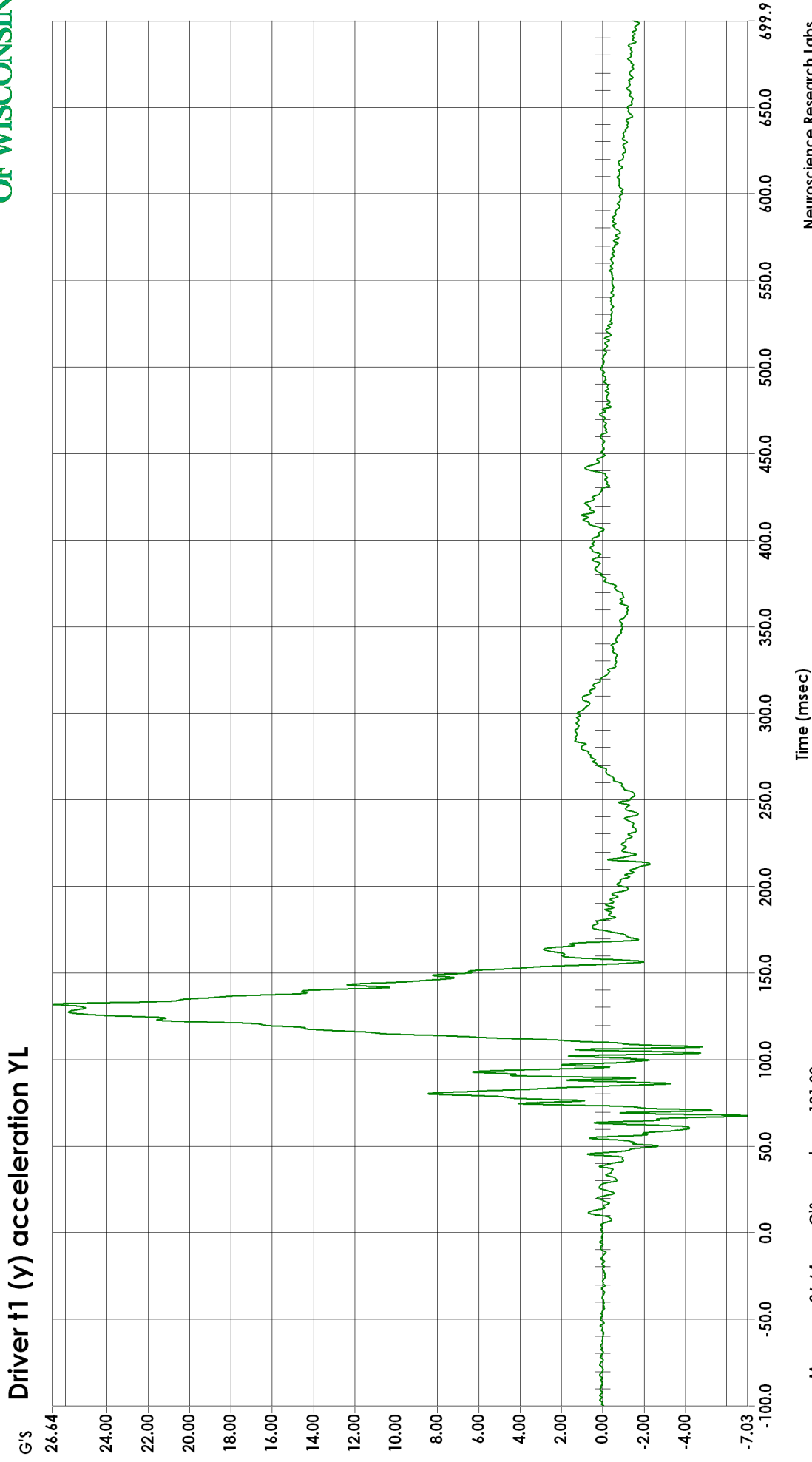
Max	6.85	G's	at	147.36	msec
Min	-45.51	G's	at	102.80	msec

SO1004 Plot 013

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Test ID	SOI004	Filter	CFC180	Sensor Location	SPNU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P64005
		Pretrigger Points	1250		

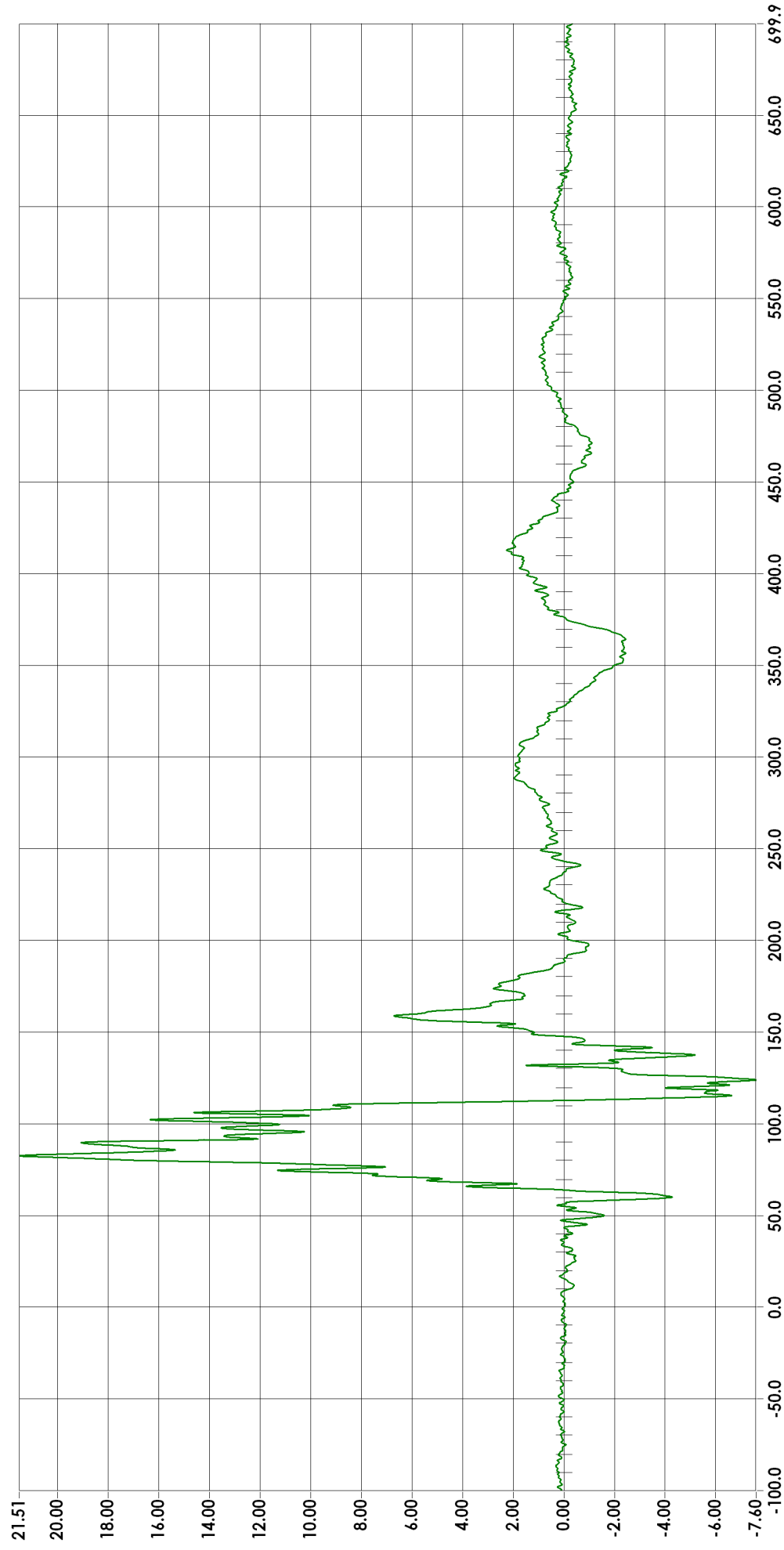


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Test ID	SOI004	Filter	CFC180	Sensor Location	SPNU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P64003
		Prefrigger Points	1250		

Driver t1 (z) acceleration ZL



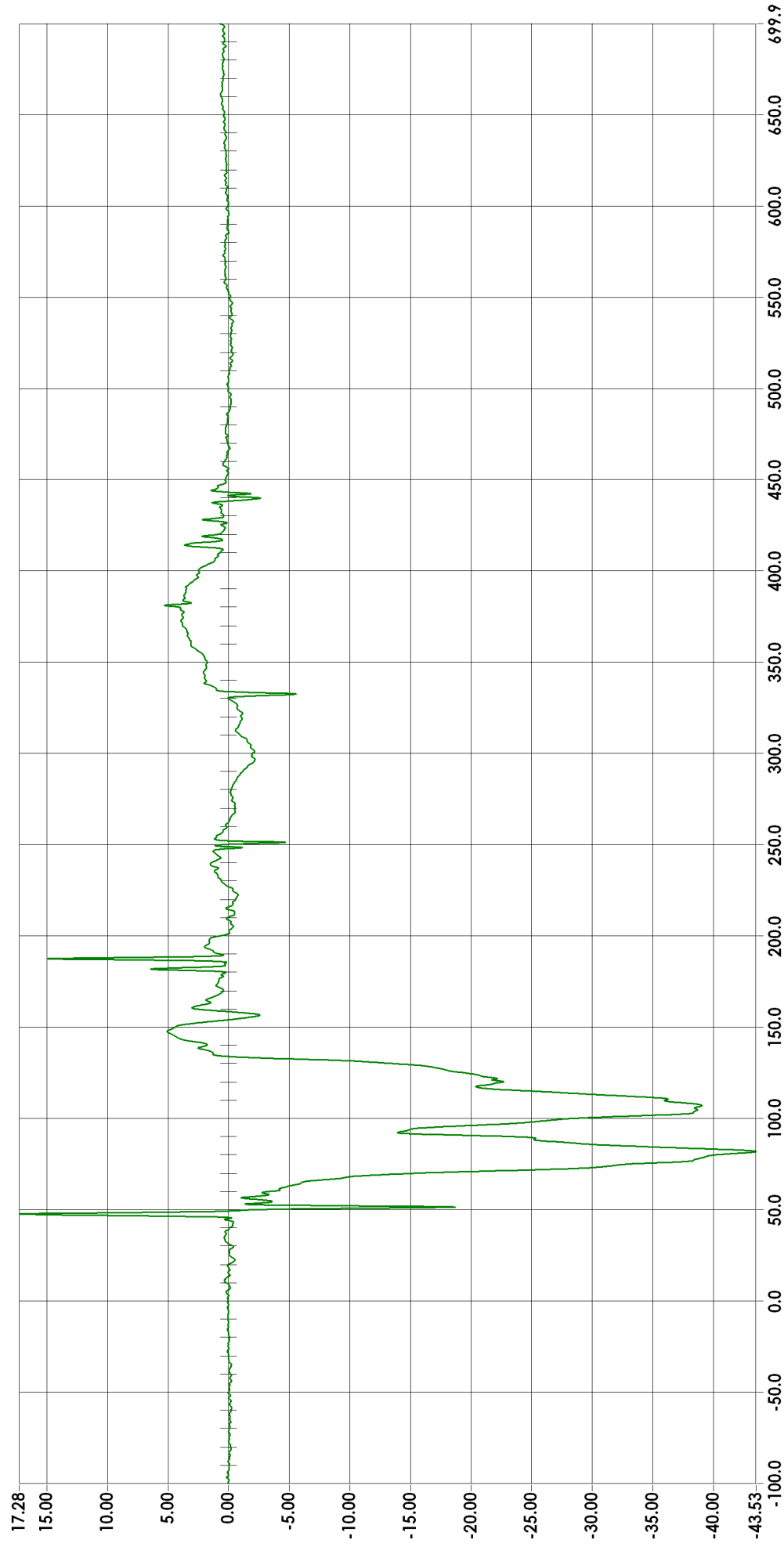
Time (msec)

Max	21.51	G's	at	82.56	msec
Min	-7.60	G's	at	123.92	msec

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Test ID	SO1004	Filter	CFC180	Sensor Location	SPNM
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P63990
		Prefrigger Points	1250		

G's Driver t4 (x) acceleration XL



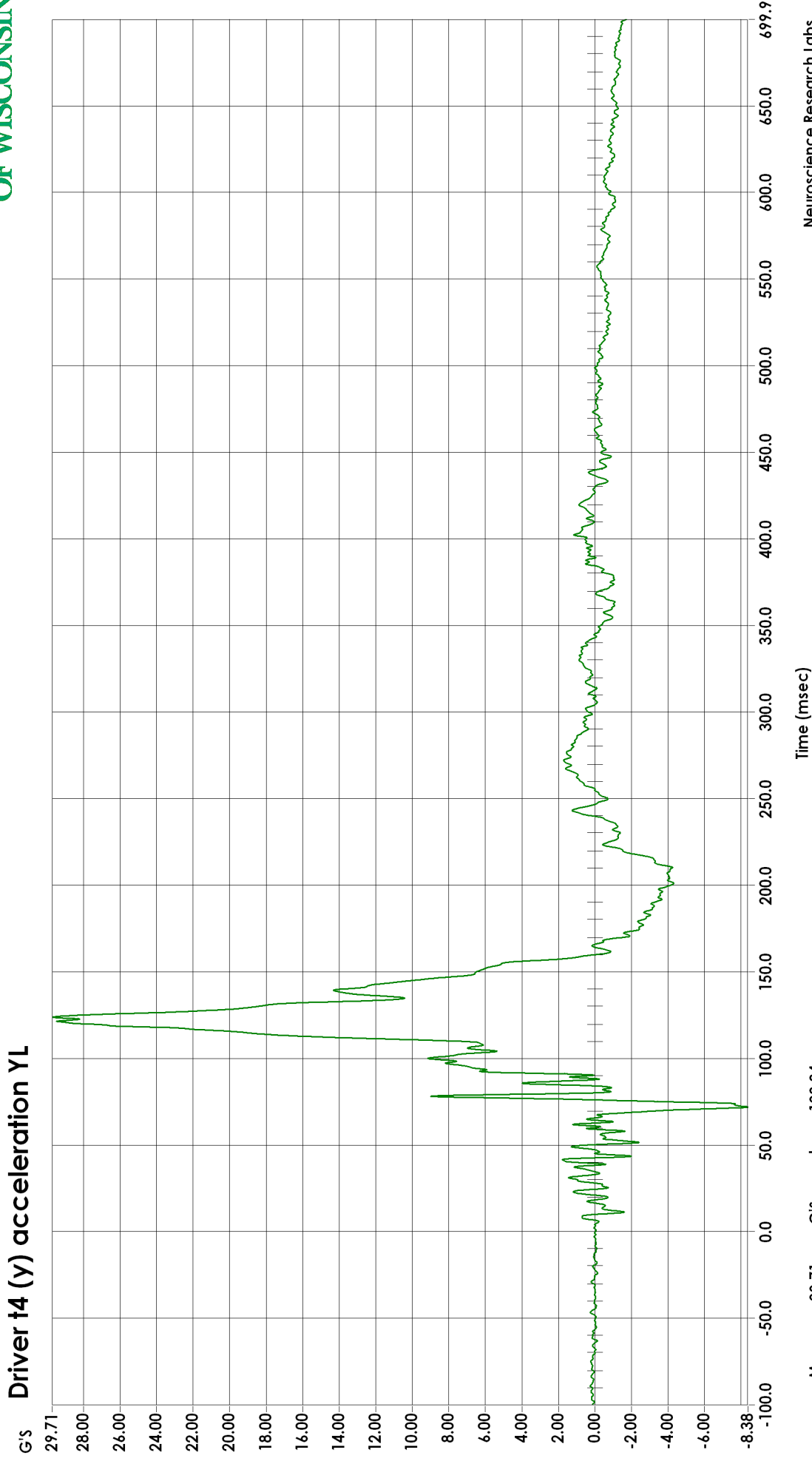
Time (msec)

Max	17.28	G's	at	47.68	msec
Min	-43.53	G's	at	81.92	msec

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Test ID	SOI004	Filter	CFC180	Sensor Location	SPNM
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P64000
		Pretrigger Points	1250		



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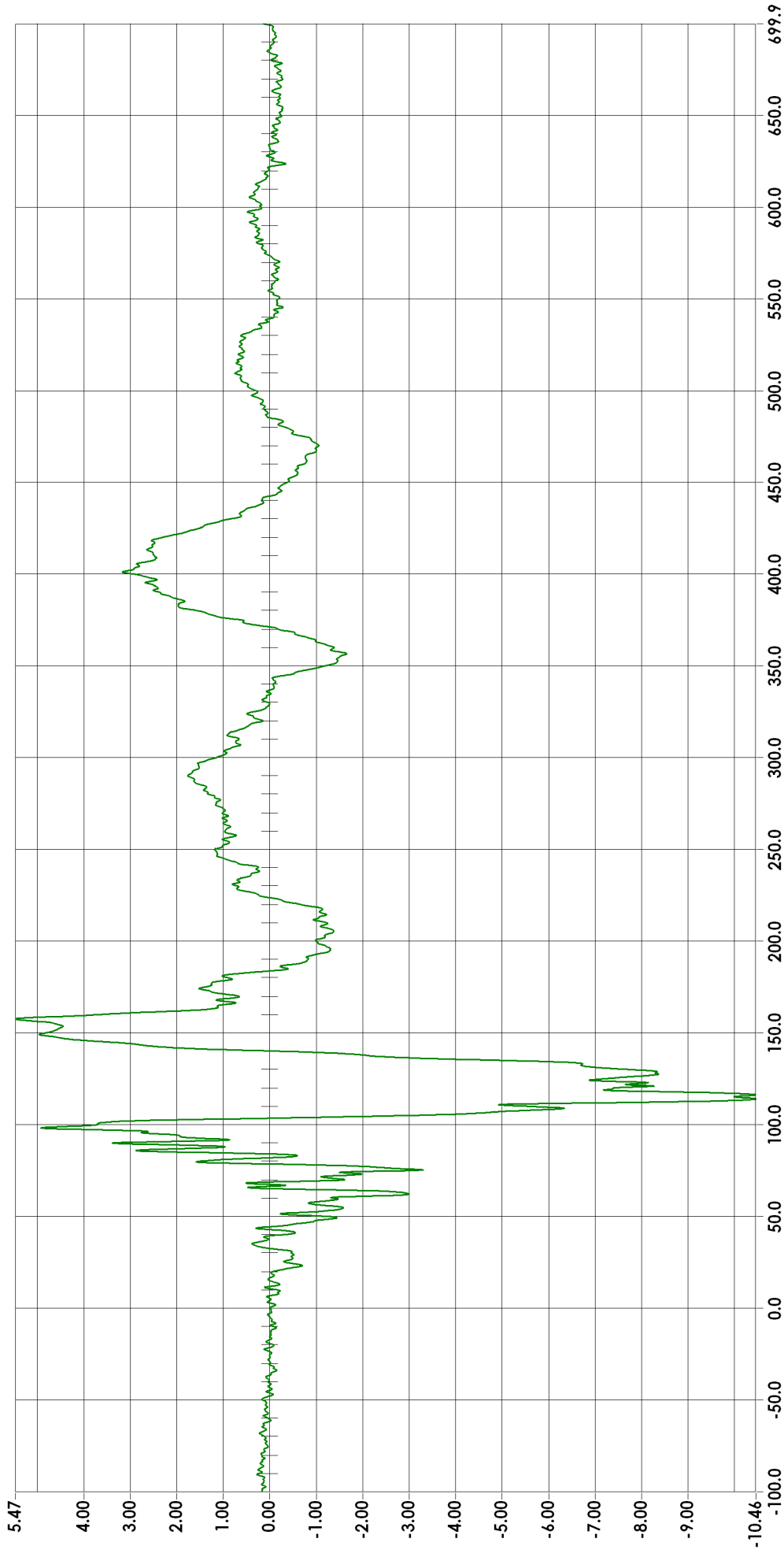
Max	29.71	G's	at	123.84	msec
Min	-8.38	G's	at	71.92	msec

SOI004 Plot 017



Test ID	SO1004	Filter	CFC180	Sensor Location	SPNM
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P63841
		Pretrigger Points	1250		

Driver t4 (z) acceleration ZL



Time (msec)

Max	5.47	G's	at	157.60	msec
Min	-10.46	G's	at	114.00	msec

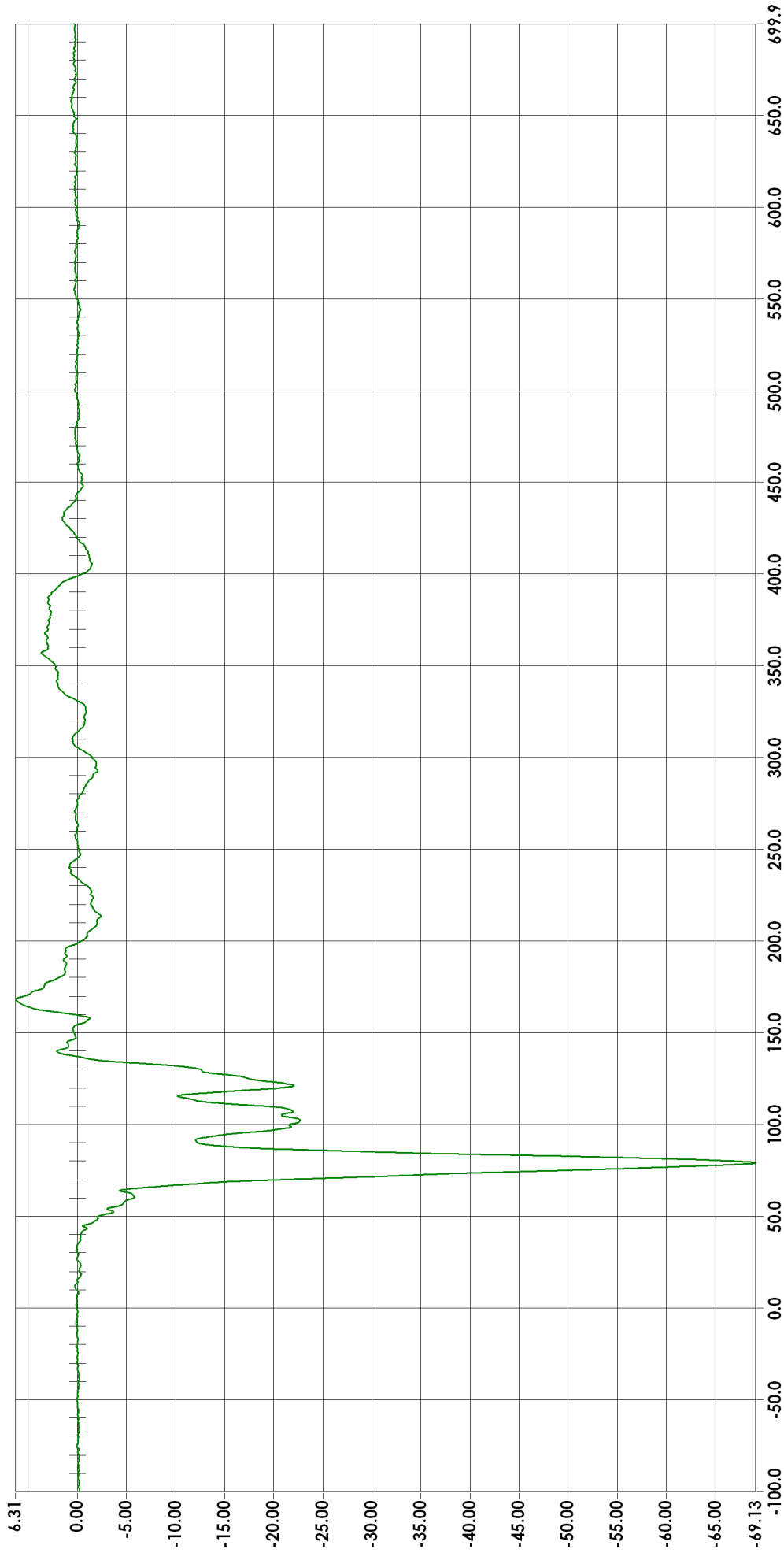
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SO1004 Plot 018



Test ID	SO1004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	SPNL
		Sensor Info	ENDEVCO 7264C-2000T2
		Serial Number	P63983

Driver t12 (x) acceleration XL



Time (msec)

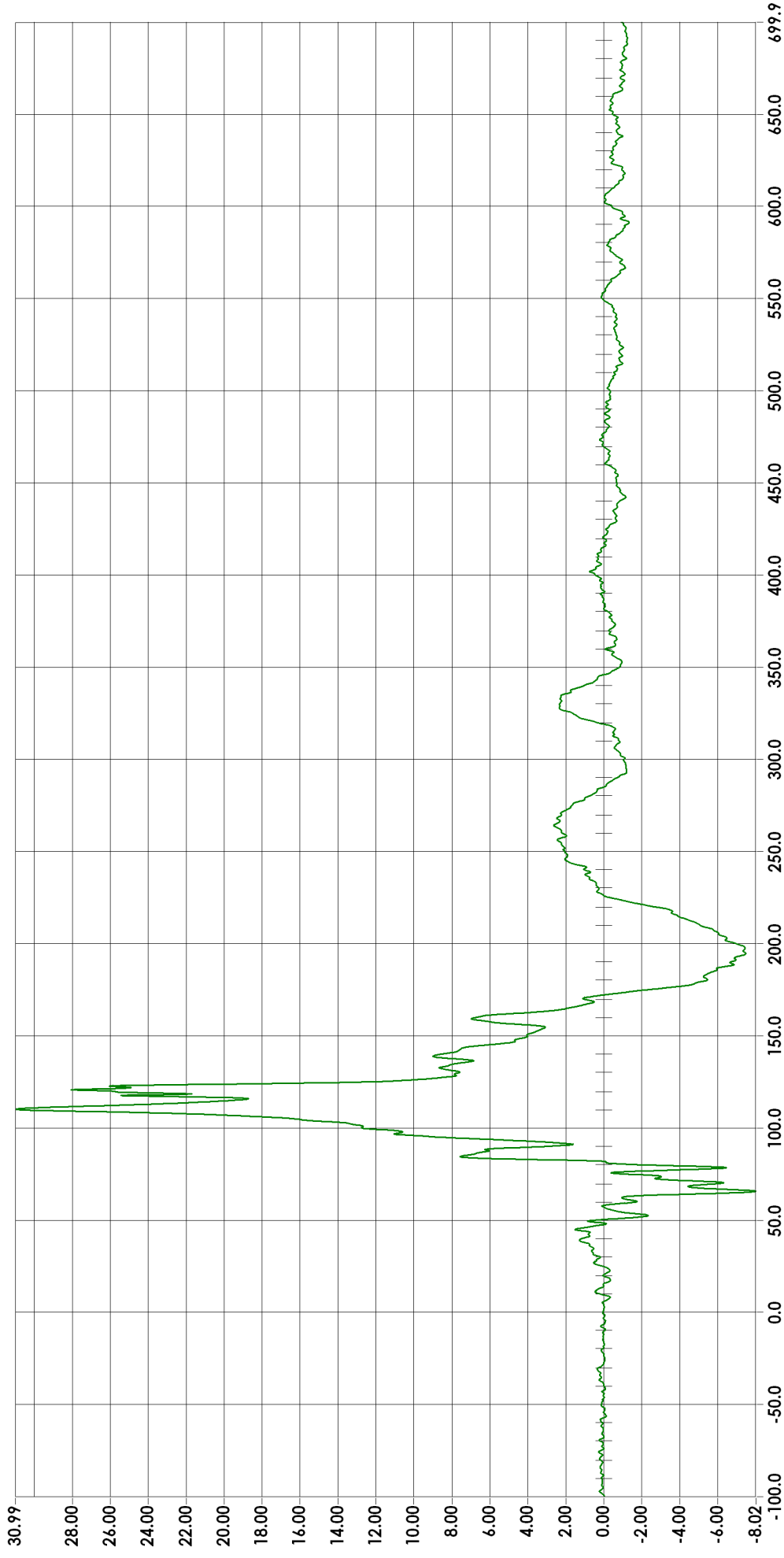
Max	6.31	G's	at	168.24	msec
Min	-69.13	G's	at	79.12	msec

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Test ID	SOI004	Filter	CFC180	Sensor Location	SPNL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P63992

Driver t12 (y) acceleration YL



Time (msec)

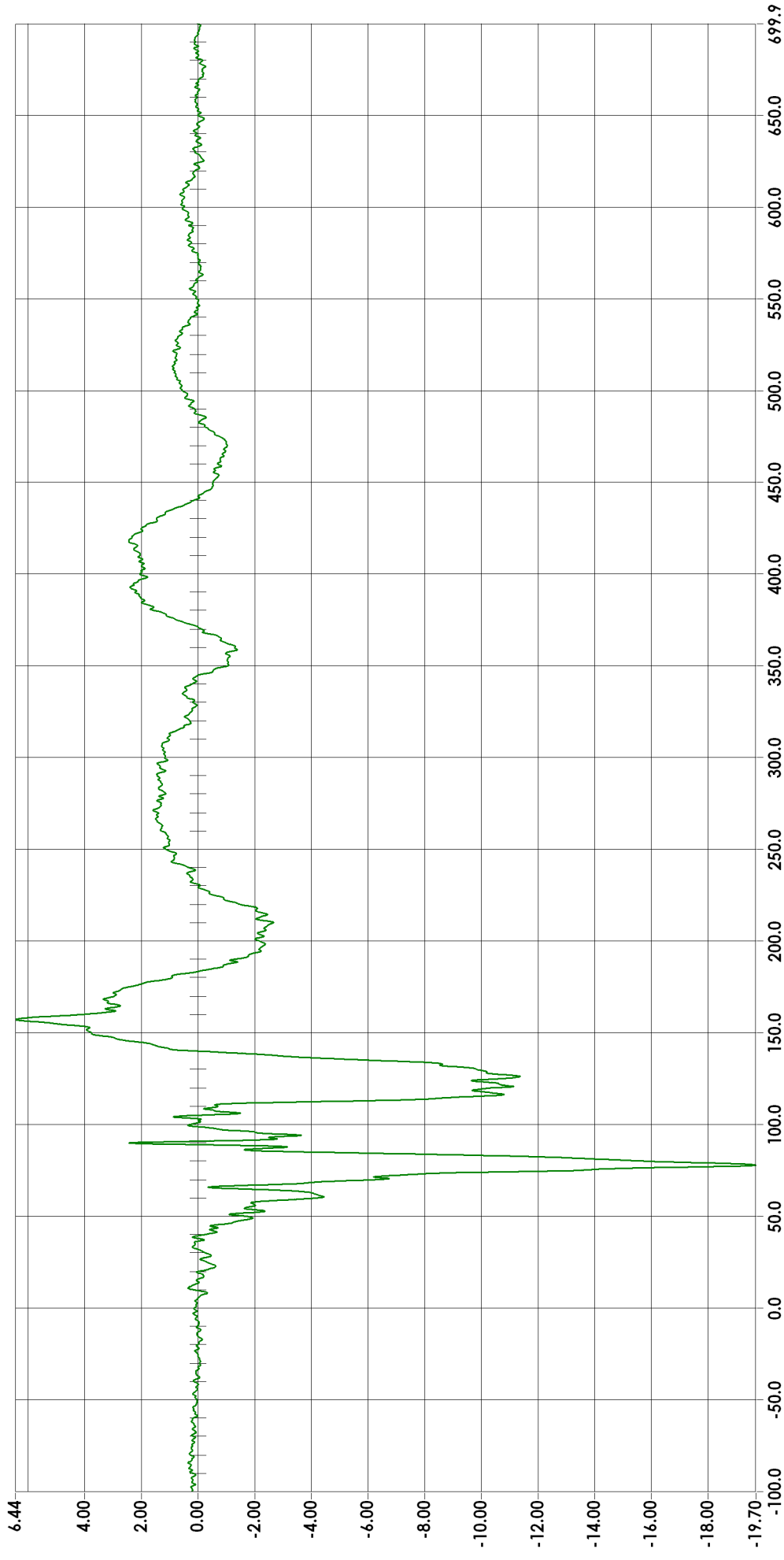
Max	30.99	G's	at	110.16	msec
Min	-8.02	G's	at	65.68	msec

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SOI004 Plot 020

Test ID	SO1004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	SPNL
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P63997

Driver t12 (z) acceleration ZL



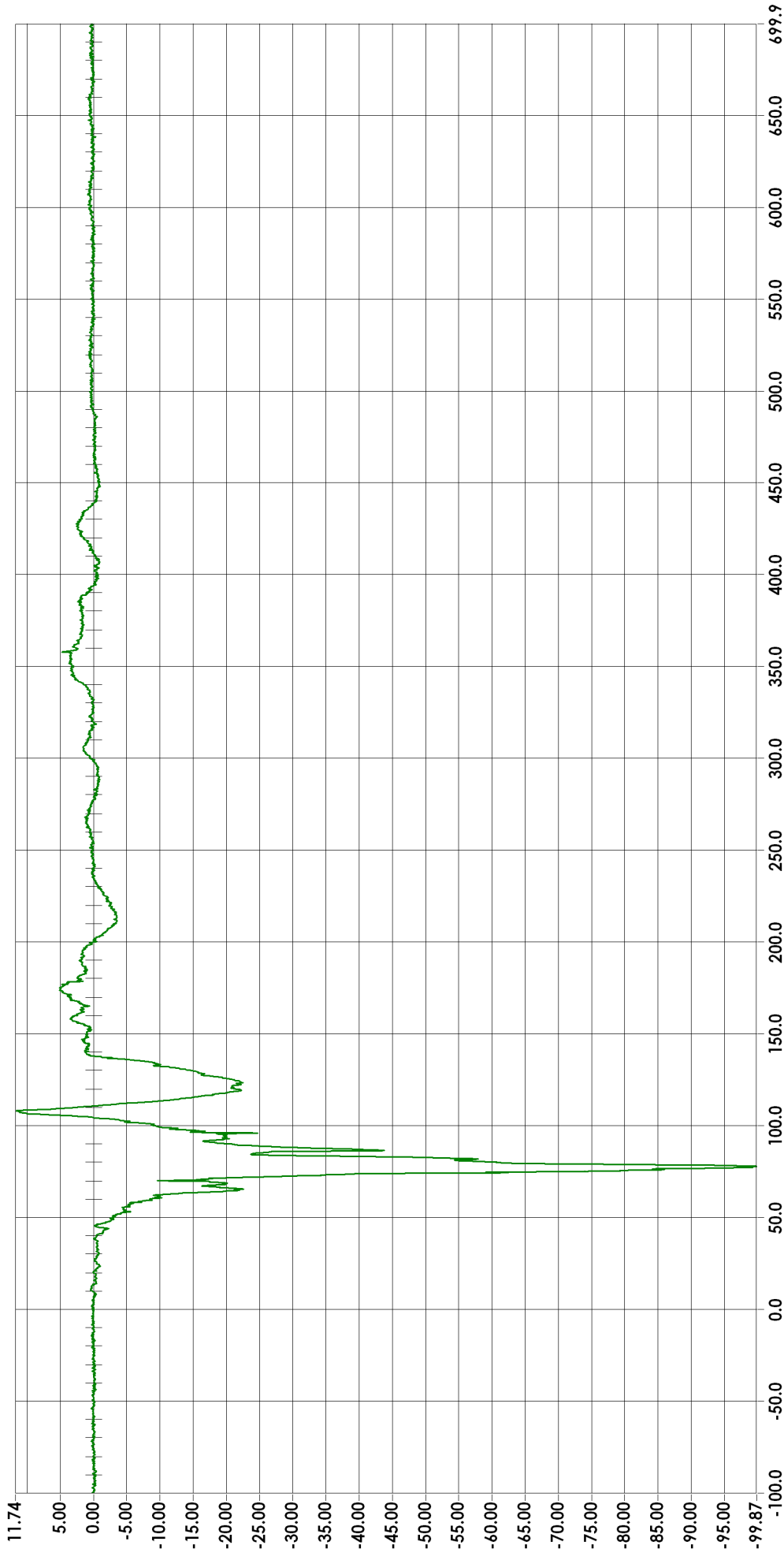
Time (msec)

Max	6.44	G's	at	157.20	msec
Min	-19.70	G's	at	77.92	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	PVCN
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P63981

G's Driver pelvis (x) acceleration XL



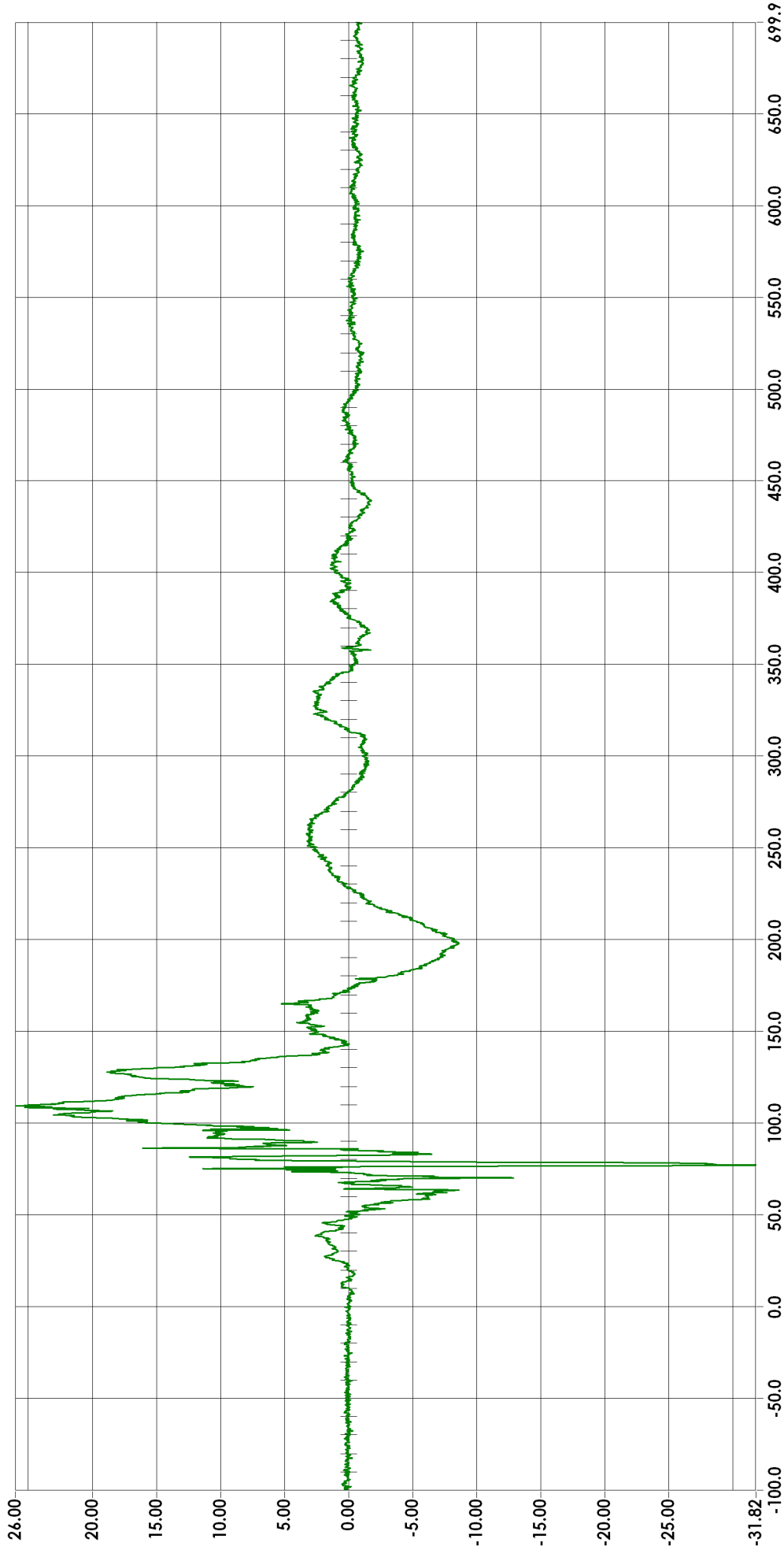
Time (msec)

Max	11.74	G's	at	108.08	msec
Min	-99.87	G's	at	77.92	msec

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Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	PVCN
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P64007

Driver pelvis (y) acceleration YL



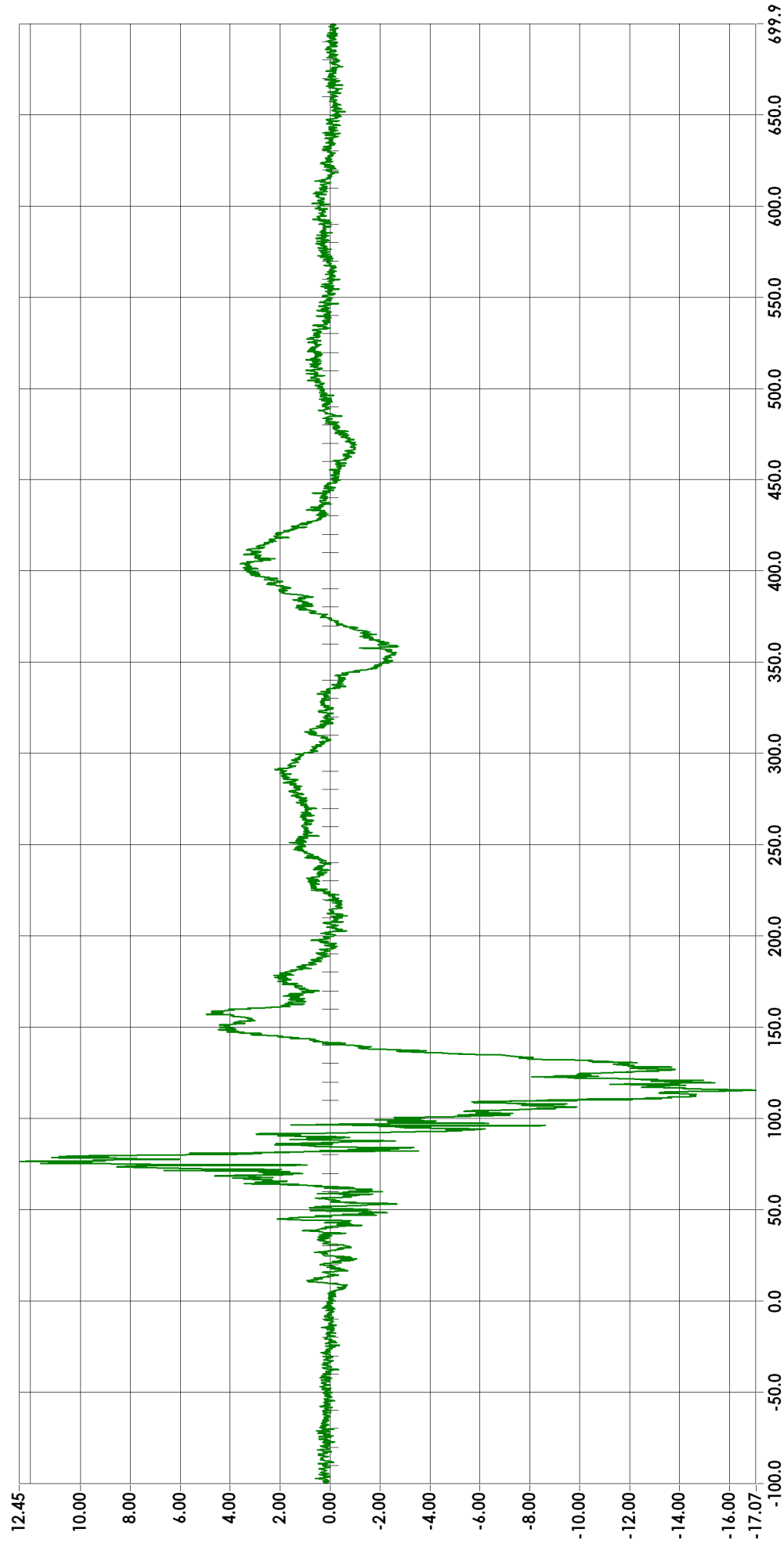
Time (msec)

Max	26.00	G's	at	109.44	msec
Min	-31.82	G's	at	77.12	msec

SO1004 Plot 023

Test ID	SOI004	Filter	CFC1000		
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	PVCN
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	ENDEVCO 7264C-2000TZ
		Pretrigger Points	1250	Serial Number	P63995

G's Driver pelvis (z) acceleration ZL



Time (msec)

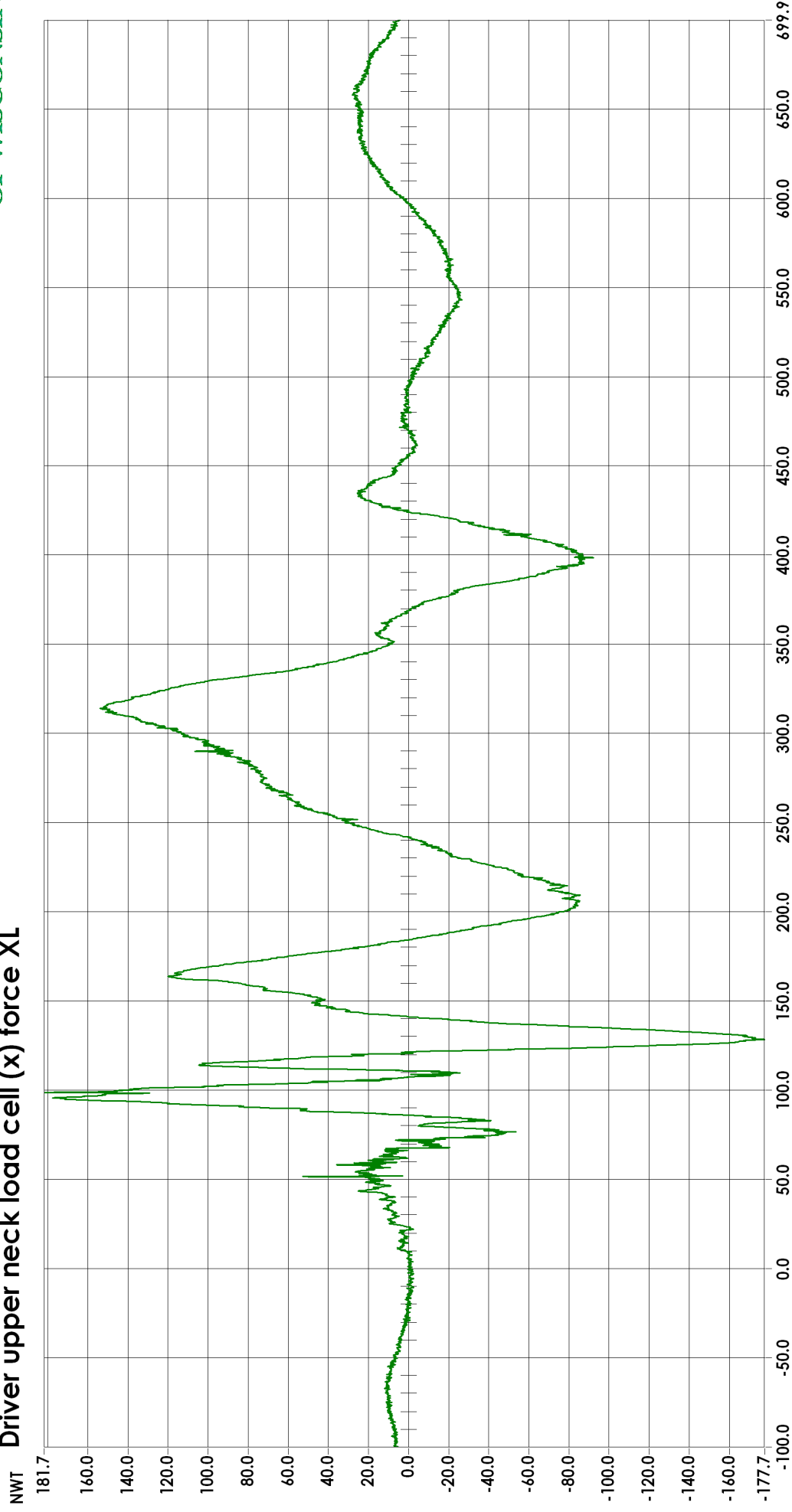
Max	12.45	G's	at	76.48	msec
Min	-17.07	G's	at	115.44	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 3454J
		Serial Number	3454J_76_FX

Driver upper neck load cell (x) force XL



Time (msec)

Max	181.72	NWT	at	98.72	msec
Min	-177.68	NWT	at	128.48	msec

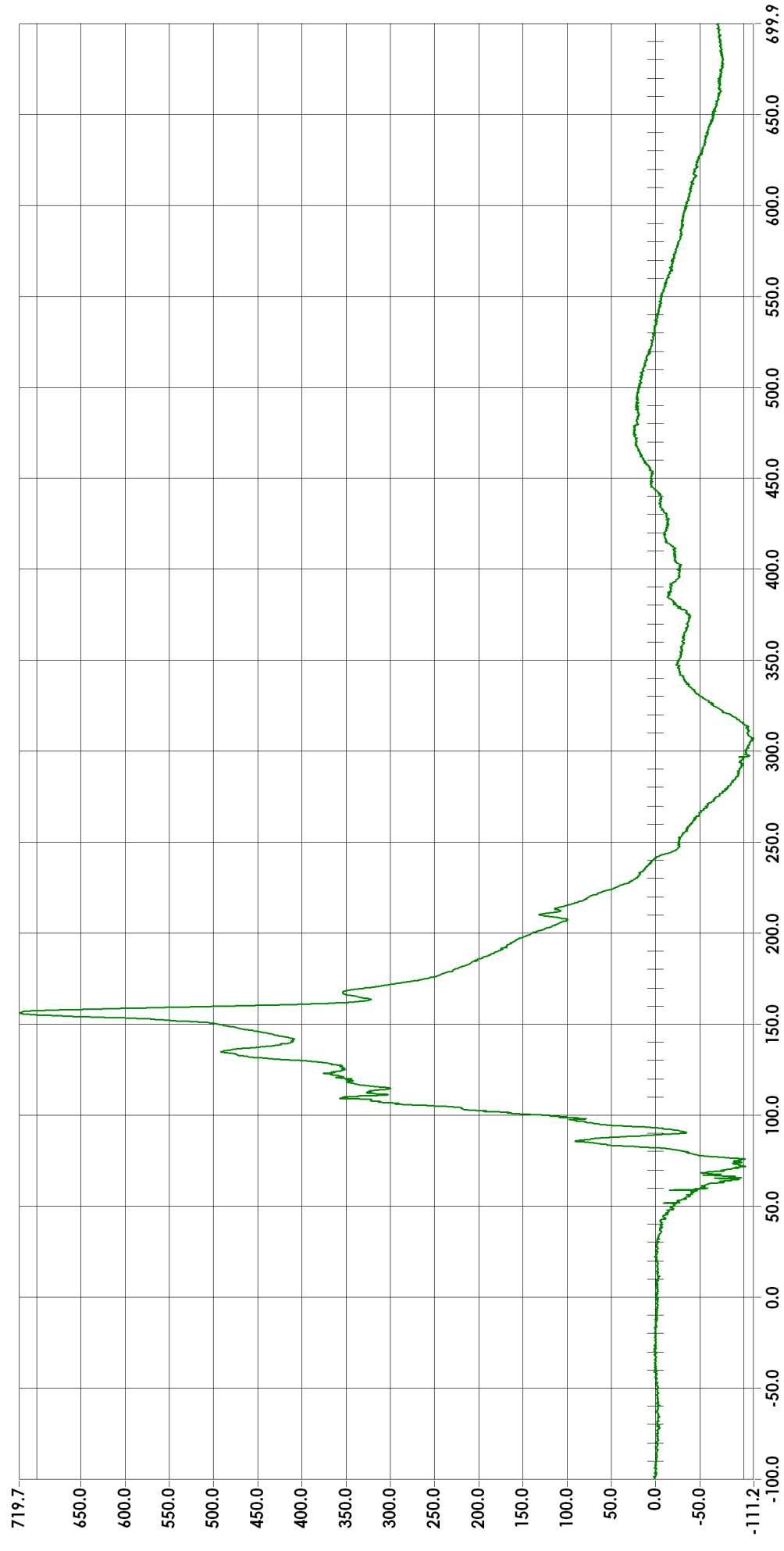
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Milwaukee, WI 53295

SOI004 Plot 025



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 3454J
		Serial Number	3454J_76_FY

Driver upper neck load cell (y) force YL



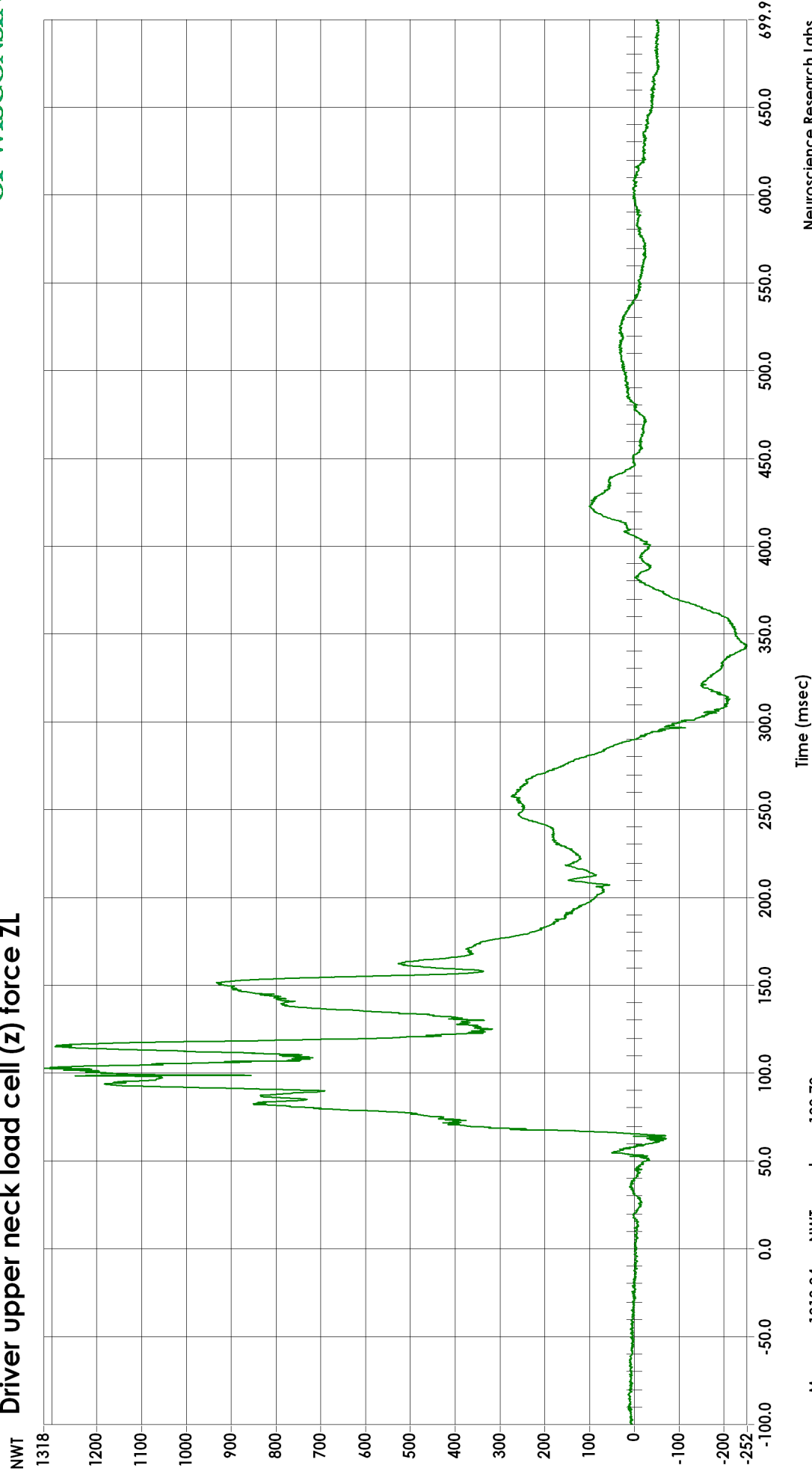
Time (msec)

Max	719.66	NWT	at	156.32	msec
Min	-111.19	NWT	at	307.12	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 3454J
		Serial Number	3454J_76_FZ

Driver upper neck load cell (z) force ZL

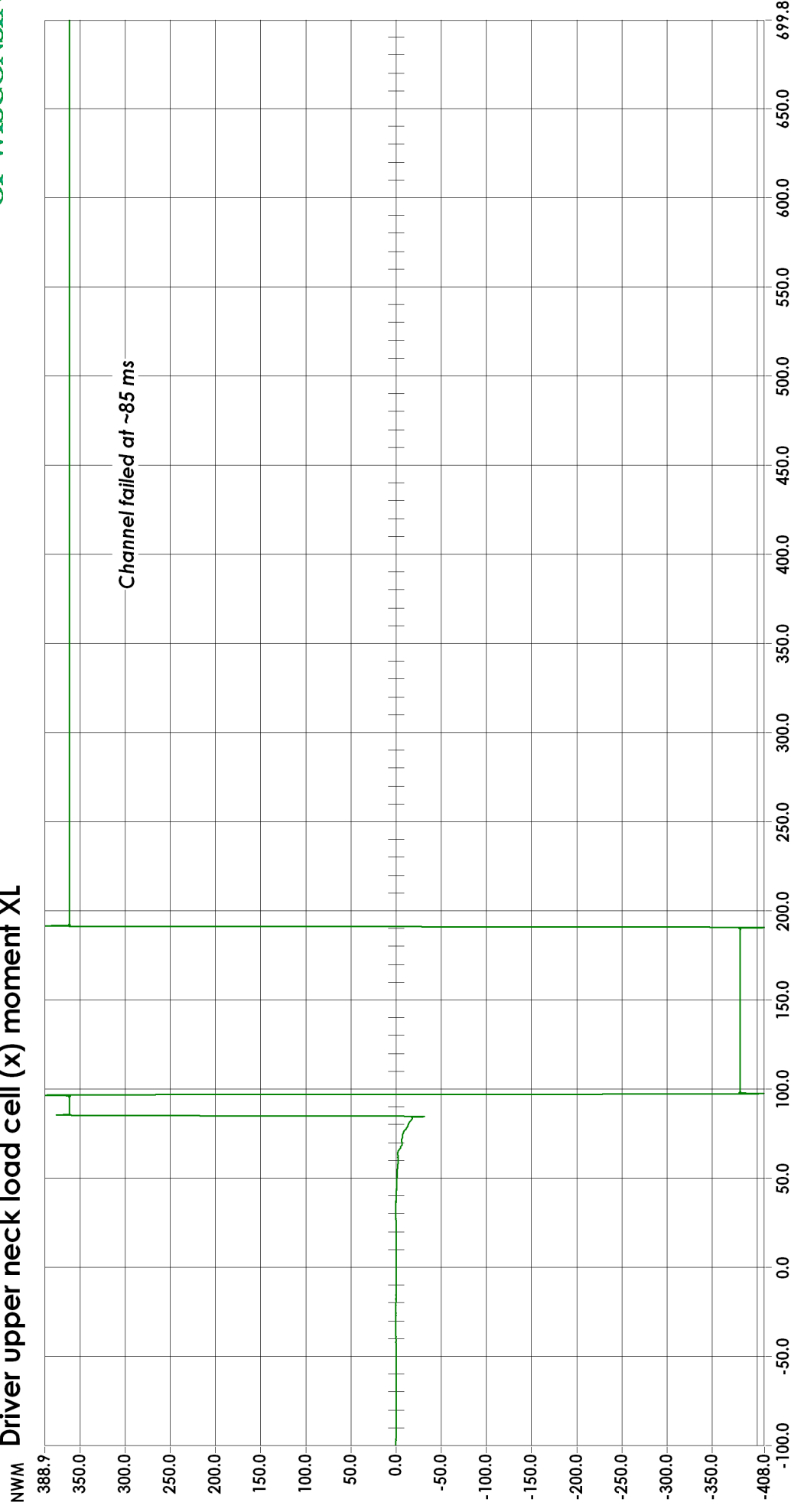


Max	1318.04	NWT	at	102.72	msec
Min	-251.93	NWT	at	343.44	msec

SOI004 Plot 027

Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 3454J
		Serial Number	3454J_76_MX

Driver upper neck load cell (x) moment XL



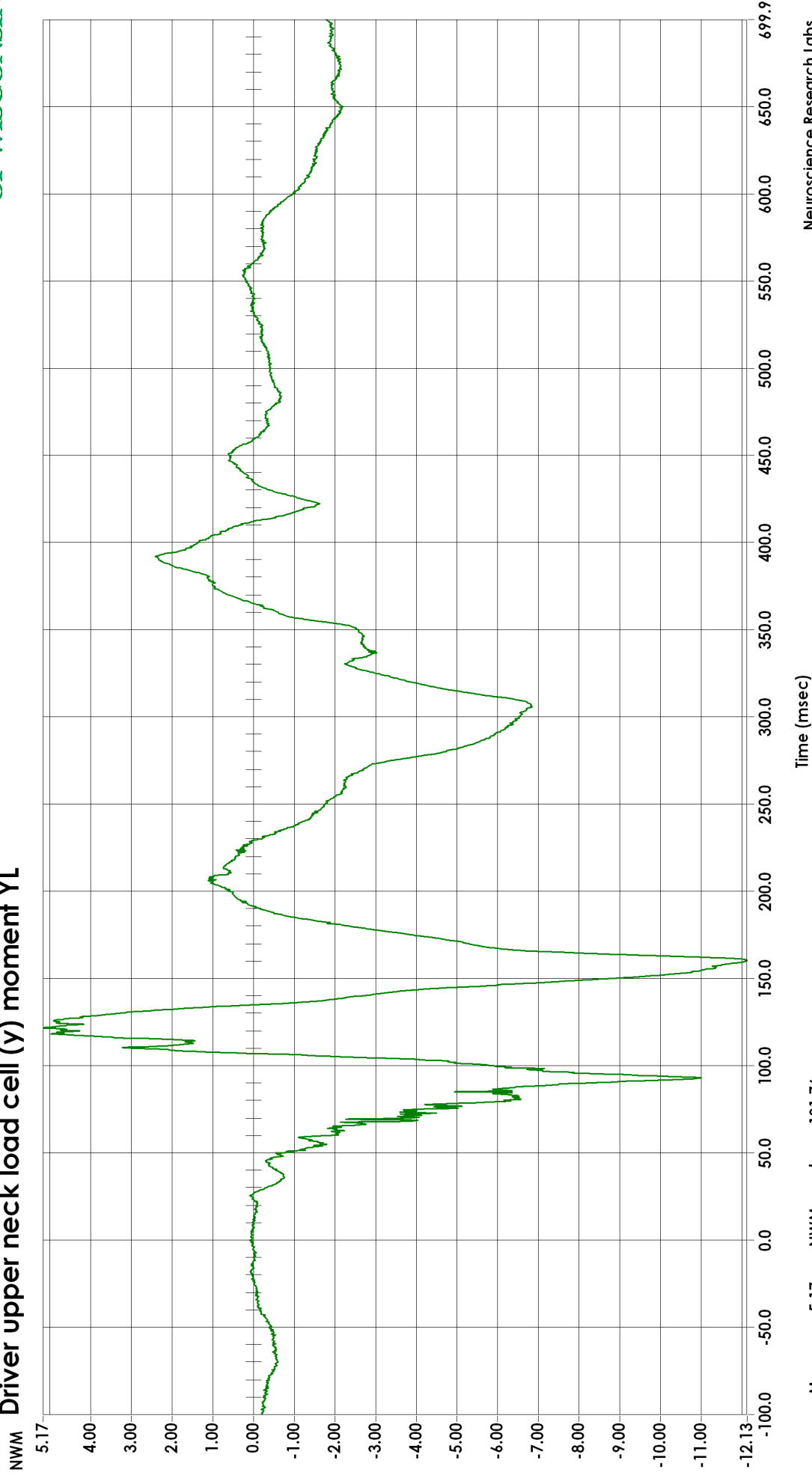
Max	388.87	NWM	at	191.52	msec
Min	-407.96	NWM	at	190.64	msec

SOI004 Plot 028



Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefilter Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 3454J
		Serial Number	3454J_76_MY

Driver upper neck load cell (y) moment YL



Max	5.17	NWM	at	121.76	msec
Min	-12.13	NWM	at	160.48	msec

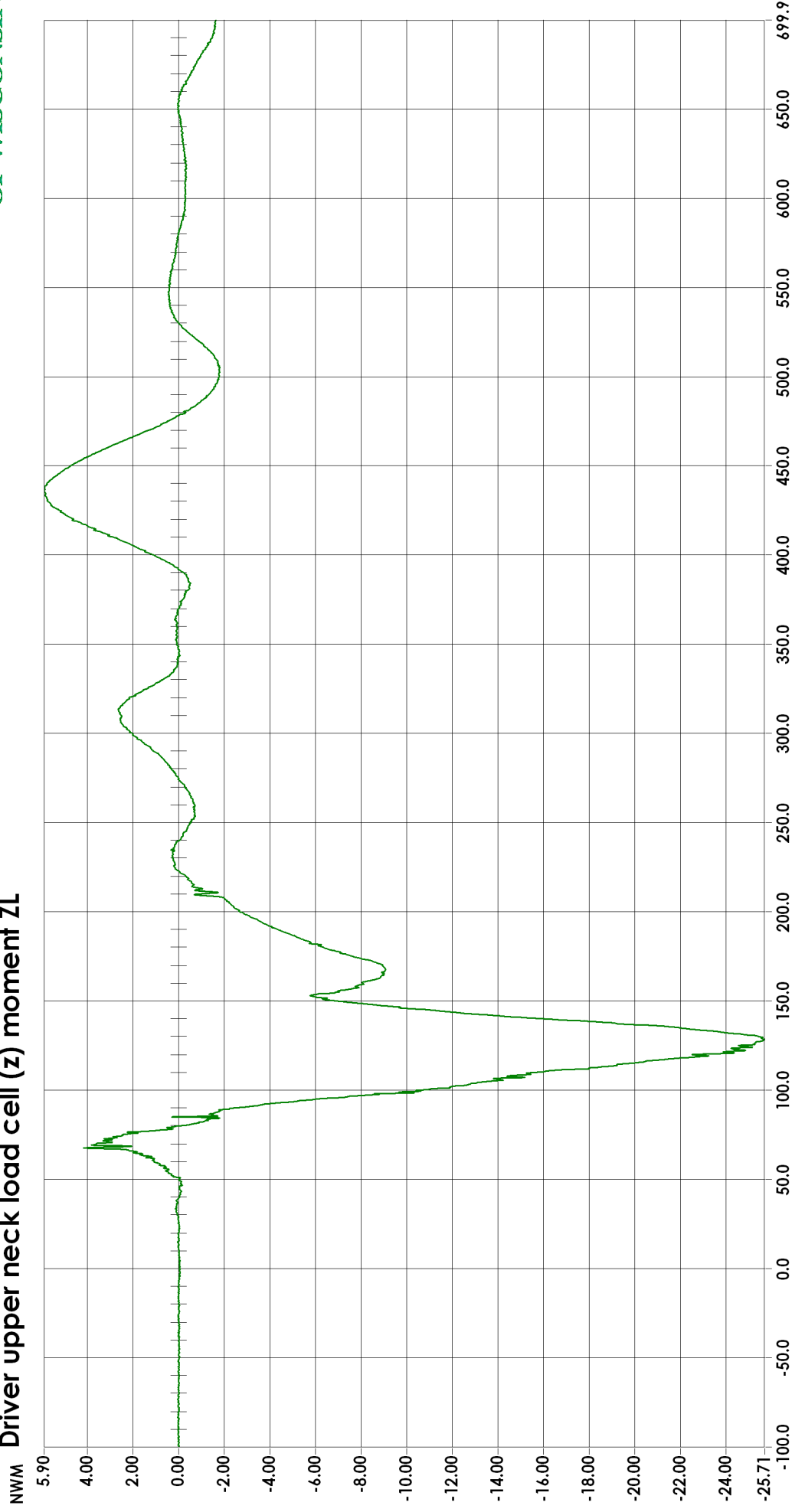
SOI004 Plot 029

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Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 3454J
		Serial Number	3454J_76_MZ

Driver upper neck load cell (z) moment ZL



Time (msec)

Max	5.90	NWM	at	436.24	msec
Min	-25.71	NWM	at	128.48	msec

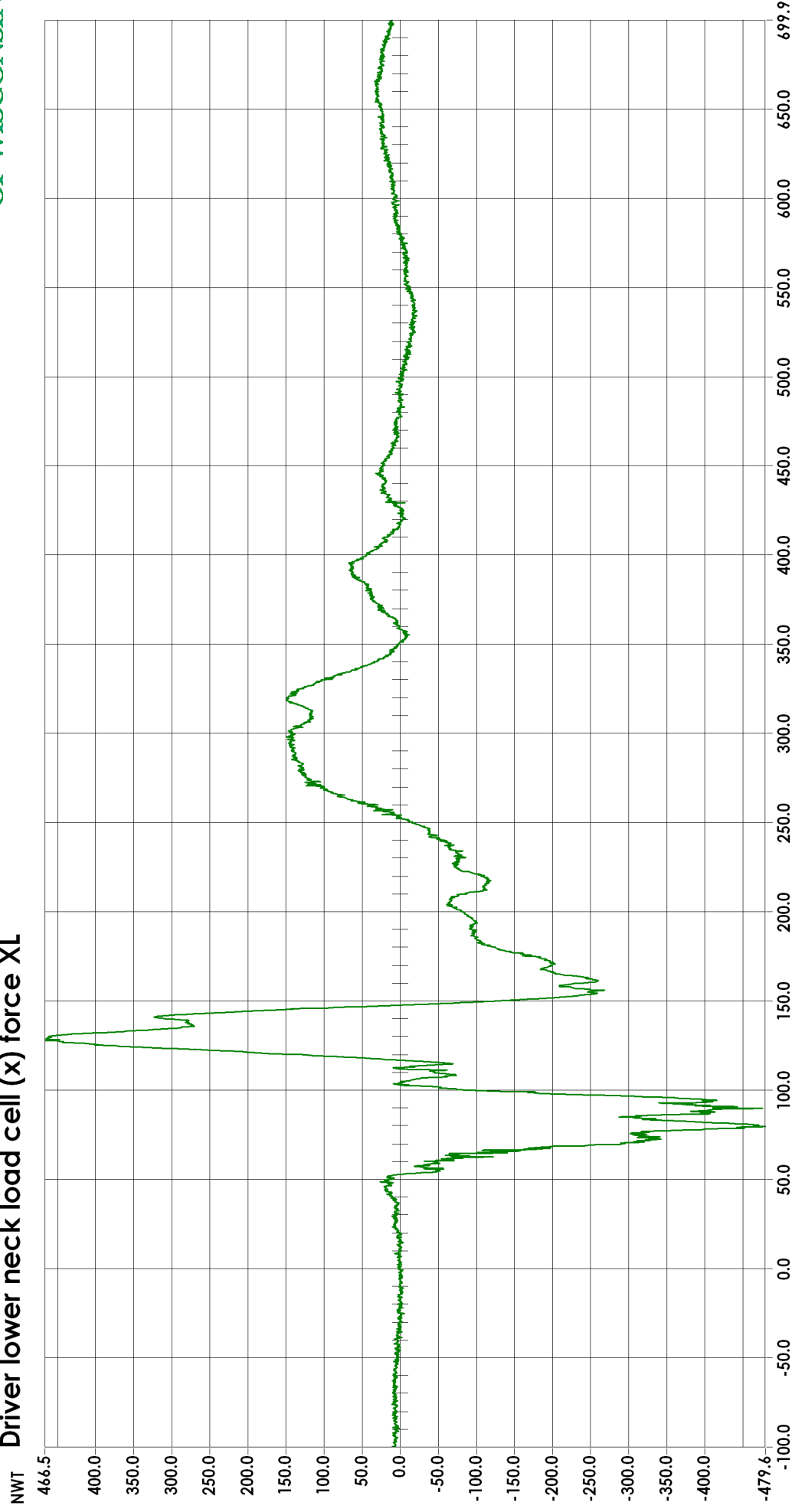
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Milwaukee, WI 53295

SO1004 Plot 030



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 4366J
		Serial Number	4366J_85_FX

Driver lower neck load cell (x) force XL



Time (msec)

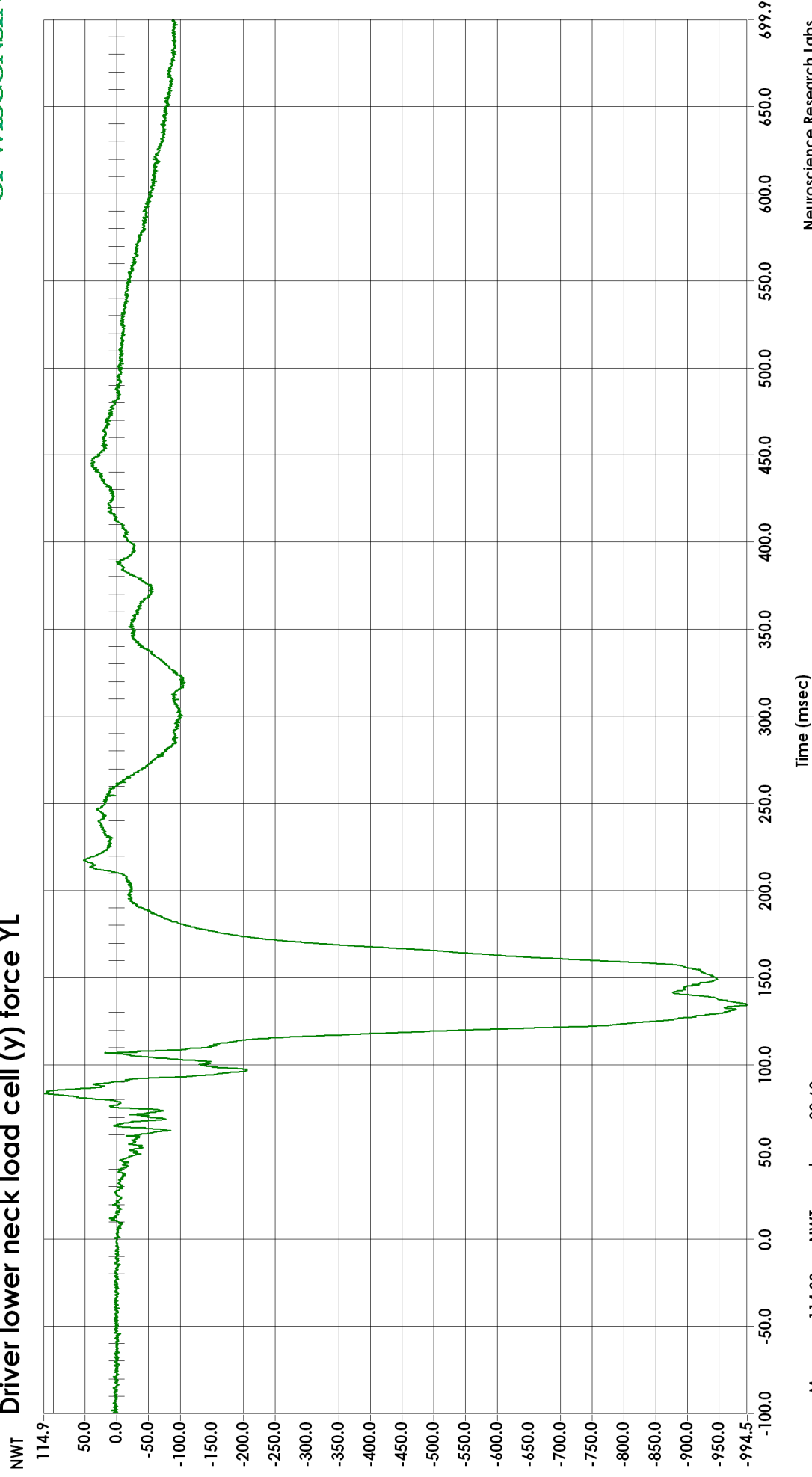
Max	466.53	NWT	at	127.92	msec
Min	-479.63	NWT	at	79.60	msec

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SOI004 Plot 031

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 4366J
		Serial Number	4366J_85_FY

Driver lower neck load cell (y) force YL

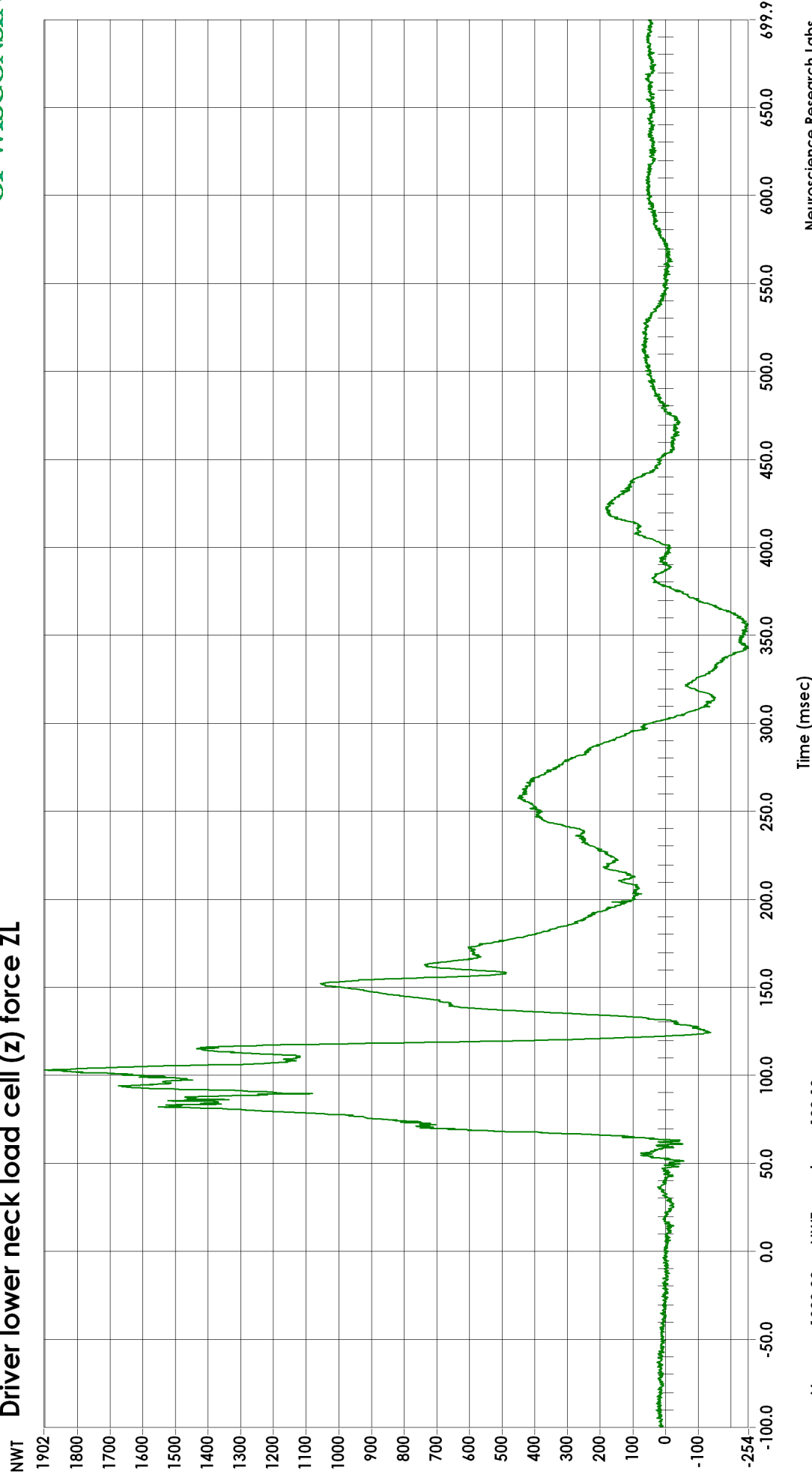


Max	114.92	NWT	at	83.60	msec
Min	-994.52	NWT	at	134.48	msec

SOI004 Plot 032

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 4366J
		Serial Number	4366J_85_FZ

Driver lower neck load cell (z) force ZL



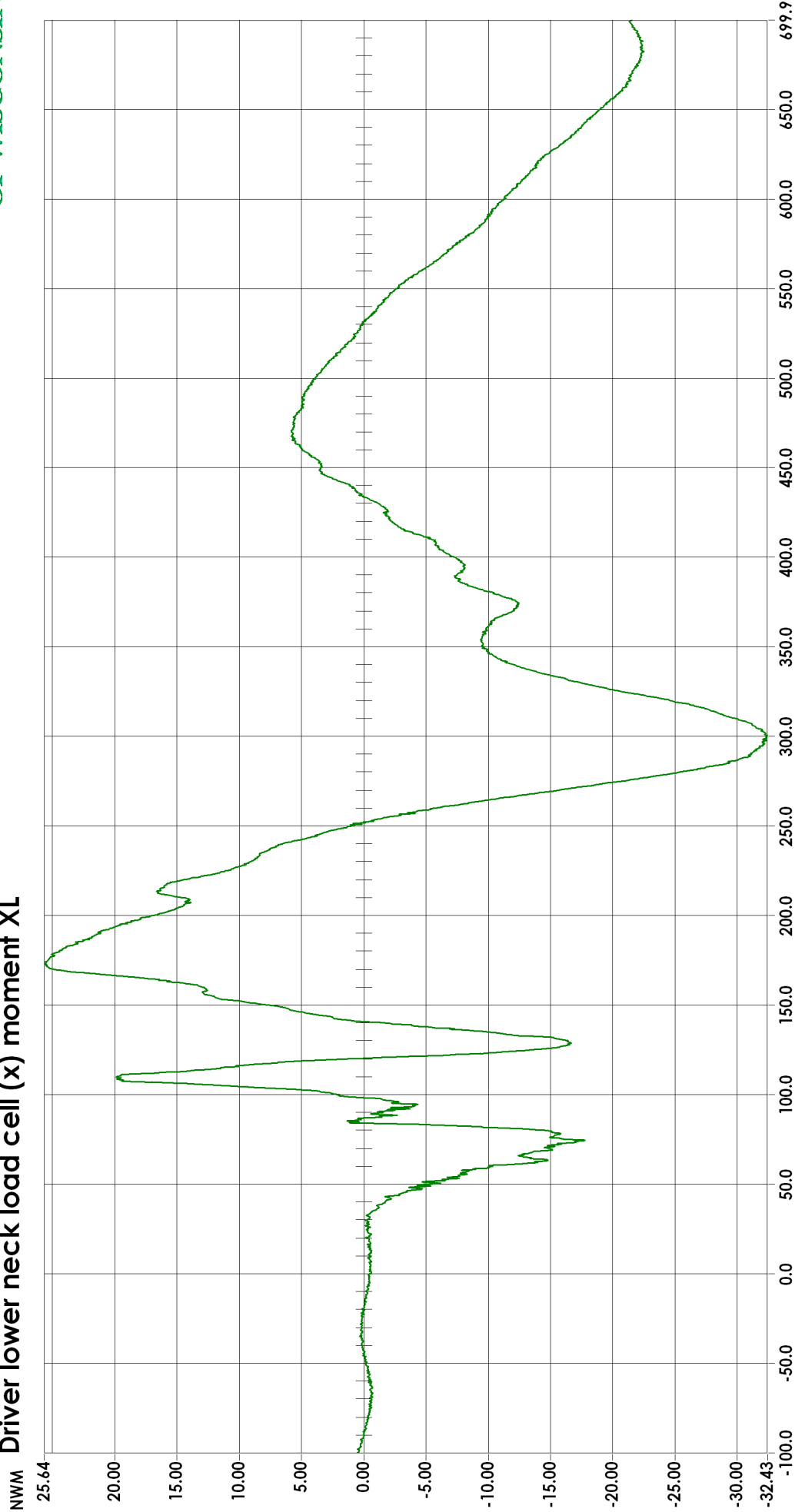
Max	1902.20	NWT	at	103.12	msec
Min	-254.41	NWT	at	342.96	msec

SOI004 Plot 033



Test ID	SOI004	Filter	CFC600	Sensor Location	NEKL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 4366J
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	4366J_85_MX

Driver lower neck load cell (x) moment XL



Time (msec)

Max	25.64	NWM	at	173.04	msec
Min	-32.43	NWM	at	300.40	msec

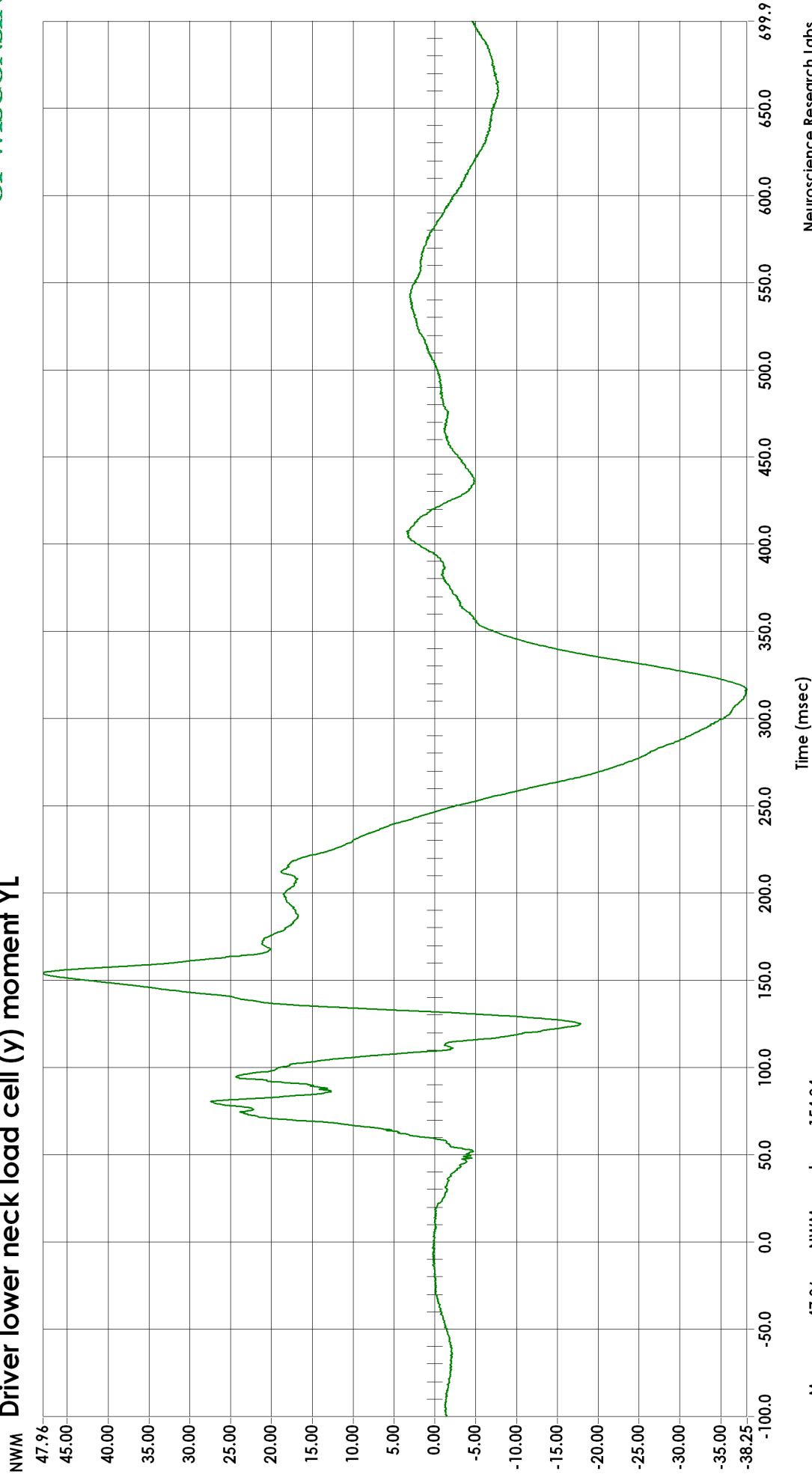
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Milwaukee, WI 53295

SOI004 Plot 034



Test ID	SO1004	Filter	CFC600	Sensor Location	NEKL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 4366J
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	4366J_85_MY

Driver lower neck load cell (y) moment YL



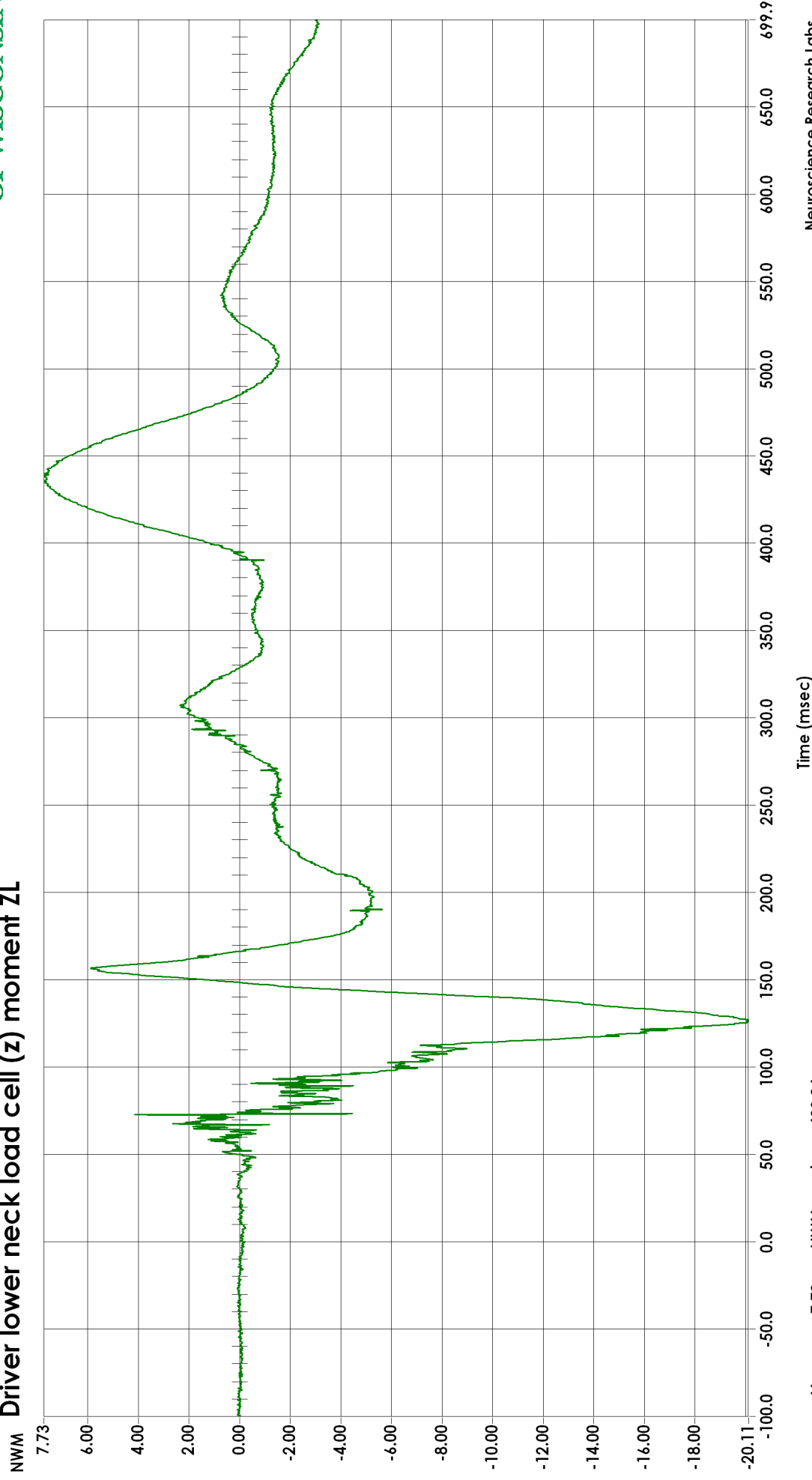
Max	47.96	NWM	at	154.24	msec
Min	-38.25	NWM	at	316.72	msec

SO1004 Plot 035

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 4366J
		Serial Number	4366J_85_MZ

Driver lower neck load cell (z) moment ZL

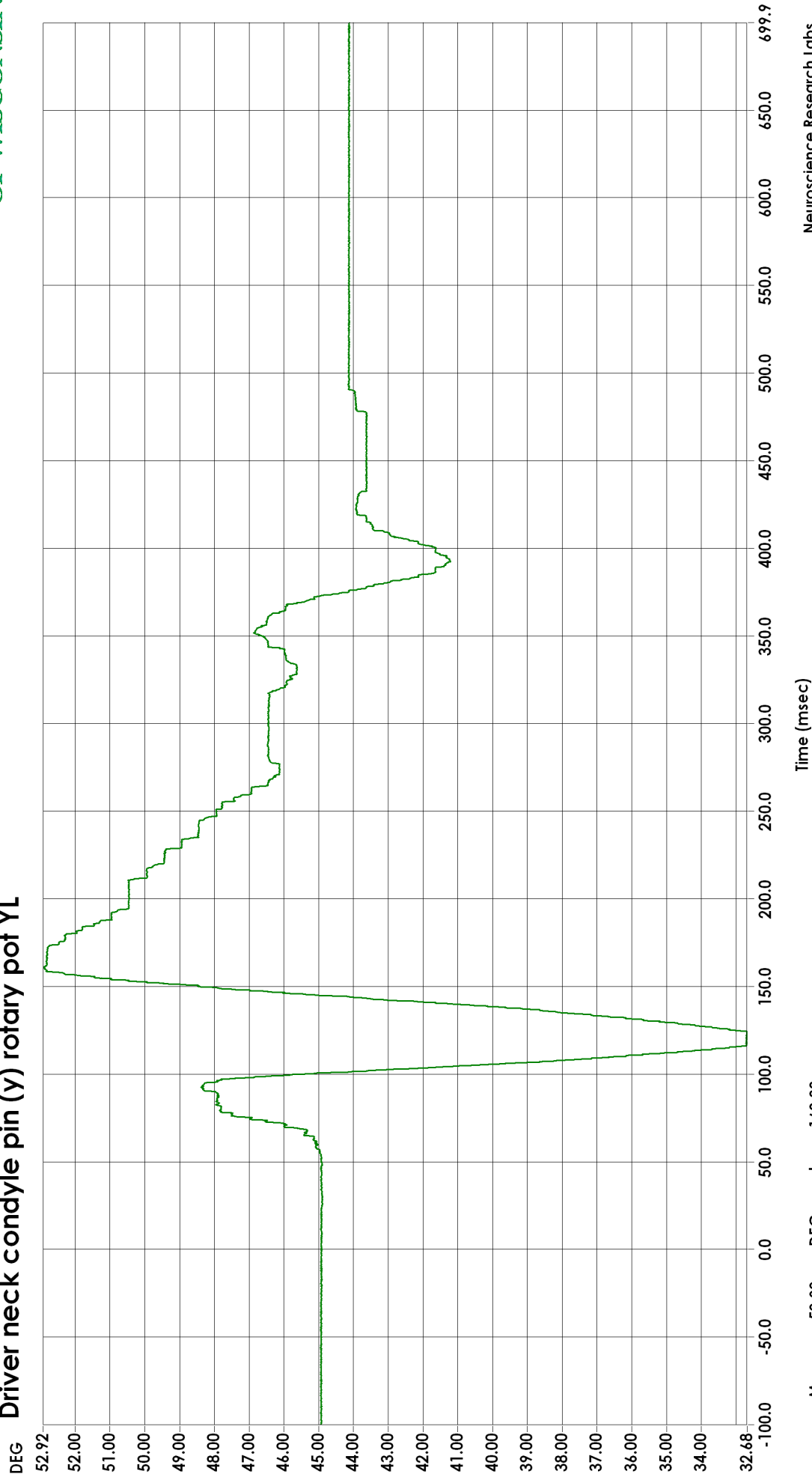


Max	7.73	NWM	at	439.84	msec
Min	-20.11	NWM	at	126.56	msec

SOI004 Plot 036

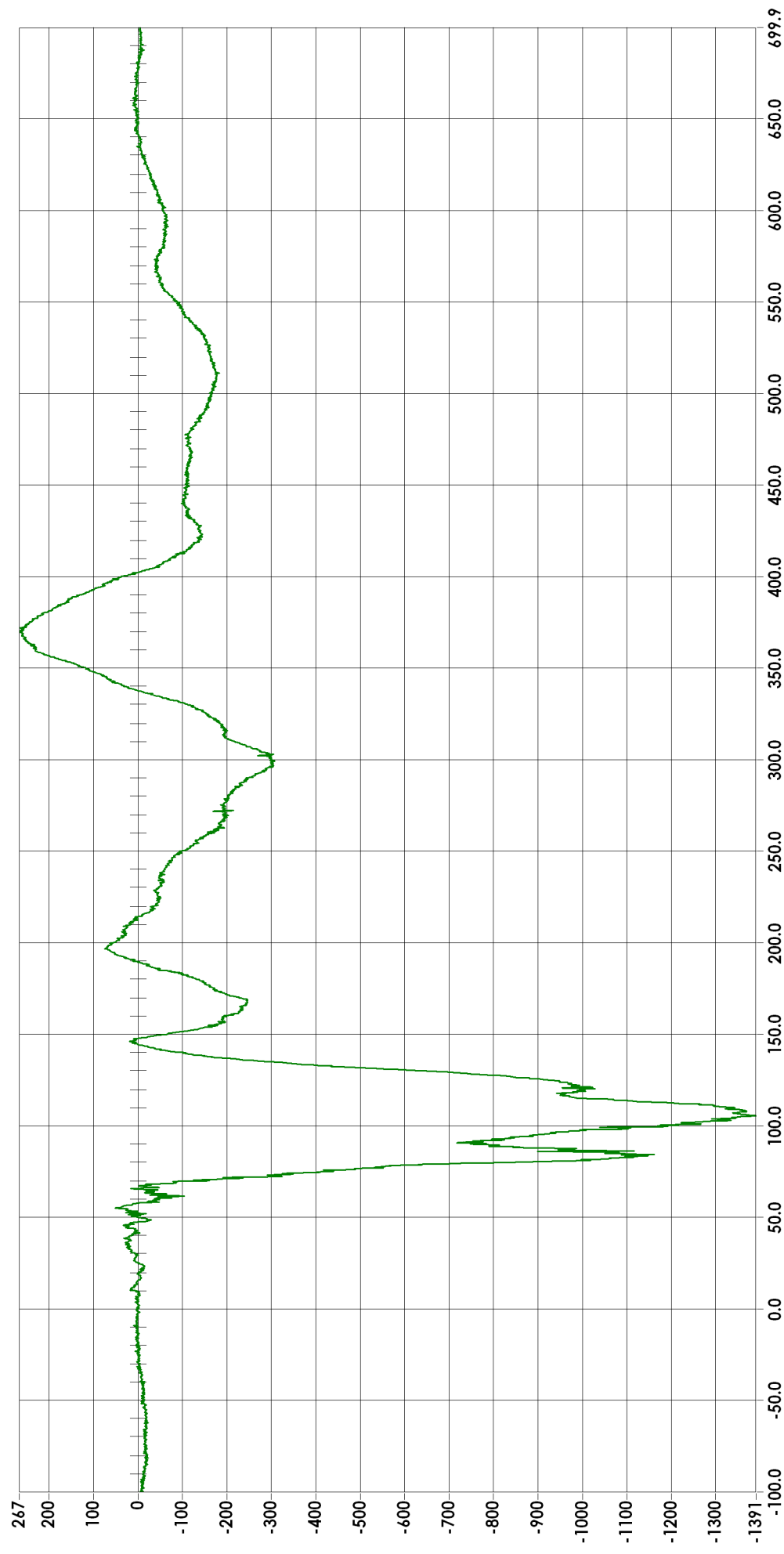
Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	CONTELEC PD210-4B
		Serial Number	PD210-4B_0441

Driver neck condyle pin (y) rotary pot YL



Test ID	SOI004	Filter	CFC1000	Sensor Location	SPNL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 1911A
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1911A_125_FX
		Prefrigger Points	1250		

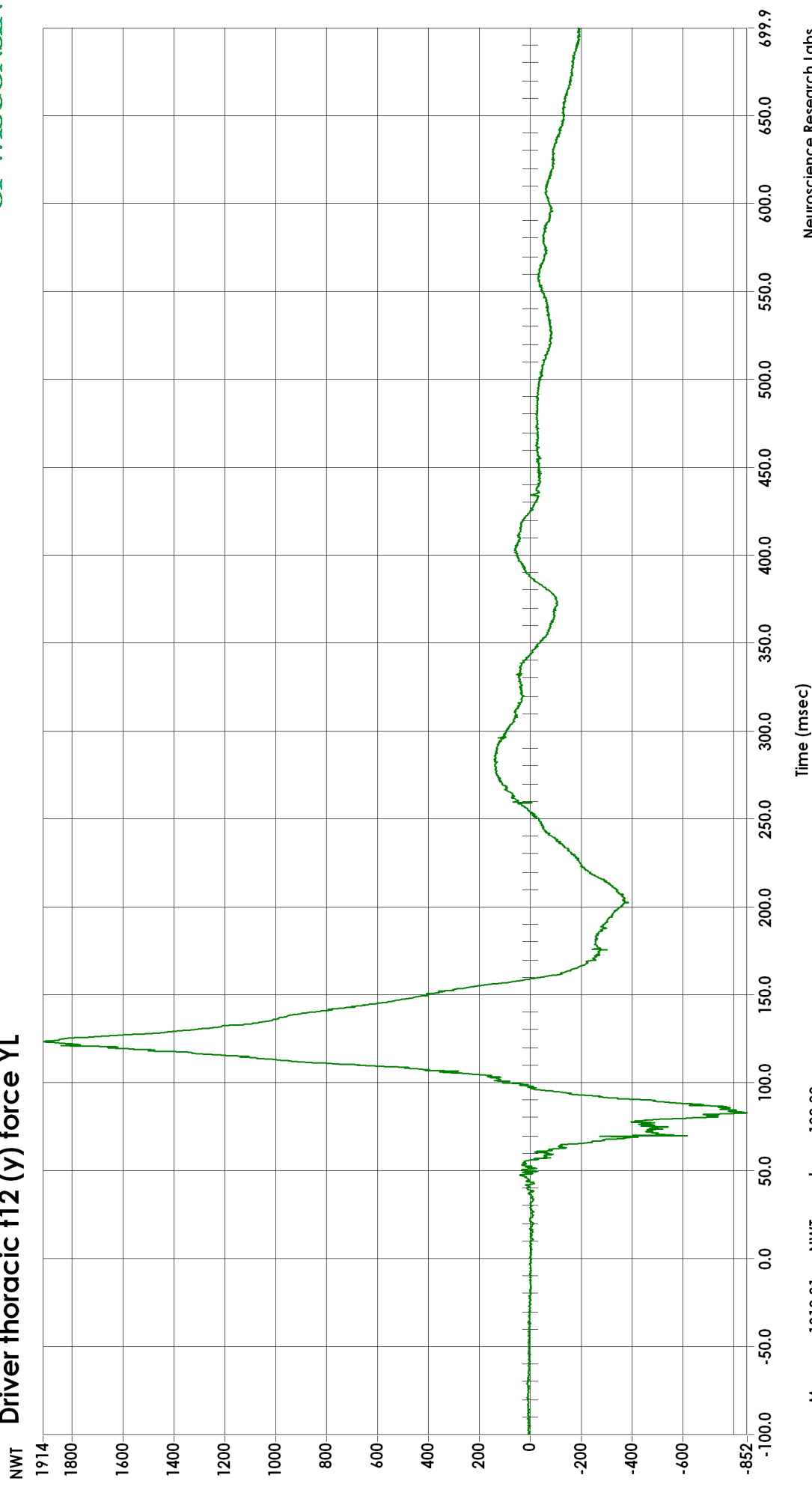
Driver thoracic t12 (x) force XL





Test ID	SOI004	Filter	CFC1000	
Date	10-19-2010	Sampling Rate (Hz)	12500	SPNL
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Denton 1911A
		Prefrigger Points	1250	1911A_125_FY

Driver thoracic t12 (y) force YL

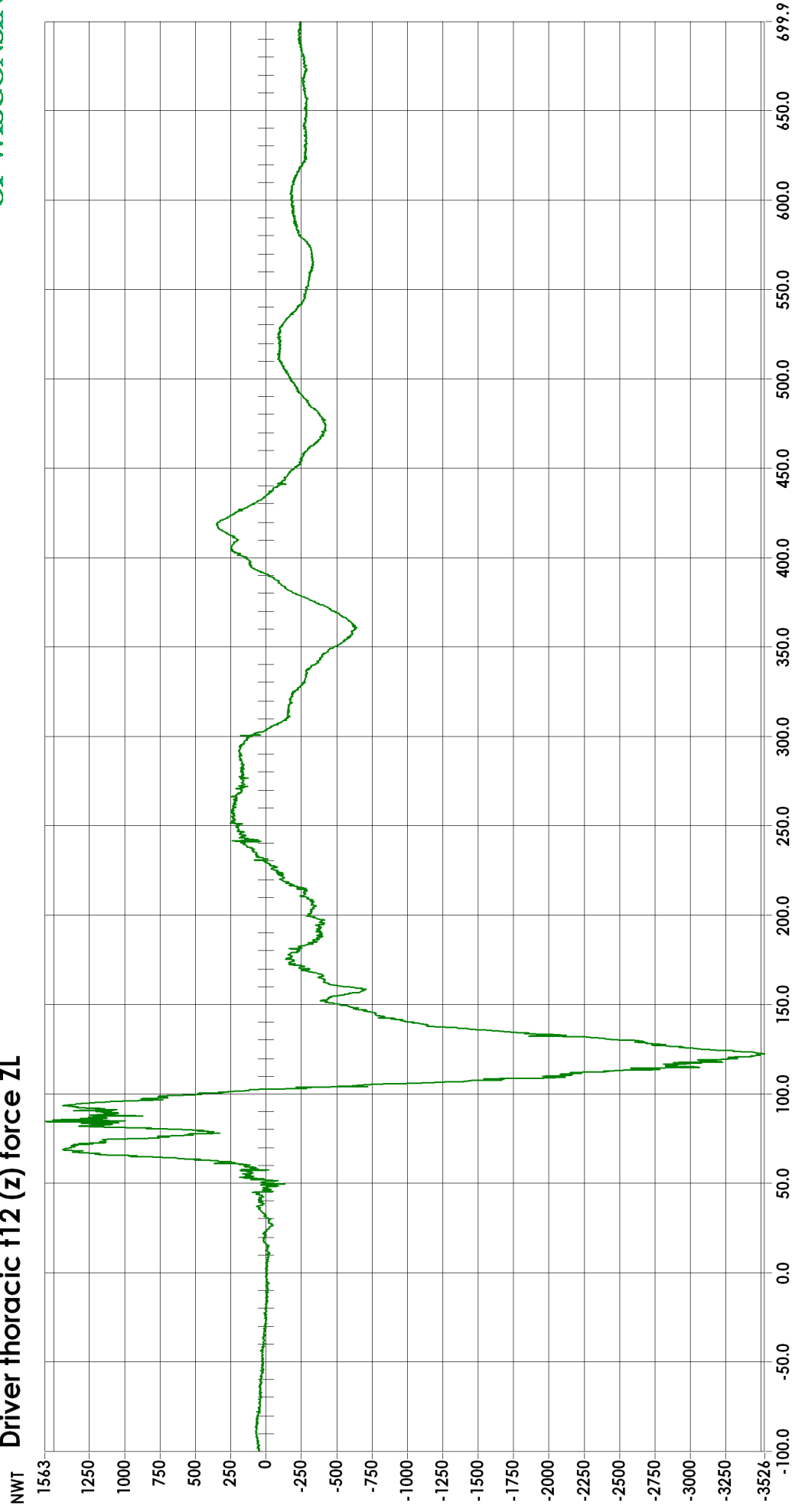


Max	1913.81	NWT	at	123.28	msec
Min	-852.45	NWT	at	82.88	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	SPNL
		Sensor Info	Denton 1911A
		Serial Number	1911A_125_FZ

Driver thoracic t12 (z) force ZL



Time (msec)

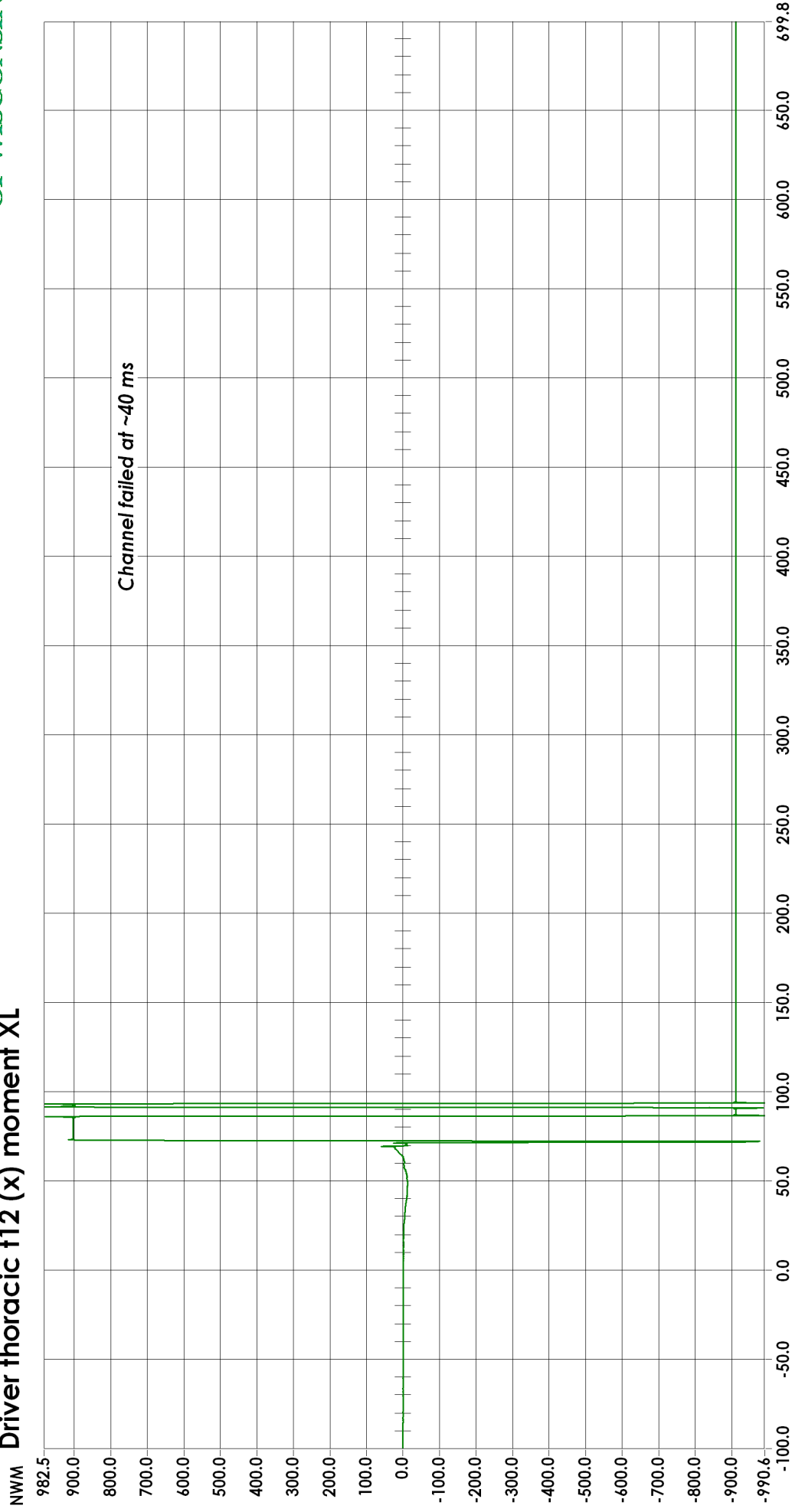
Max	1563.47	NWT	at	84.56	msec
Min	-3526.25	NWT	at	122.48	msec

SOI004 Plot 040

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	SPNL
		Sensor Info	Denton 1911A
		Serial Number	1911A_125_MX

Driver thoracic t12 (x) moment XL



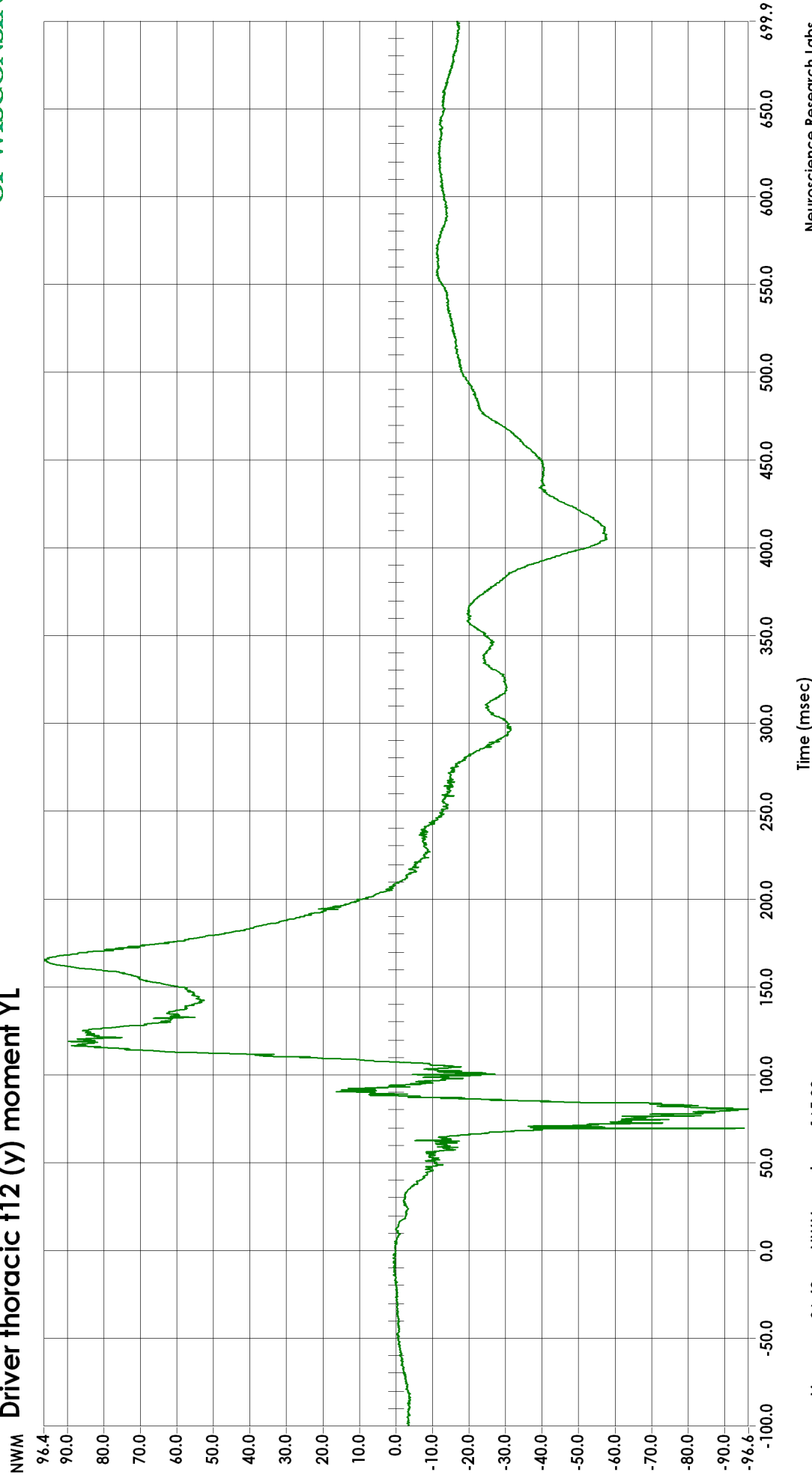
Time (msec)

Max	982.50	NWM	at	91.52	msec
Min	-990.60	NWM	at	86.64	msec

SOI004 Plot 041

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	SPNL
		Sensor Info	Denton 1911A
		Serial Number	1911A_125_MY

Driver thoracic t12 (y) moment YL

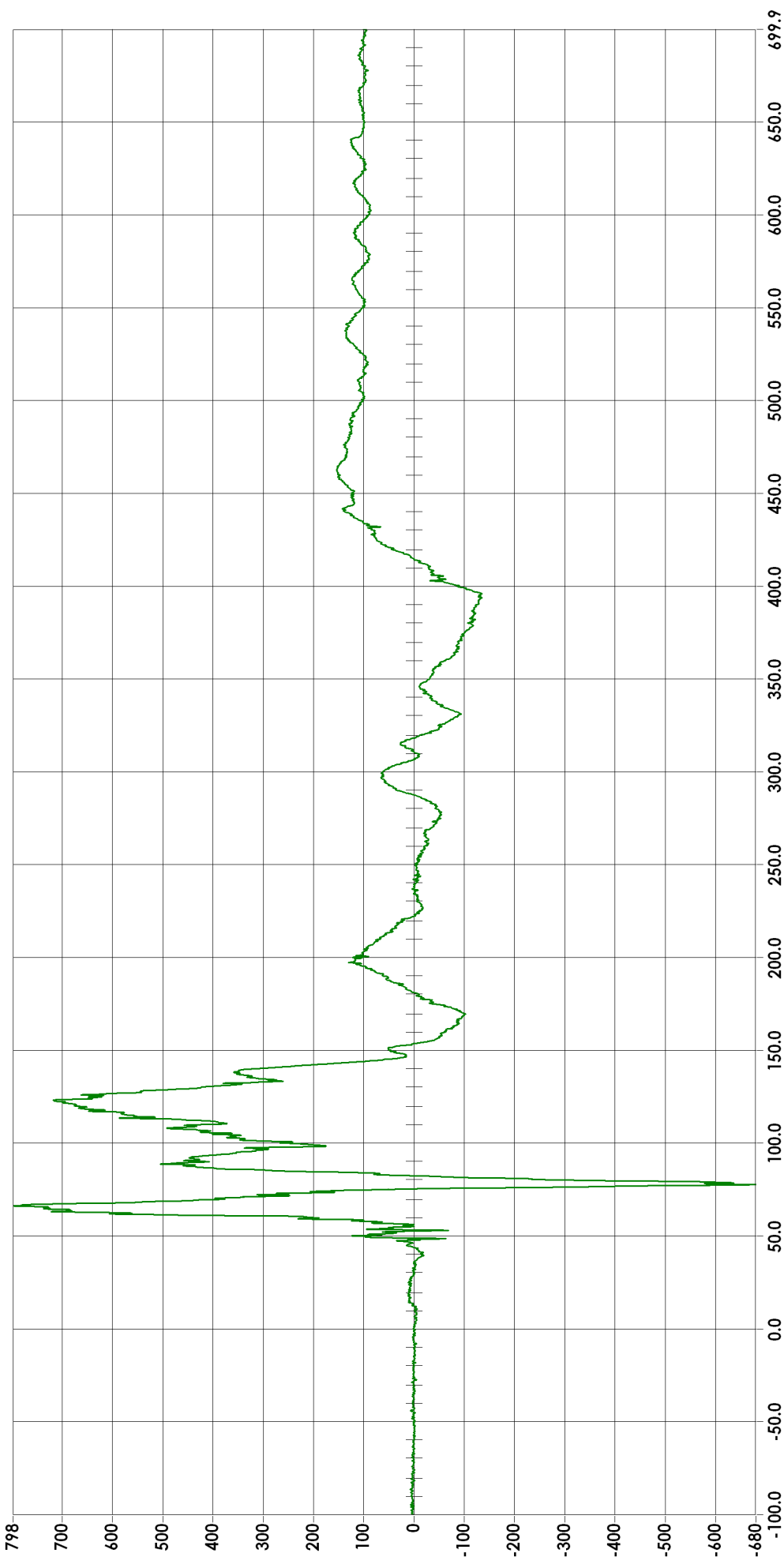


Max	96.40	NWM	at	165.20	msec
Min	-96.57	NWM	at	80.40	msec

SOI004 Plot 042

Test ID	SOI004	Filter	CFC600		
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	FMRR
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	Denton 1914A
		Prefrigger Points	1250	Serial Number	1914A_261_FX

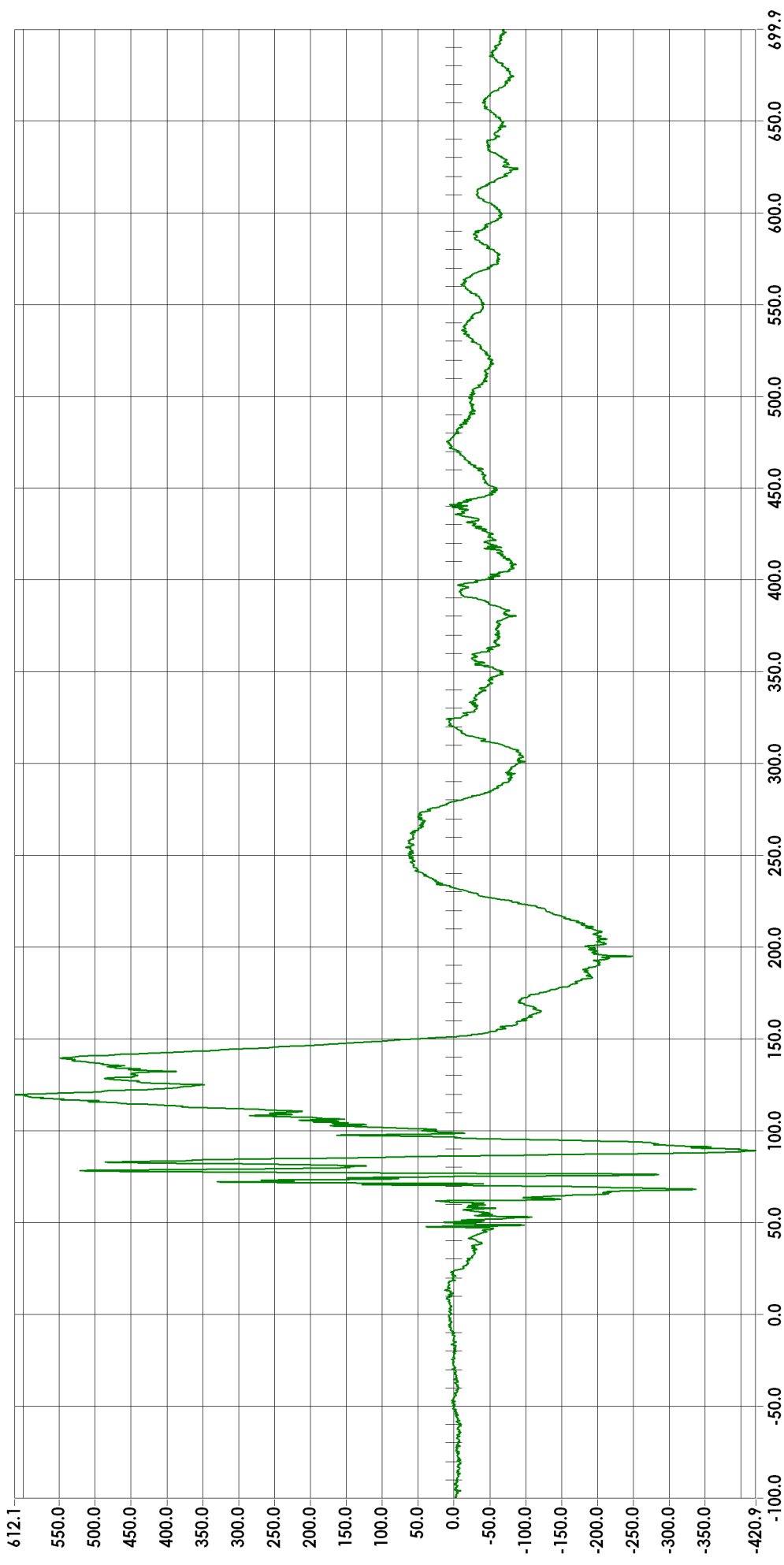
Driver right femur (x) force XL



Max	797.59	at	66.24 msec	Neuroscience Research Labs
Min	-680.44	at	77.76 msec	5000 West National Ave
				Research 151
				Milwaukee, WI 53295

Test ID	SOI004	Filter	CFC600	Sensor Location	FMRR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 1914A
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1914A_261_FY
		Pretrigger Points	1250		

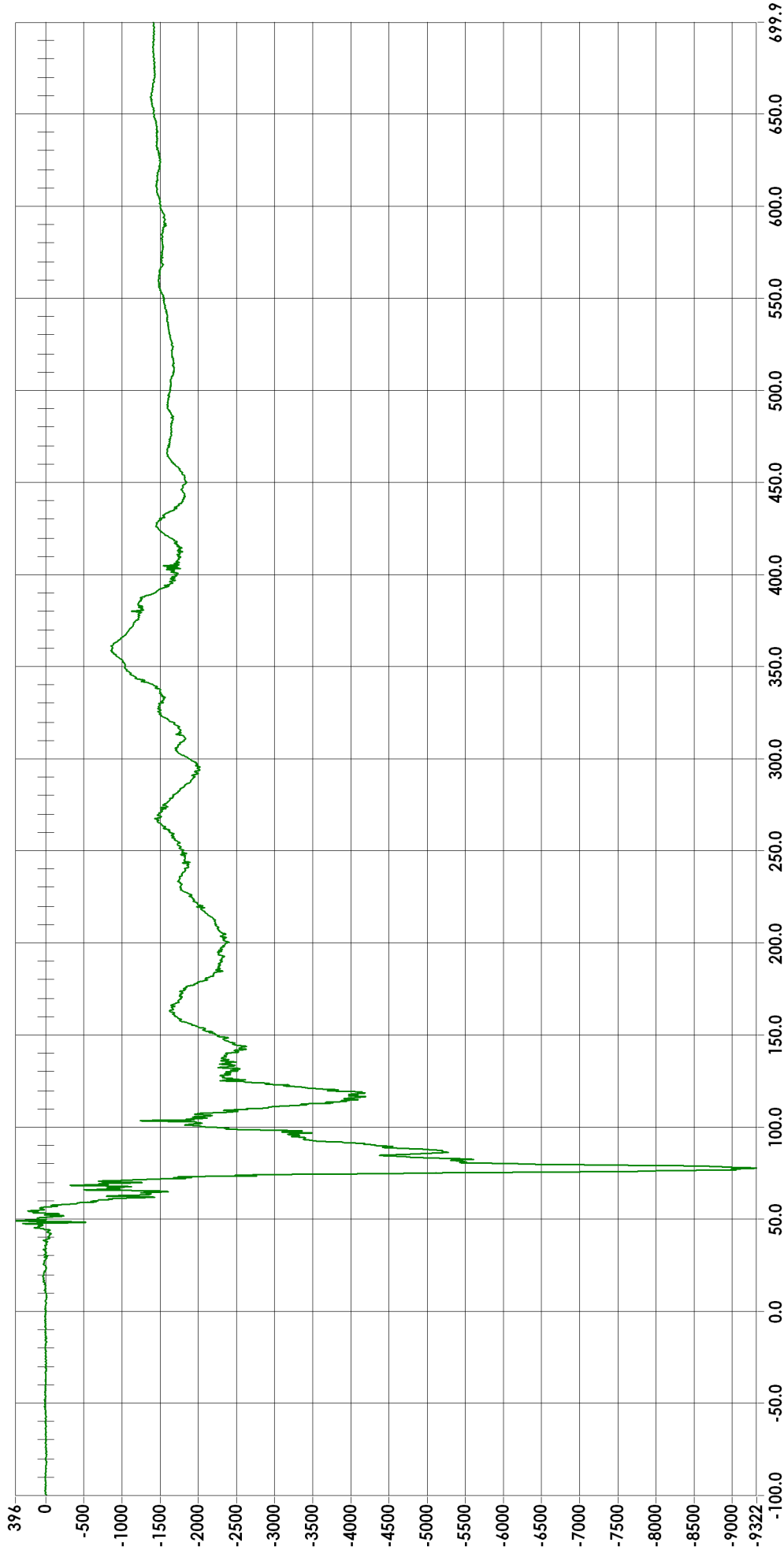
Driver right femur (y) force YL



Max	612.06	at	119.68	msec	Neuroscience Research Labs
Min	-420.89	at	89.28	msec	5000 West National Ave
					Research 151
					Milwaukee, WI 53295

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRR
		Sensor Info	Denton 1914A
		Serial Number	1914A_261_FZ

Driver right femur (z) force ZL



Time (msec)

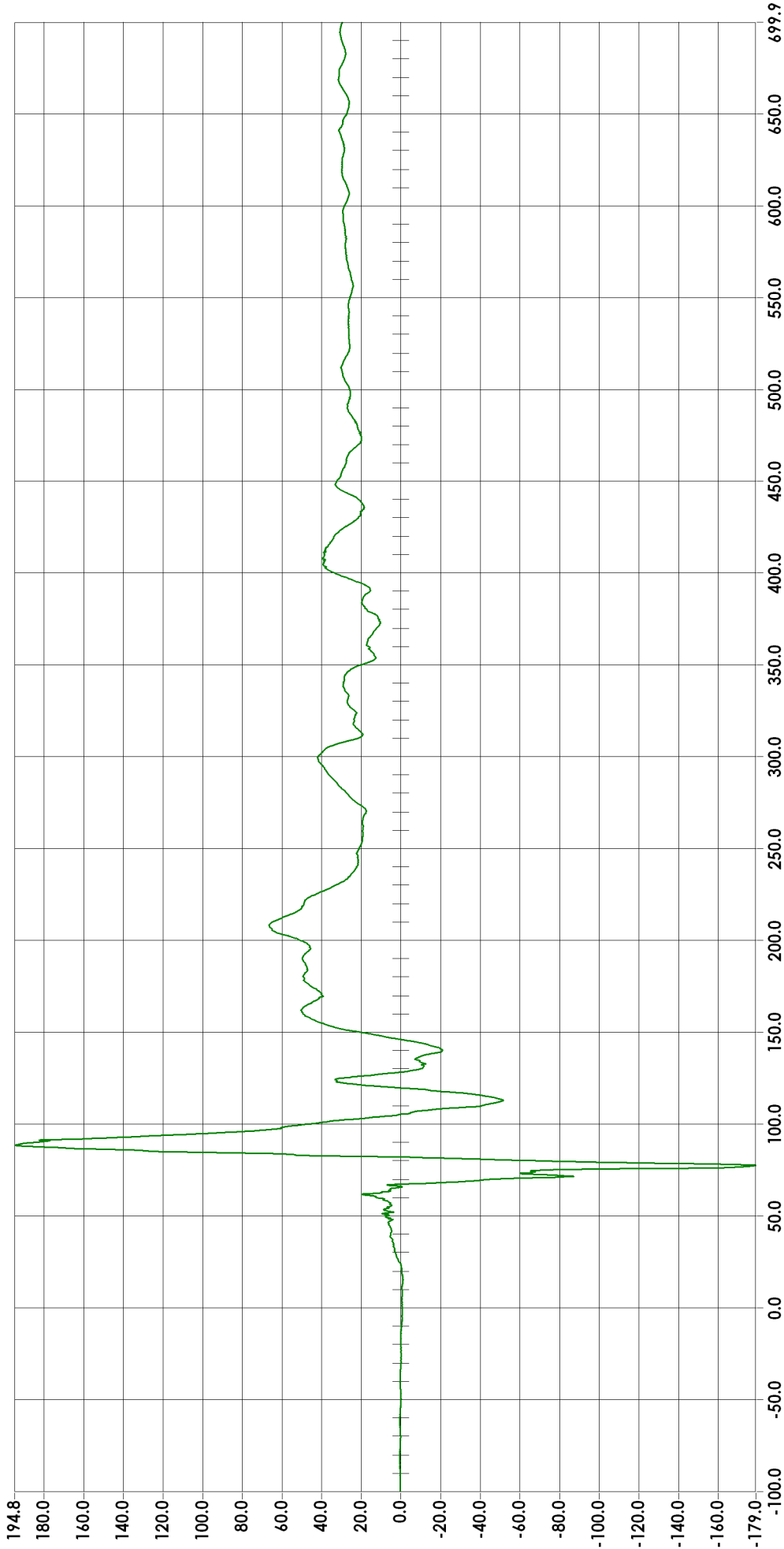
Max	395.96	at	49.20 msec
Min	-9321.67	at	77.76 msec

SO1004 Plot 045

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRR
		Sensor Info	Denton 1914A
		Serial Number	1914A_261_MX

Driver right femur (x) moment XL

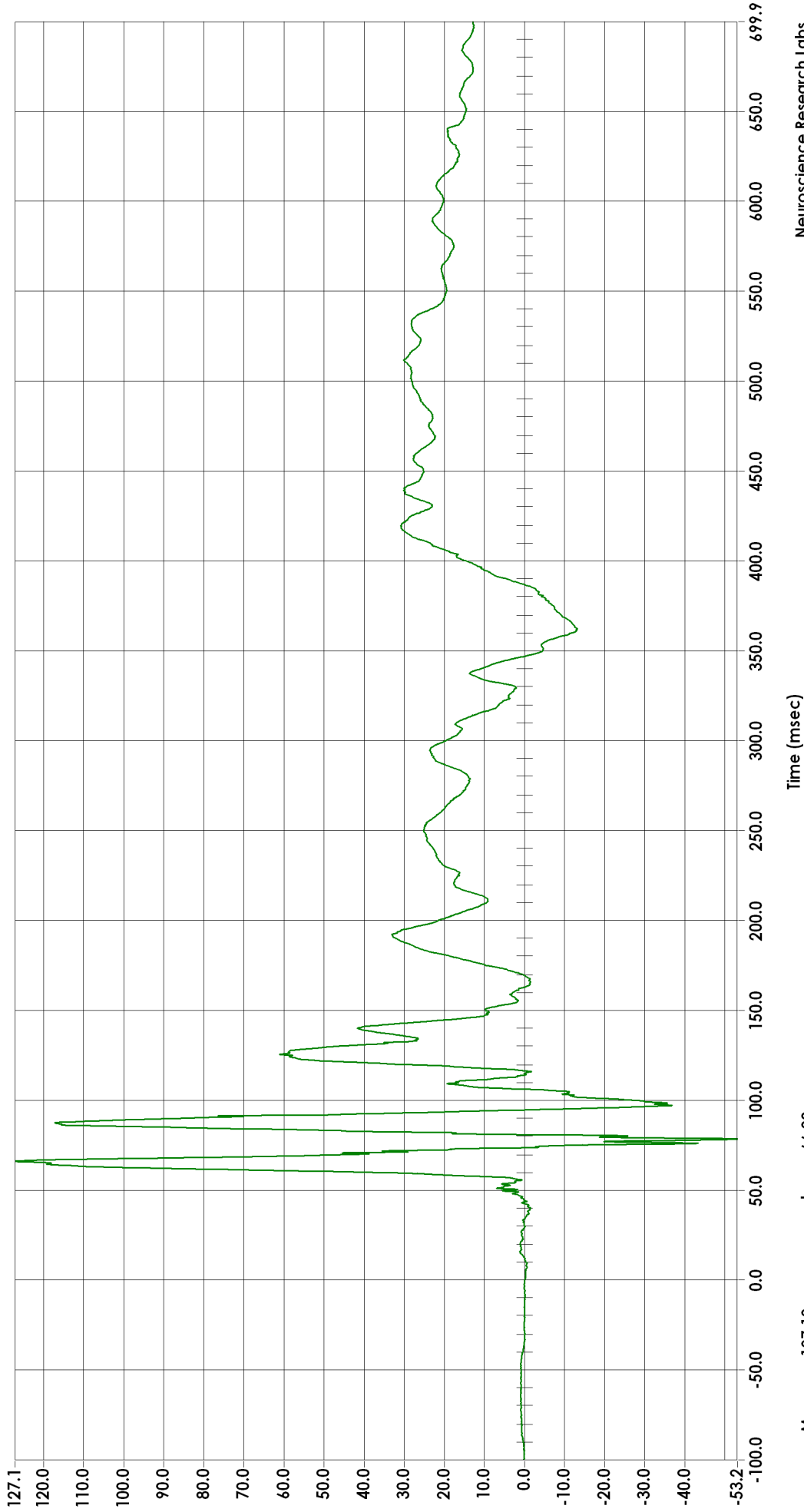


Max	194.81	at	88.56 msec
Min	-179.05	at	77.60 msec

Time (msec)

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRR
		Sensor Info	Denton 1914A
		Serial Number	1914A_261_MY

Driver right femur (y) moment YL

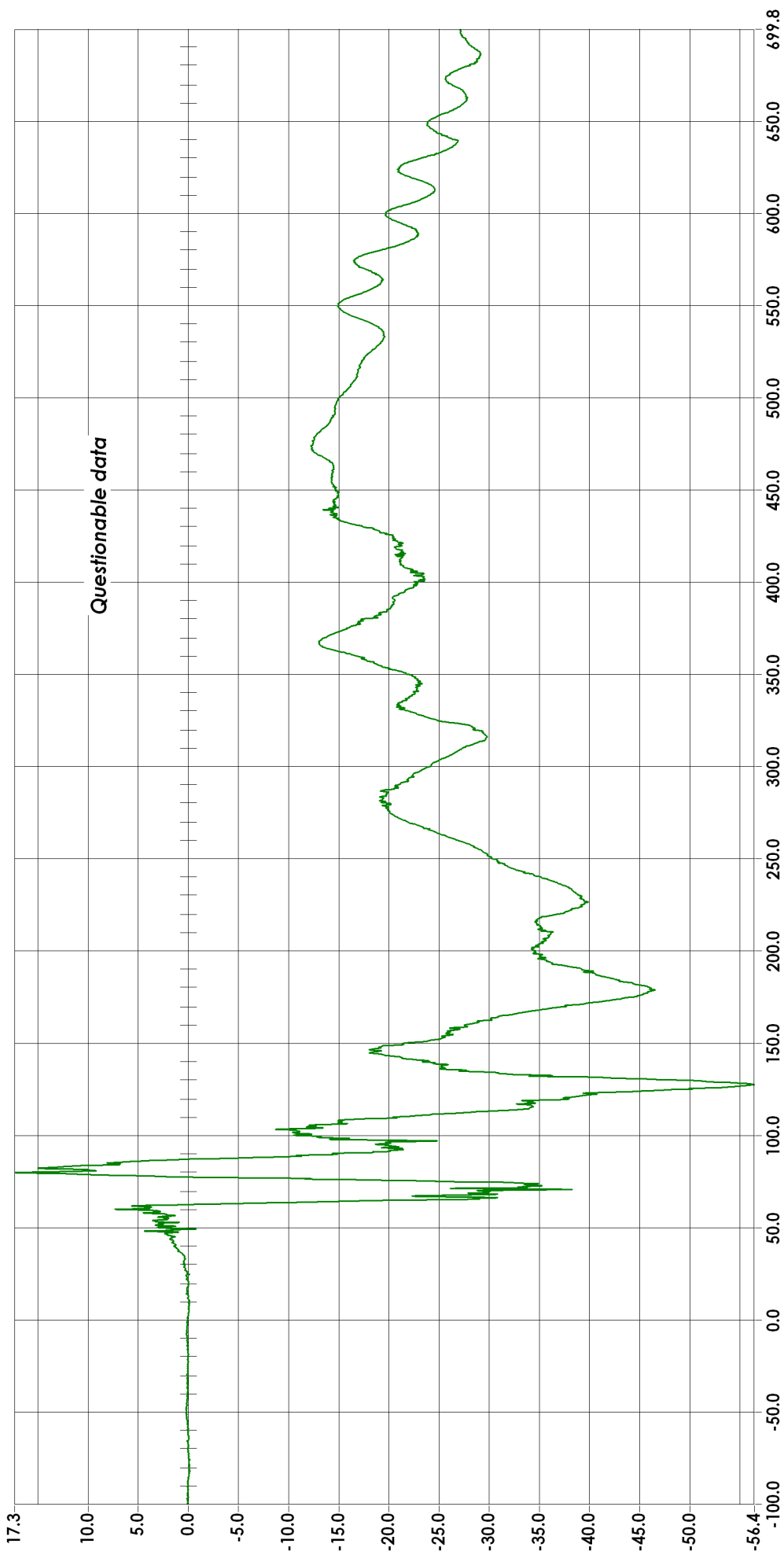


Max	127.12	at	66.00	msec
Min	-53.16	at	78.40	msec

SO1004 Plot 047

Test ID	SOI004	Filter	CFC600		
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	FMRR
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	Denton 1914A
		Prefrigger Points	1250	Serial Number	1914A_261_MZ

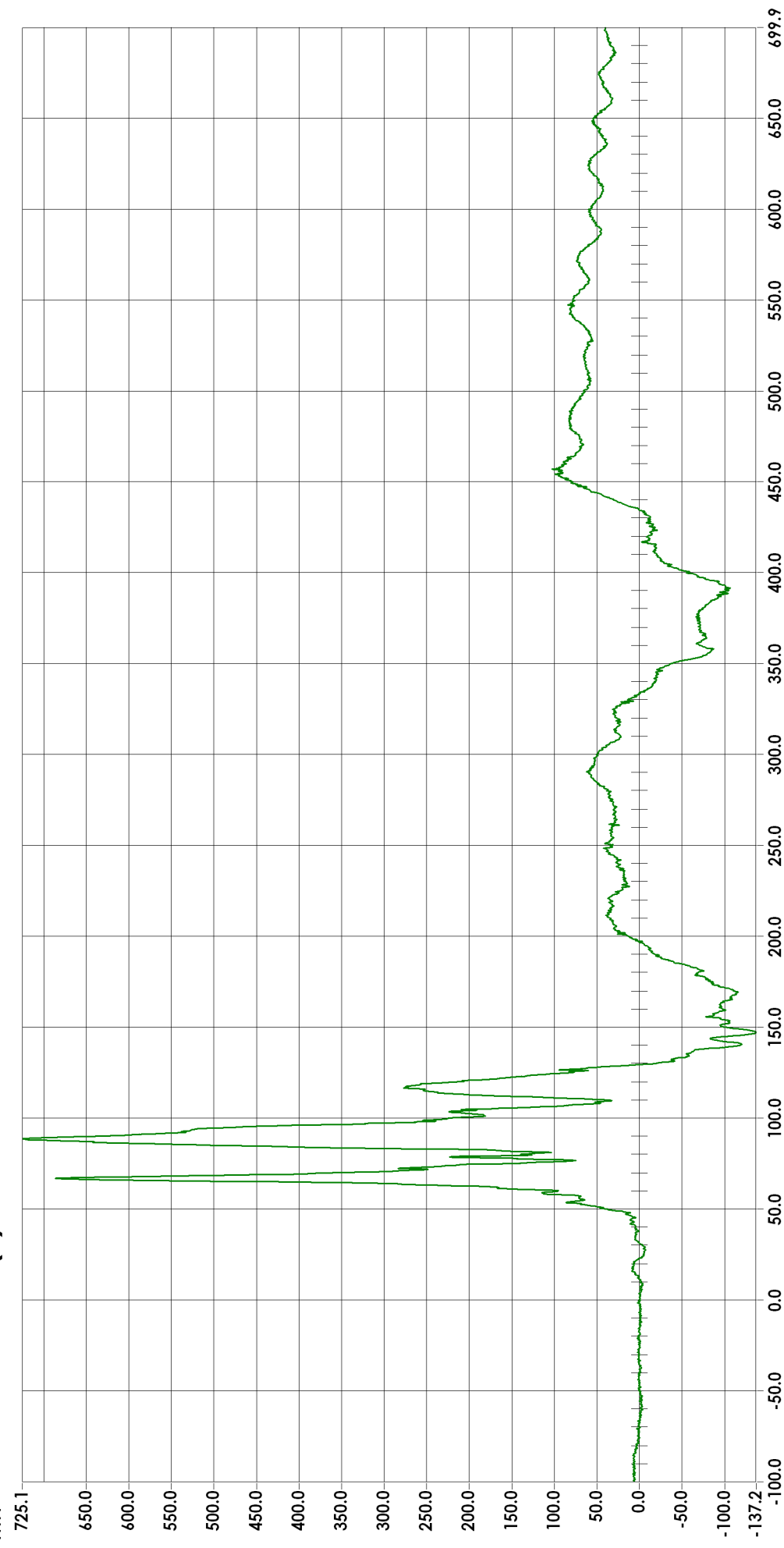
Driver right femur (z) moment ZL





Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	FMRL
		Sensor Info	Denton 1914A
		Serial Number	1914A_376_FX

Driver left femur (x) force XL



Max	725.06	NWT	at	88.64	msec
Min	-137.23	NWT	at	147.20	msec

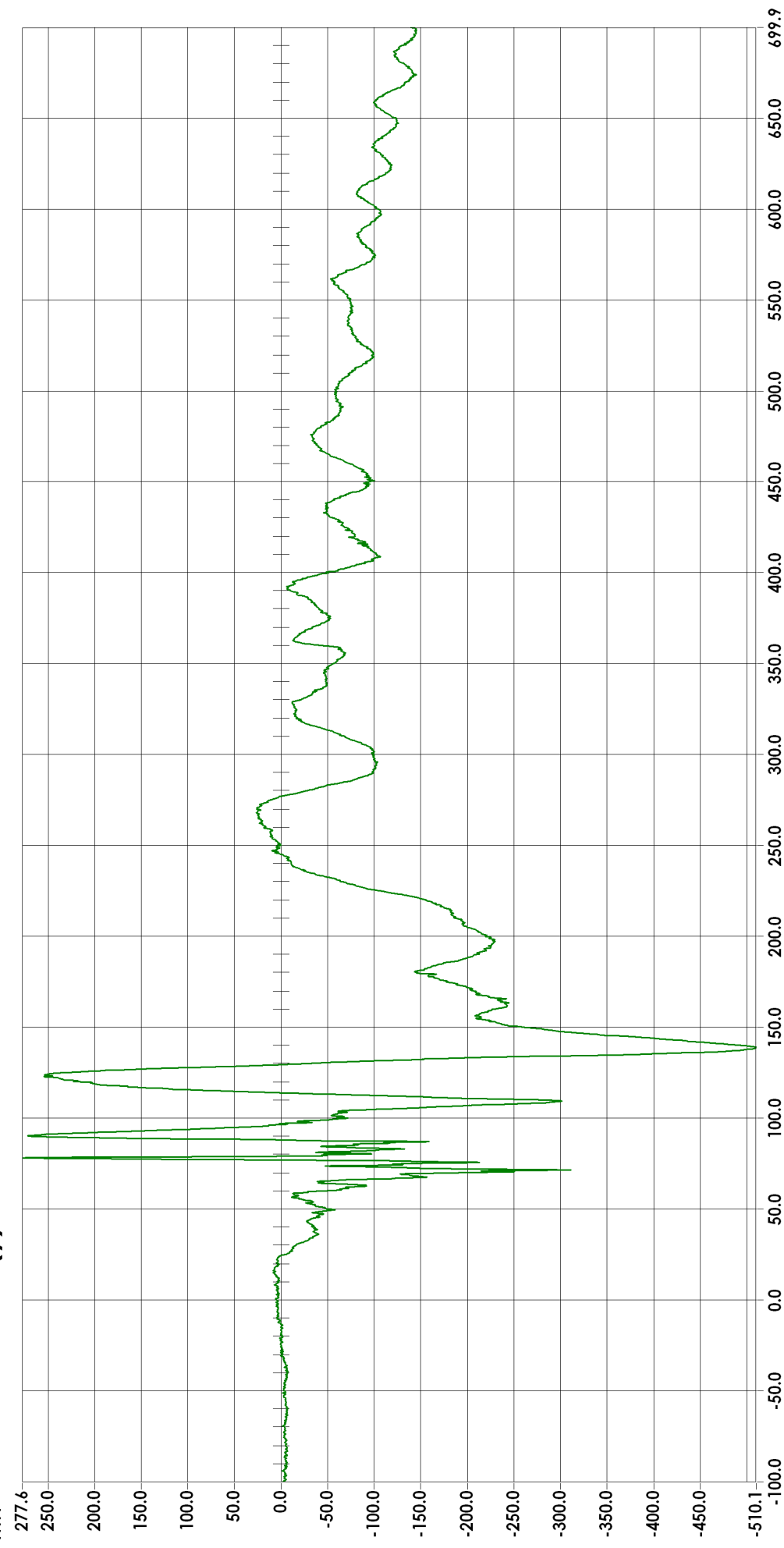
SOI004 Plot 049

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	FMRL
		Sensor Info	Denton 1914A
		Serial Number	1914A_376_FY

Driver left femur (y) force YL



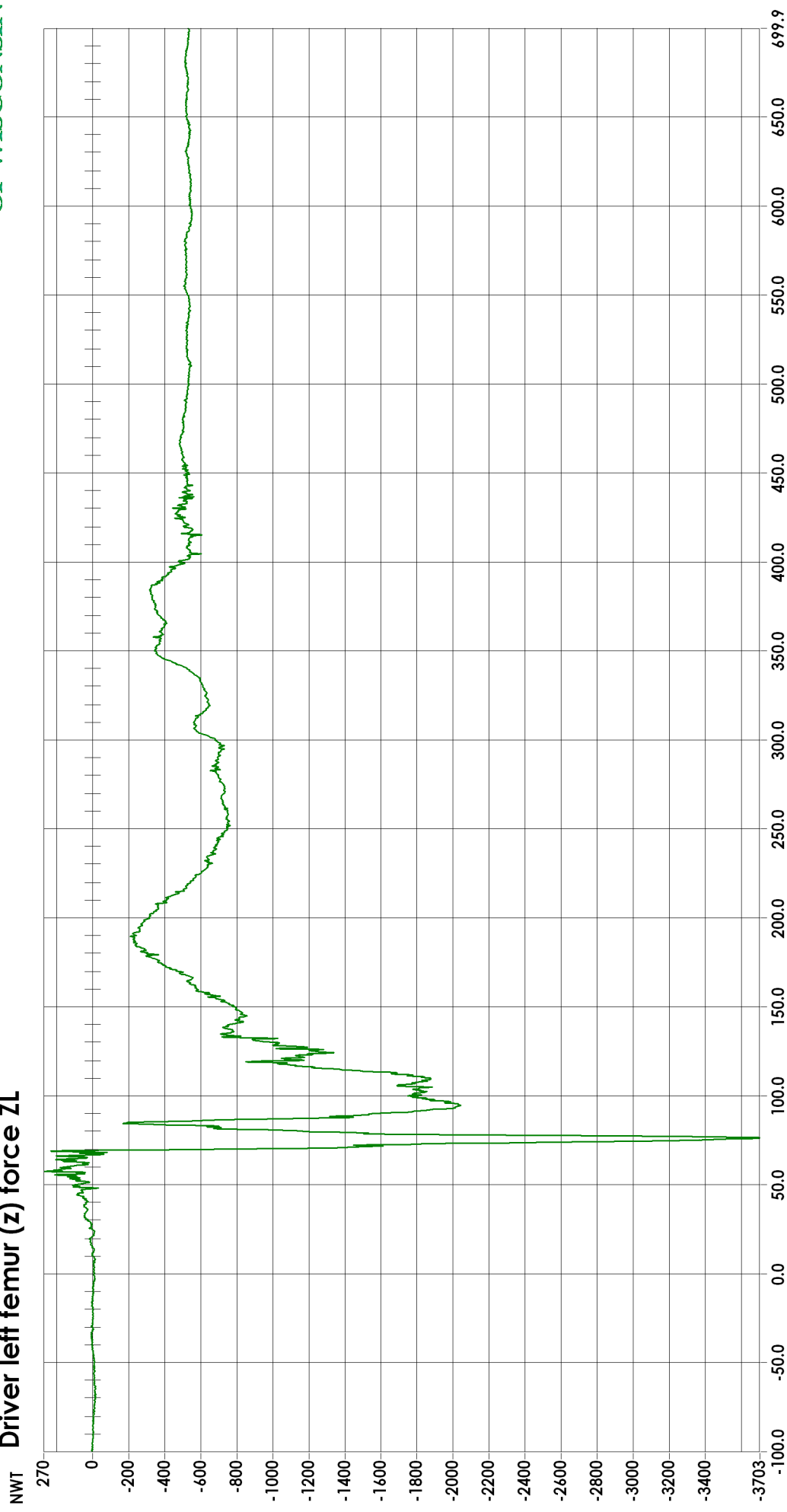
Max	277.62	NWT	at	78.16	msec
Min	-510.12	NWT	at	138.96	msec

SOI004 Plot 050

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Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRL
		Sensor Info	Denton 1914A
		Serial Number	1914A_376_FZ

Driver left femur (z) force ZL



Time (msec)

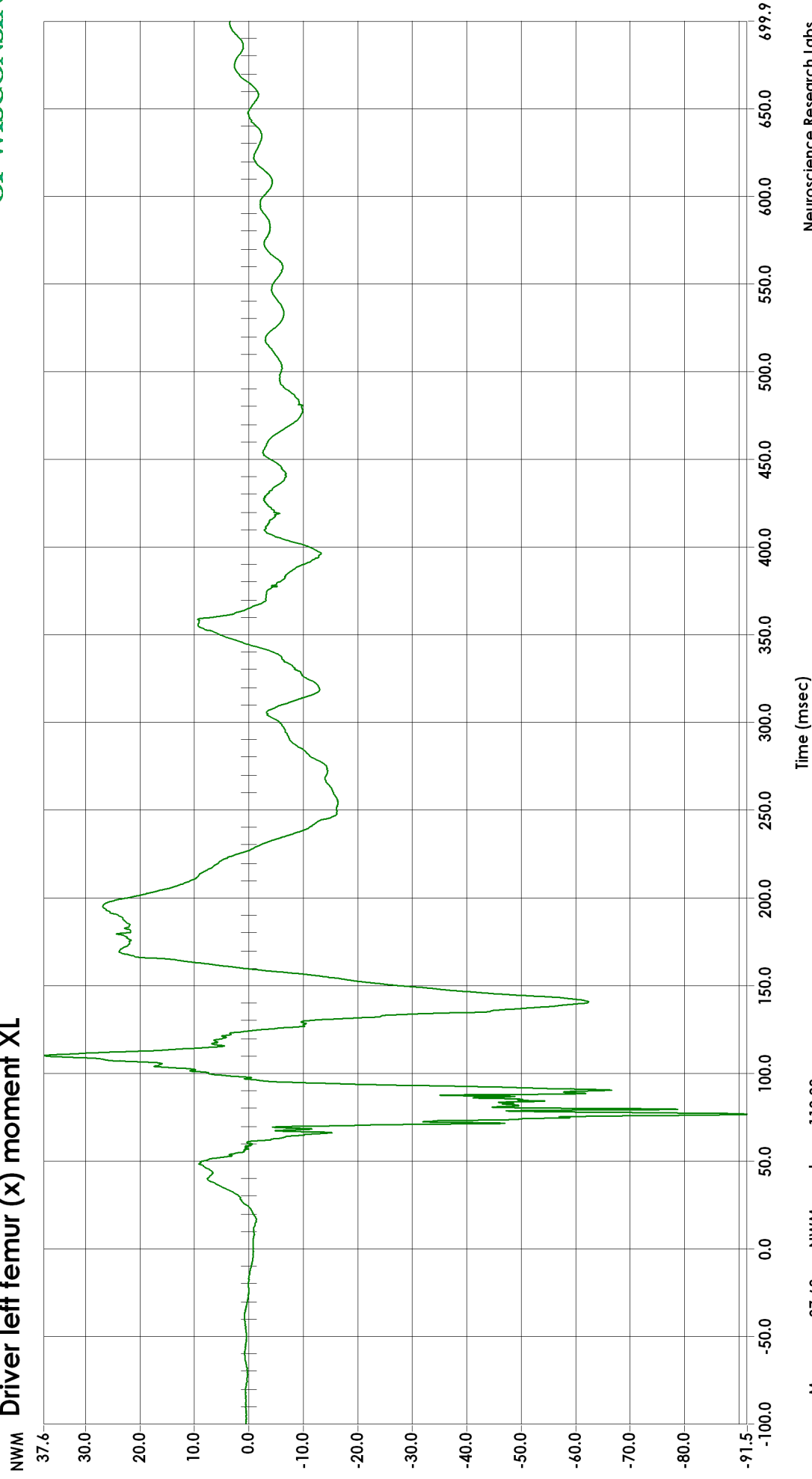
Max	270.22	NWT	at	57.52	msec
Min	-3702.84	NWT	at	76.40	msec

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SO1004 Plot 051

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRL
		Sensor Info	Denton 1914A
		Serial Number	1914A_376_MX

Driver left femur (x) moment XL

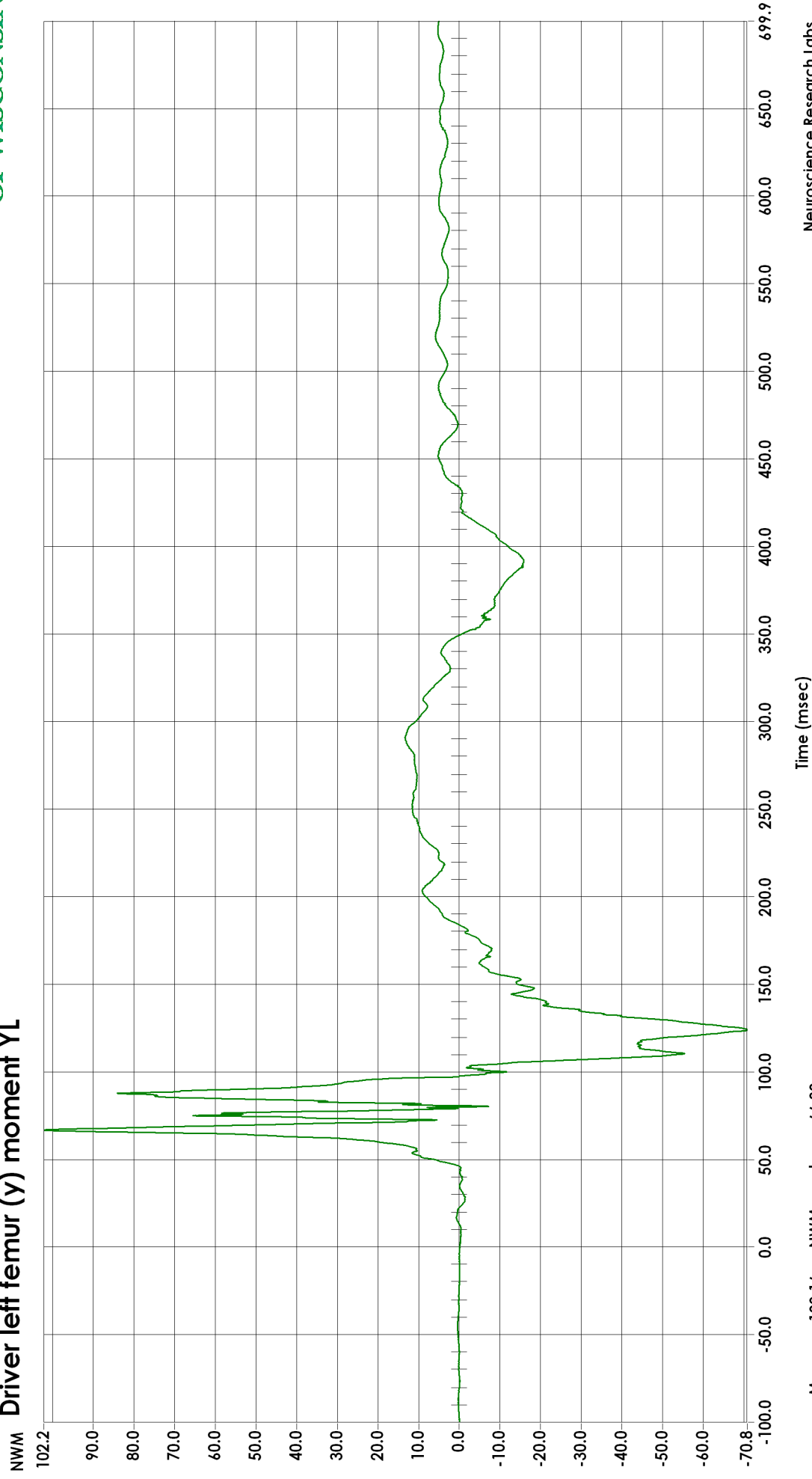


Max	37.63	NWM	at	110.08	msec
Min	-91.51	NWM	at	76.72	msec

SO1004 Plot 052

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRL
		Sensor Info	Denton 1914A
		Serial Number	1914A_376_MY

Driver left femur (y) moment YL

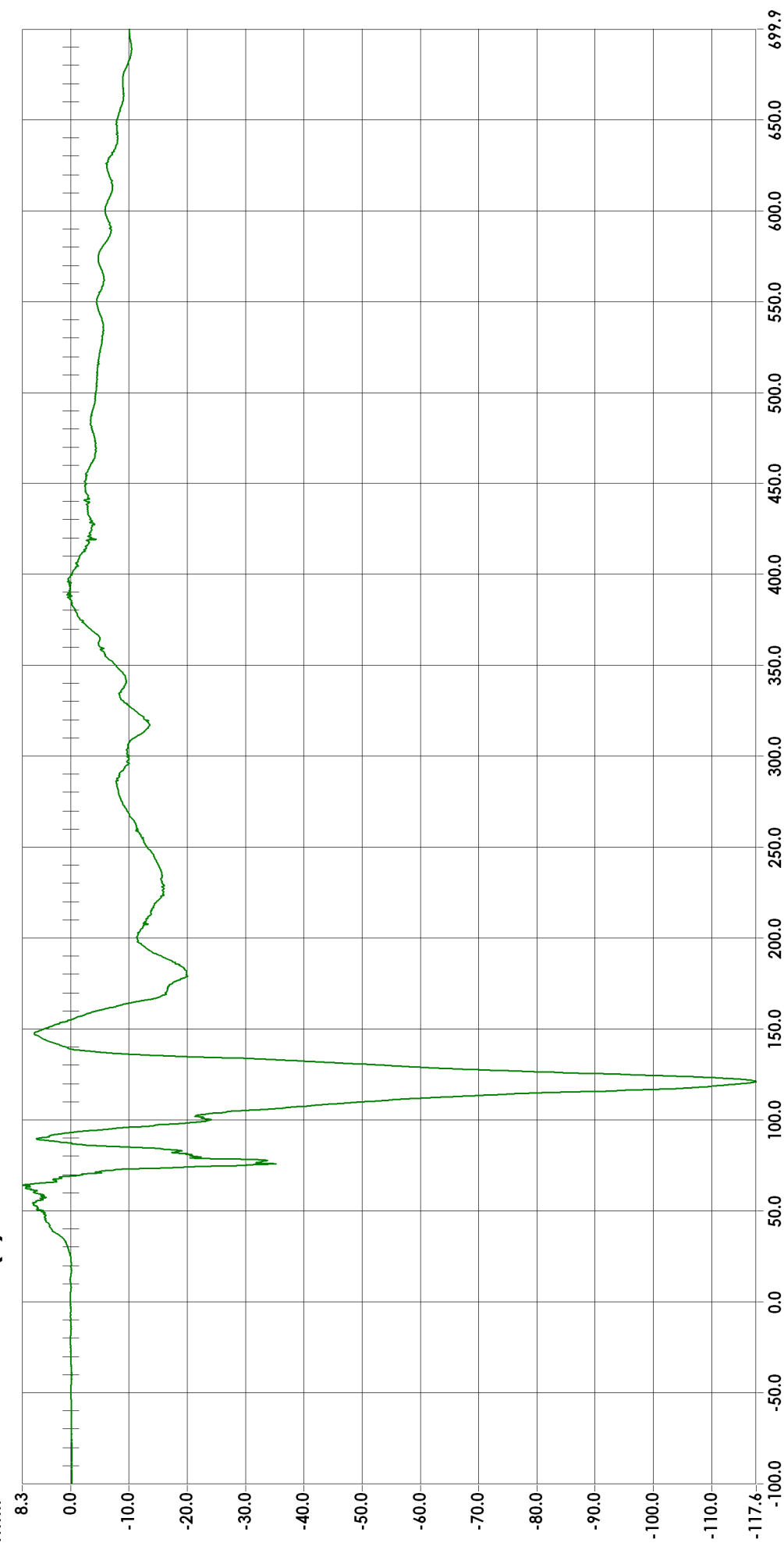


Max	102.16	NWM	at	66.80	msec
Min	-70.84	NWM	at	123.92	msec

SO1004 Plot 053

Test ID	SOI004	Filter	CFC600	Sensor Location	FMRL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 1914A
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1914A_376_MZ
		Prefrigger Points	1250		

Driver left femur (z) moment ZL



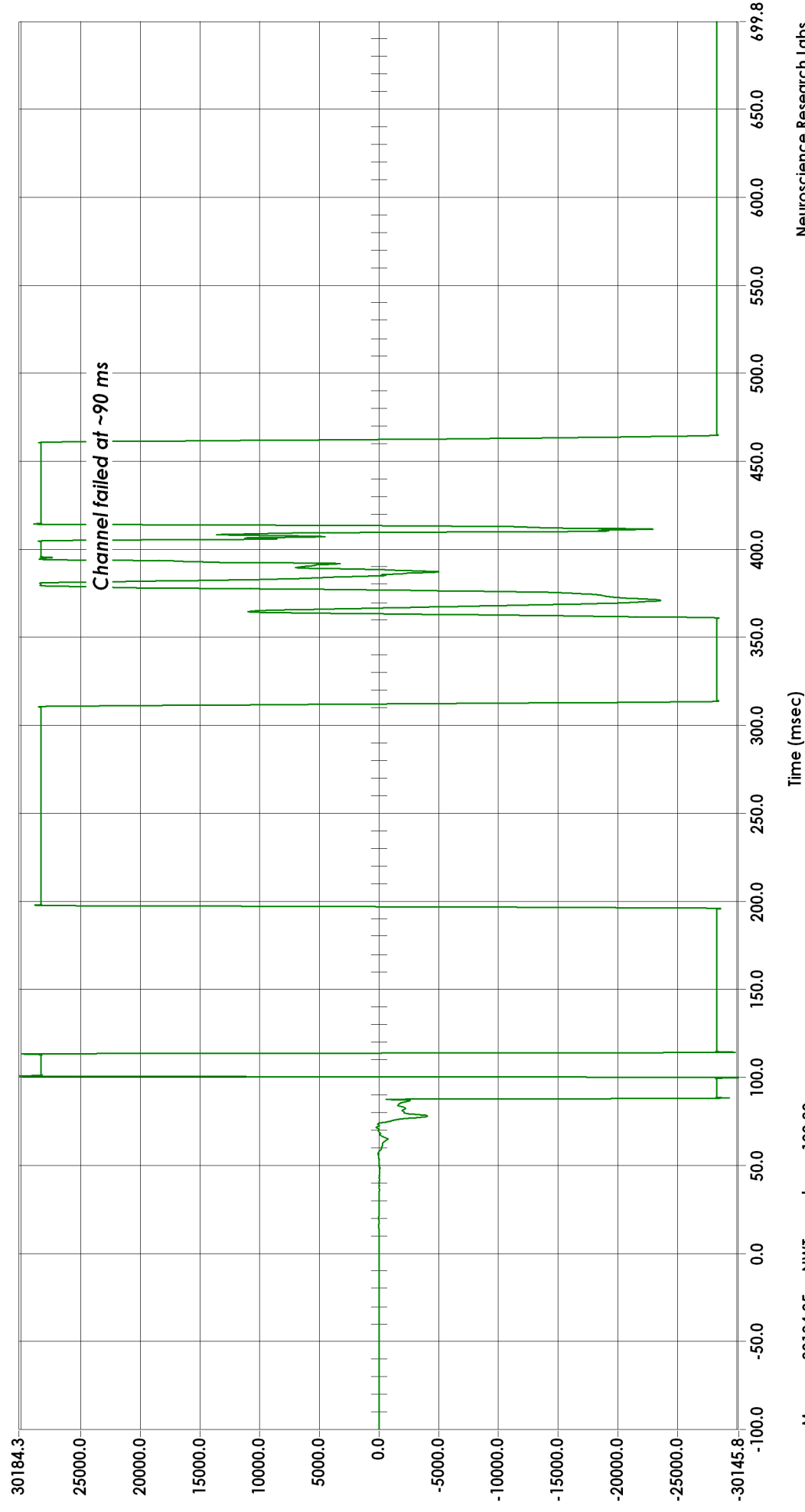
Max	8.29	NWM	at	64.16	msec
Min	-117.65	NWM	at	121.20	msec

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Test ID	SOI004	Filter	CFC600	Sensor Location	PVAR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 3455J
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	3455J_79_FX

NWT Driver right acetabular (x) force XL



Max	30184.35	NWT	at	100.80	msec
Min	-30145.79	NWT	at	99.92	msec

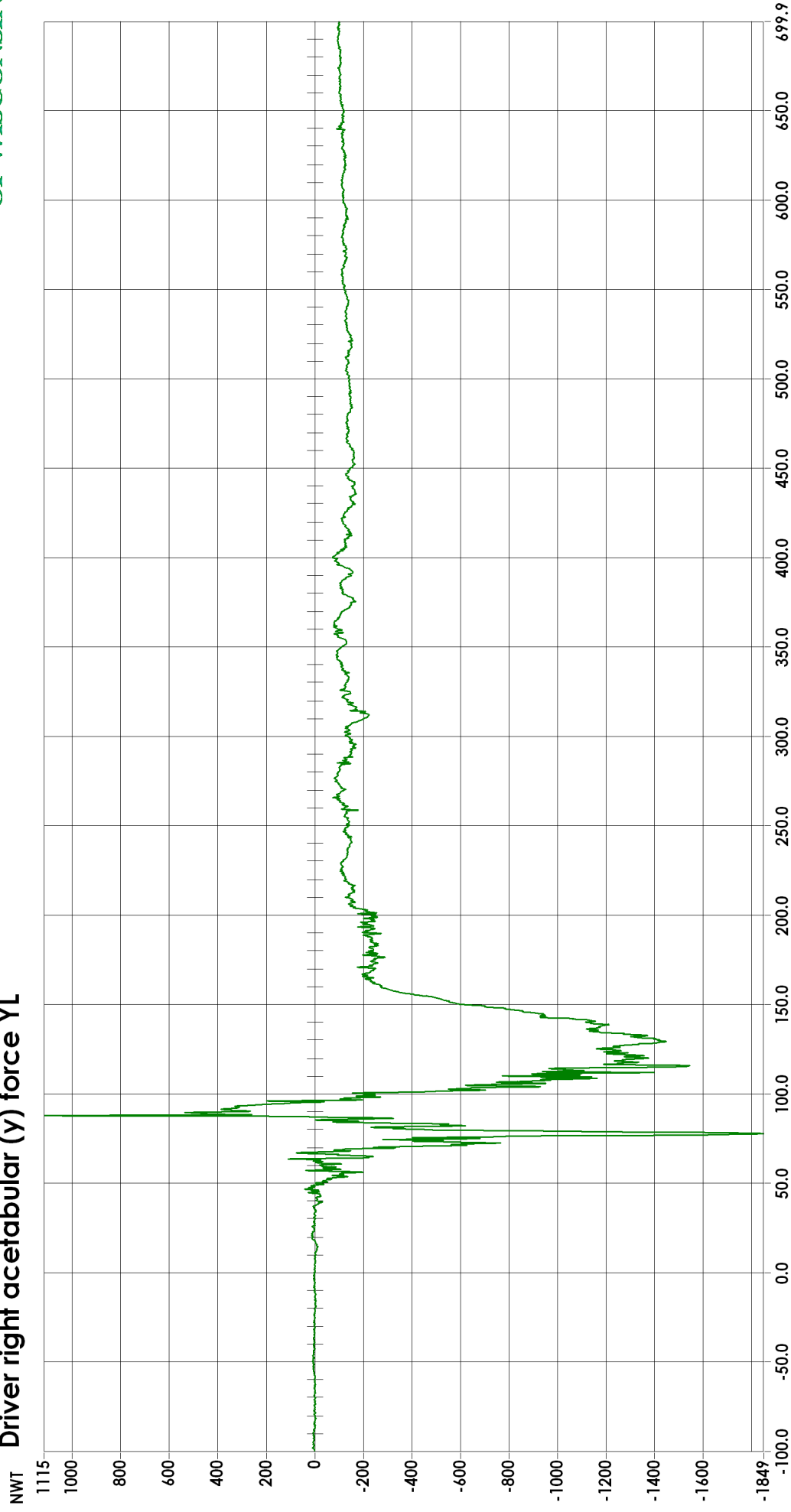
SOI004 Plot 055

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	PVAR
		Sensor Info	Denton 3455J
		Serial Number	3455J_79_FY

Driver right acetabular (y) force YL



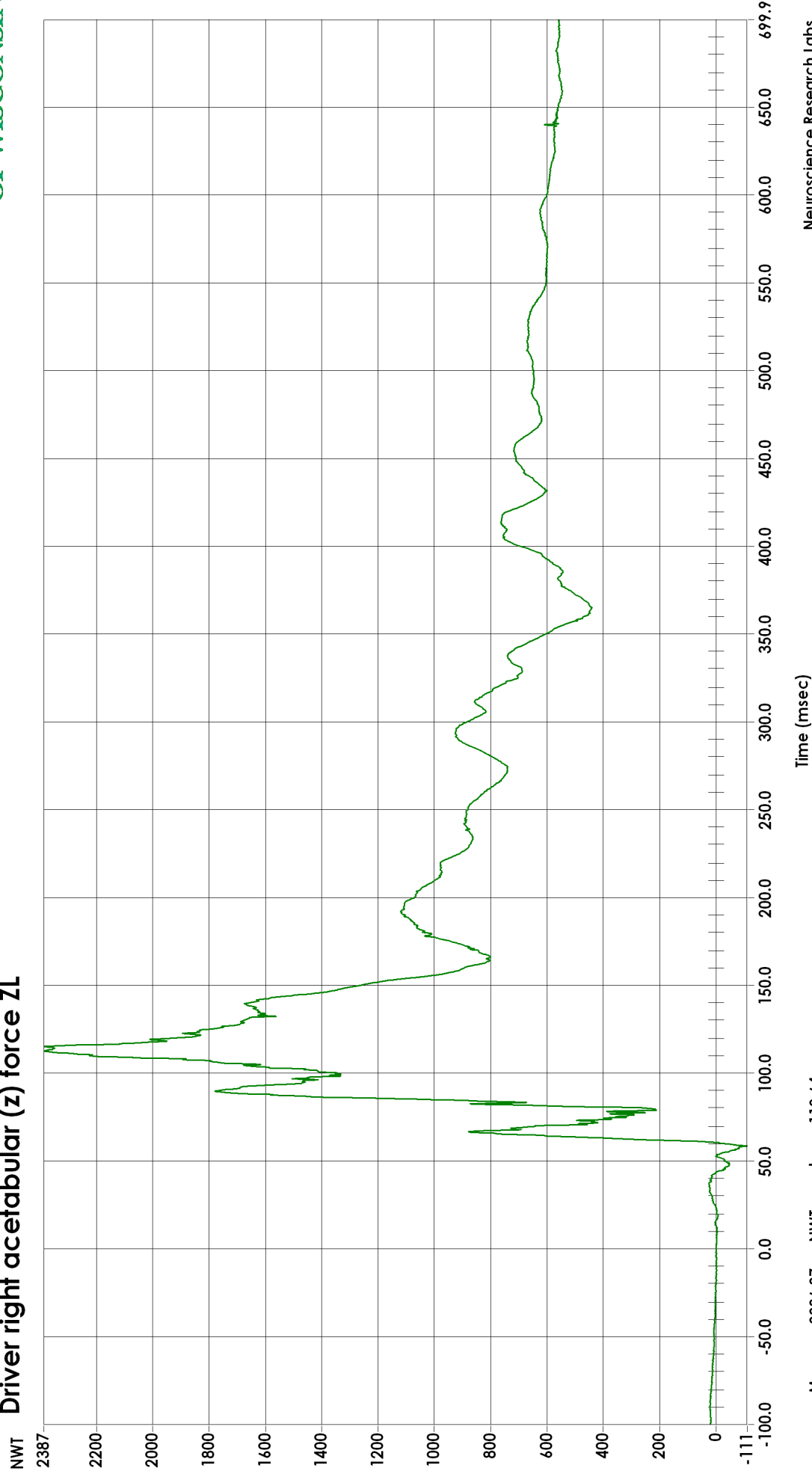
Max	1115.42	NWT	at	87.84	msec
Min	-1849.49	NWT	at	77.84	msec

Time (msec)

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	PVAR
		Sensor Info	Denton 3455J
		Serial Number	3455J_79_FZ

Driver right acetabular (z) force ZL



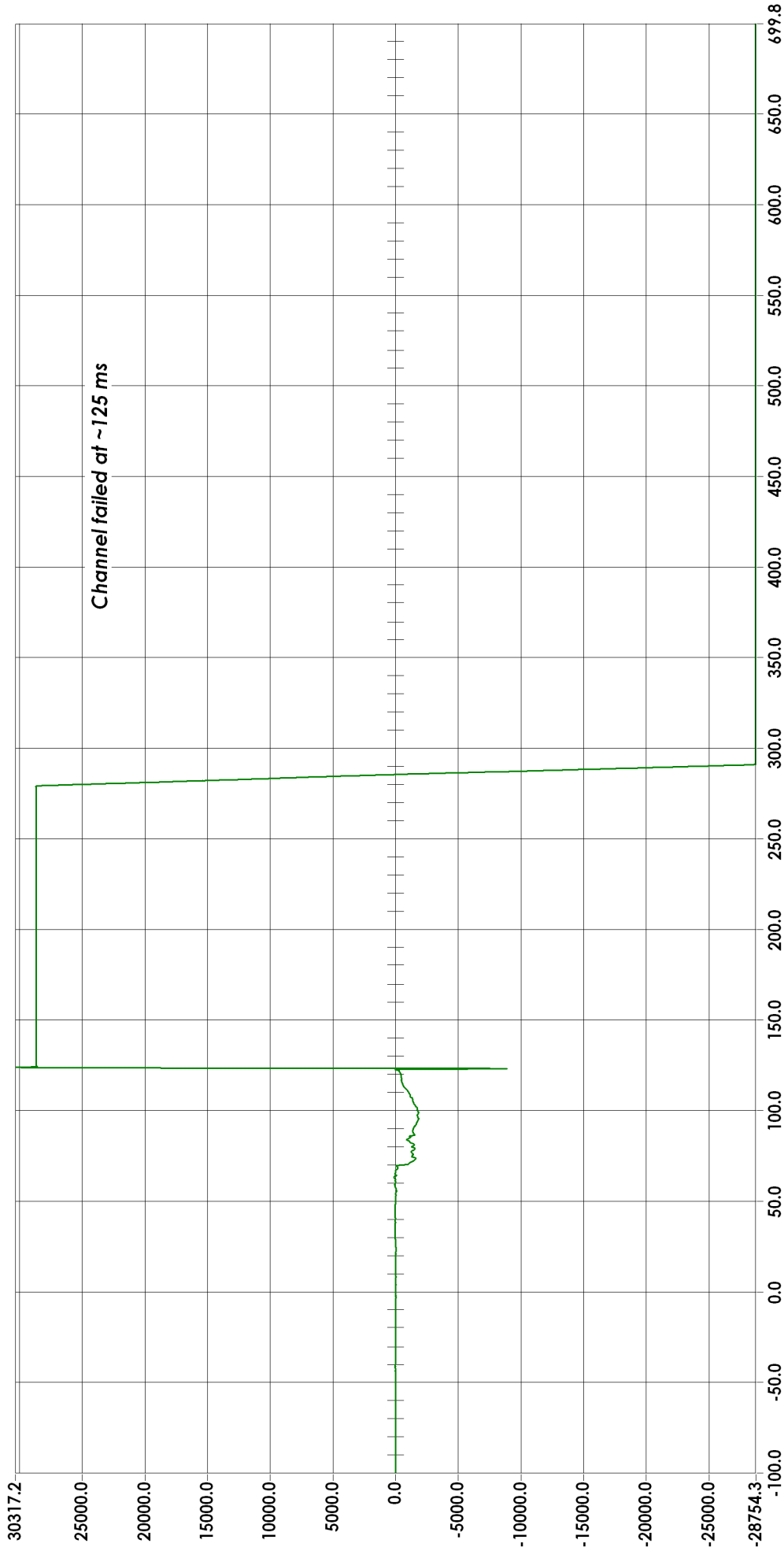
Max 2386.87 NWT at 112.64 msec
Min -111.39 NWT at 58.56 msec

SOI004 Plot 057



Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	PVAL
		Sensor Info	Denton 3855
		Serial Number	3855_83_FX

NWT Driver left acetabular (x) force XL



Time (msec)

Max	30317.17	NWT	at	123.84	msec
Min	-28754.34	NWT	at	291.20	msec

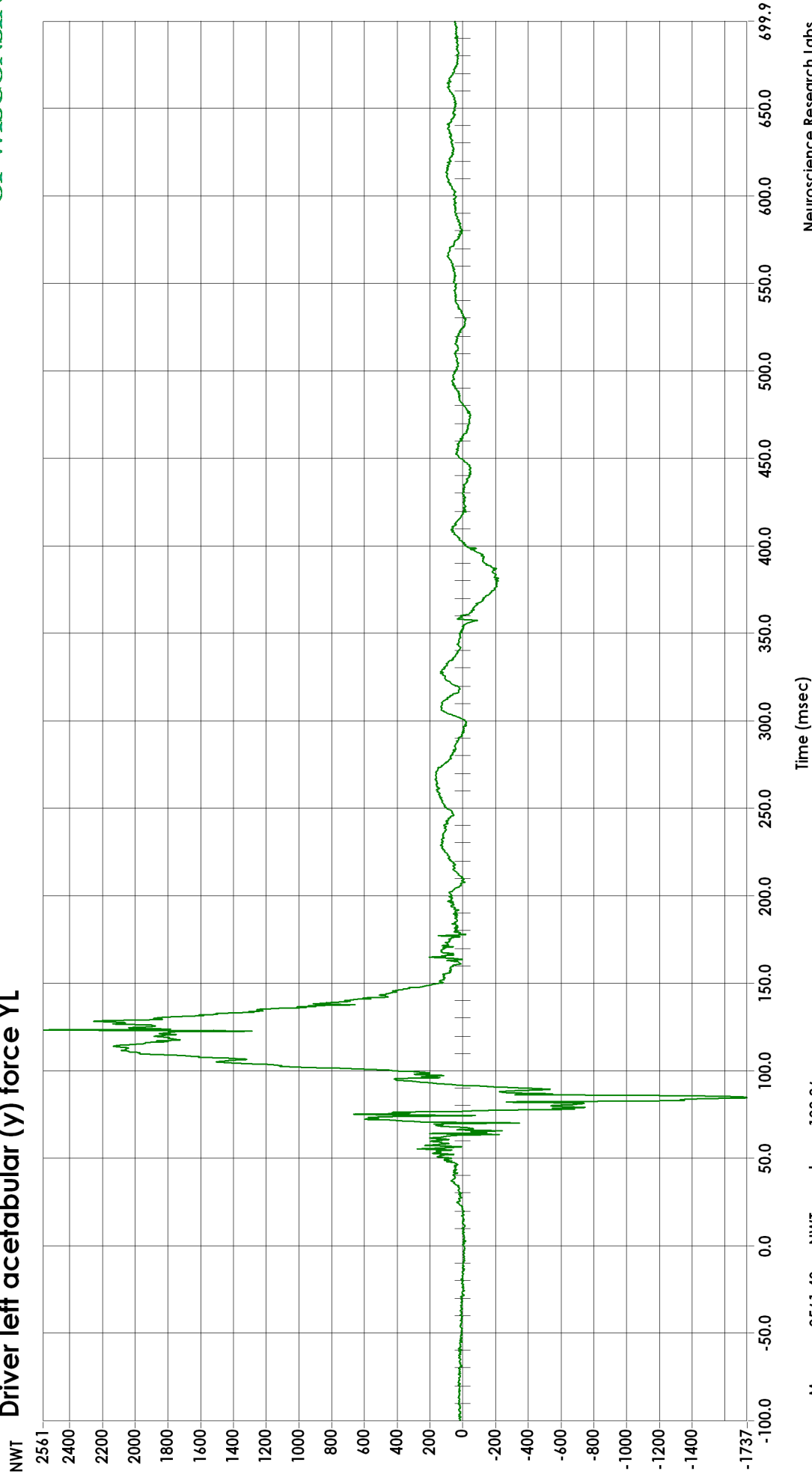
SO1004 Plot 058

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	PVAL
		Sensor Info	Denton 3855
		Serial Number	3855_83_FY

Driver left acetabular (y) force YL



Max	2561.49	NWT	at	123.36	msec
Min	-1736.67	NWT	at	84.64	msec

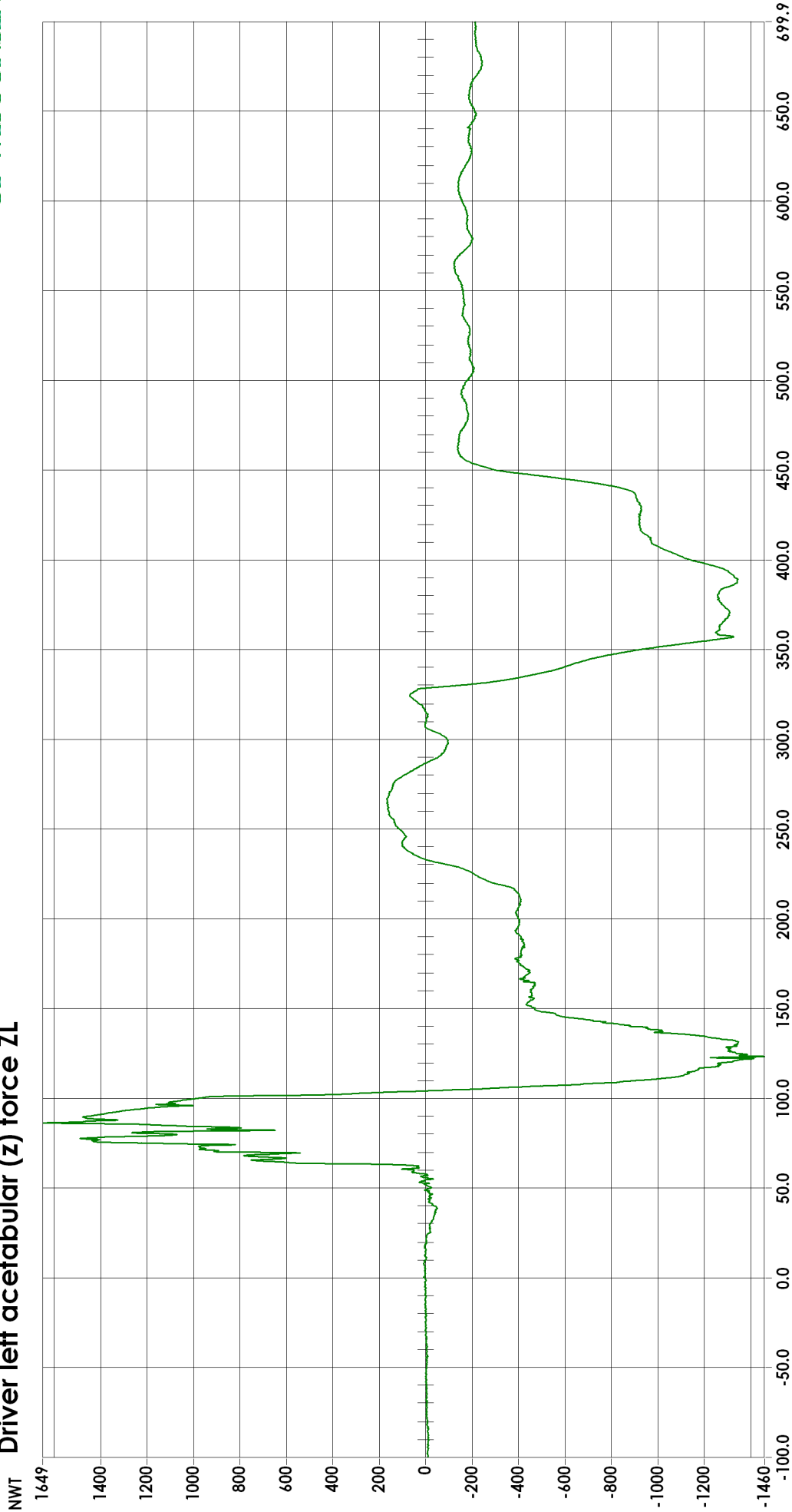
SOI004 Plot 059

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Test ID	SO1004	Filter	CFC600	Sensor Location	PVAL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 3855
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	3855_83_FZ
		Pretrigger Points	1250		

Driver left acetabular (z) force ZL



Time (msec)

Max	1649.02	NWT	at	86.32	msec
Min	-1460.17	NWT	at	123.36	msec

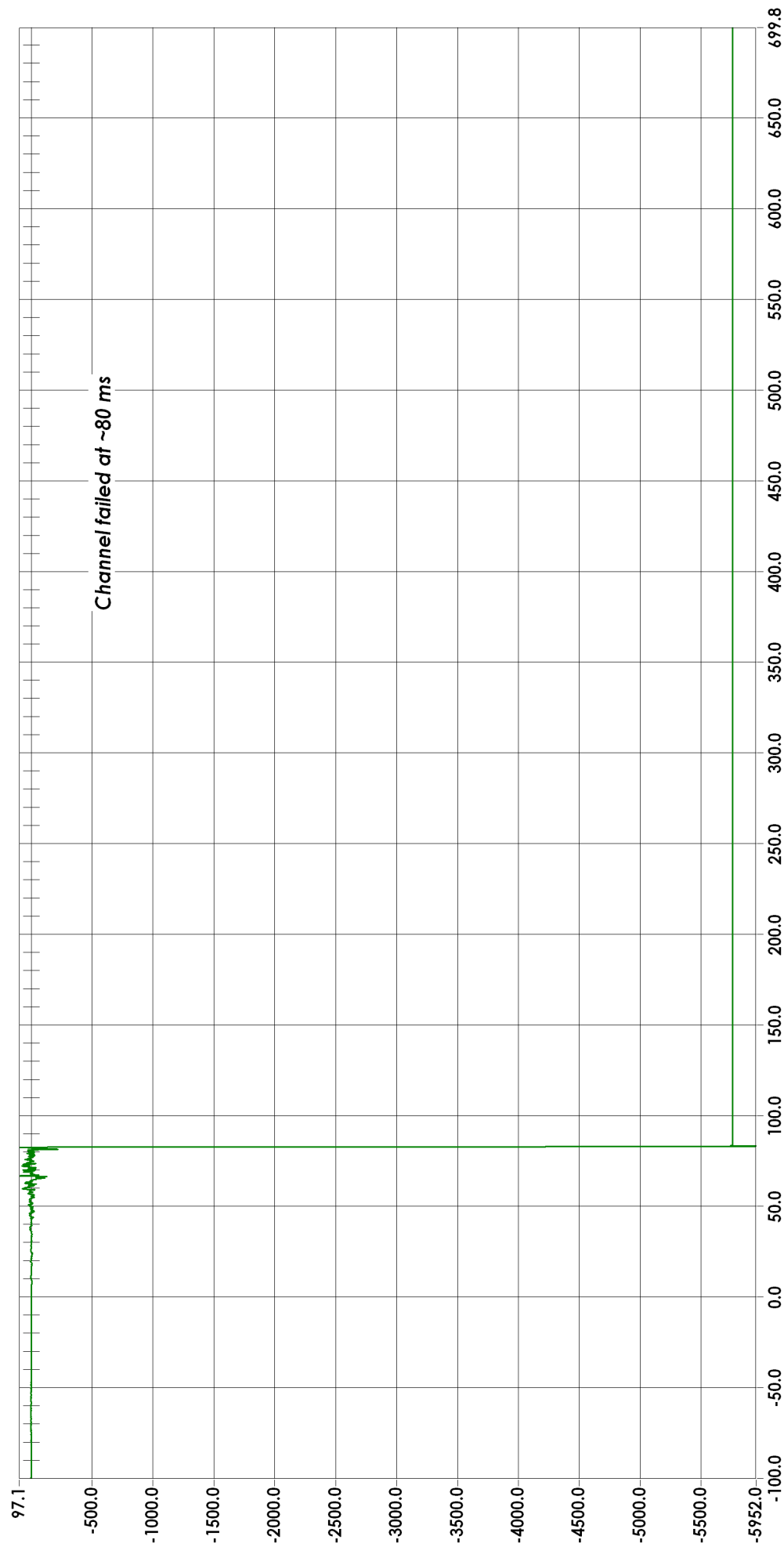
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SO1004 Plot 060



Test ID	SOI004	Filter	CFC1000	Sensor Location	NKCA
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 6005
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	6005J_78

NWT Driver anterior spring (z) force ZL



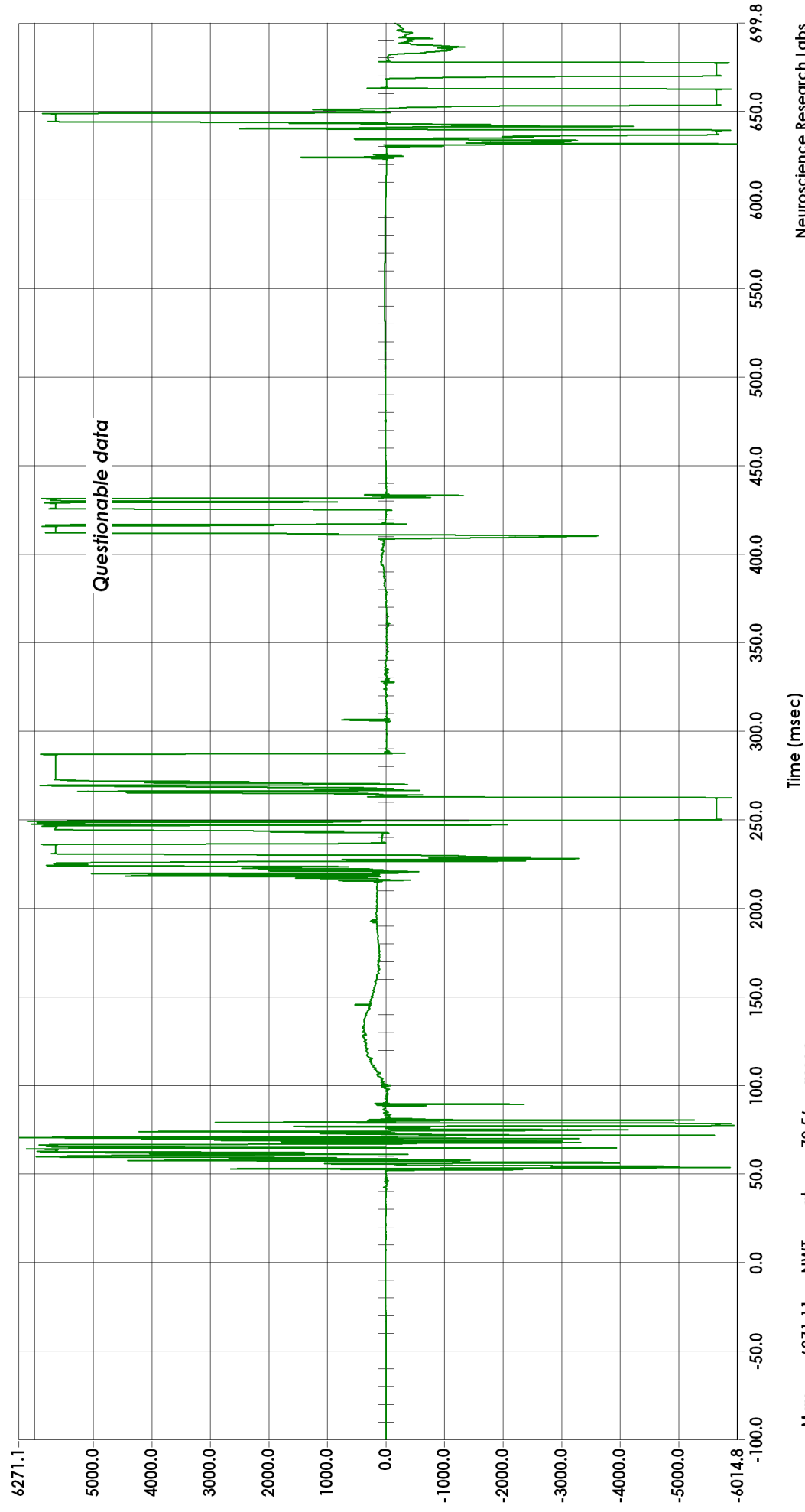
Max	97.06	NWT	at	82.48	msec
Min	-5952.01	NWT	at	83.20	msec

SOI004 Plot 06.1

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NKCP
		Sensor Info	Denton 6005
		Serial Number	6005J_77

Driver posterior spring (z) force ZL

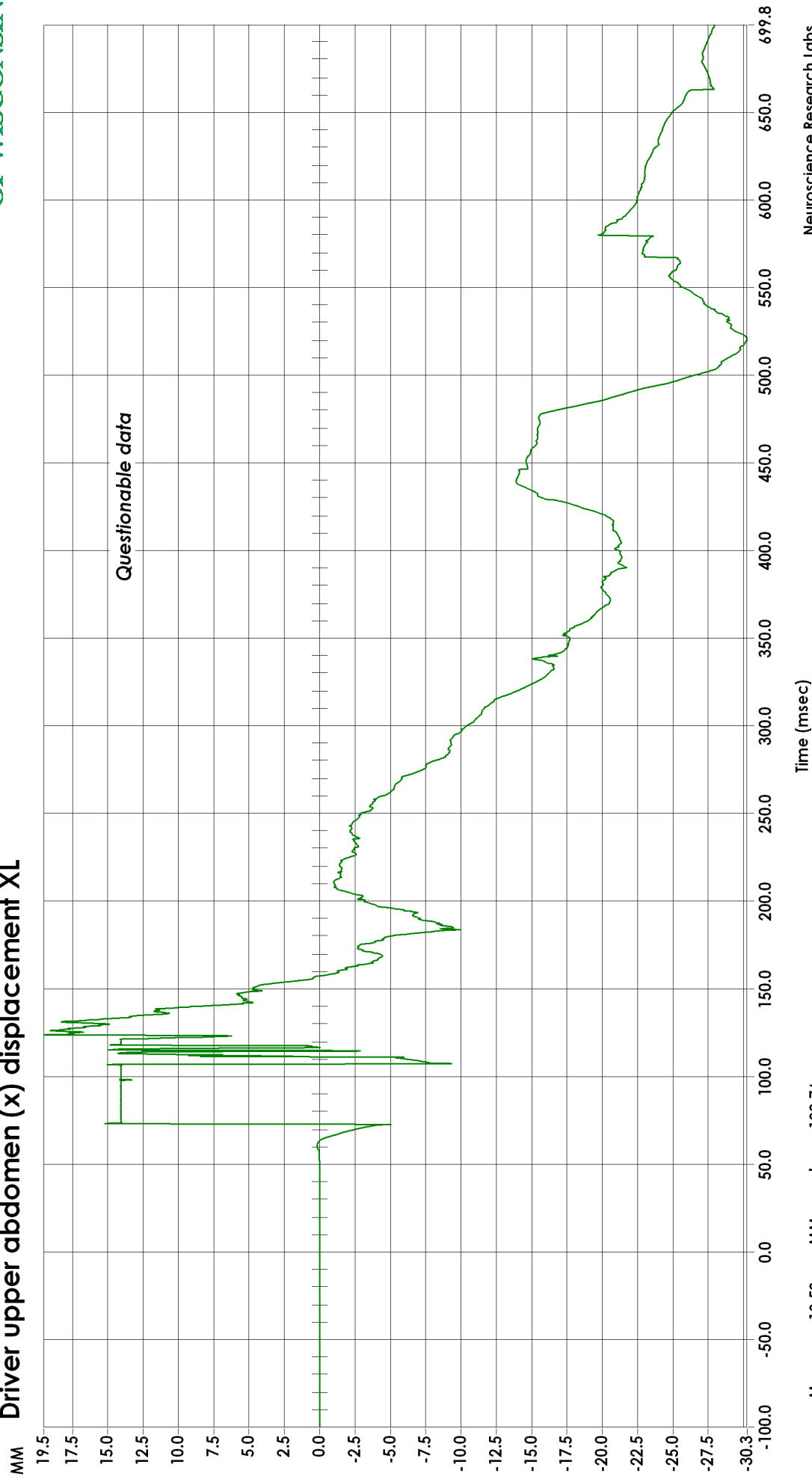


Max	6271.11	NWT	at	70.56	msec
Min	-6014.83	NWT	at	631.60	msec

SOI004 Plot 062

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	ABDU
		Sensor Info	Space Age 300647
		Serial Number	39184

Driver upper abdomen (x) displacement XL

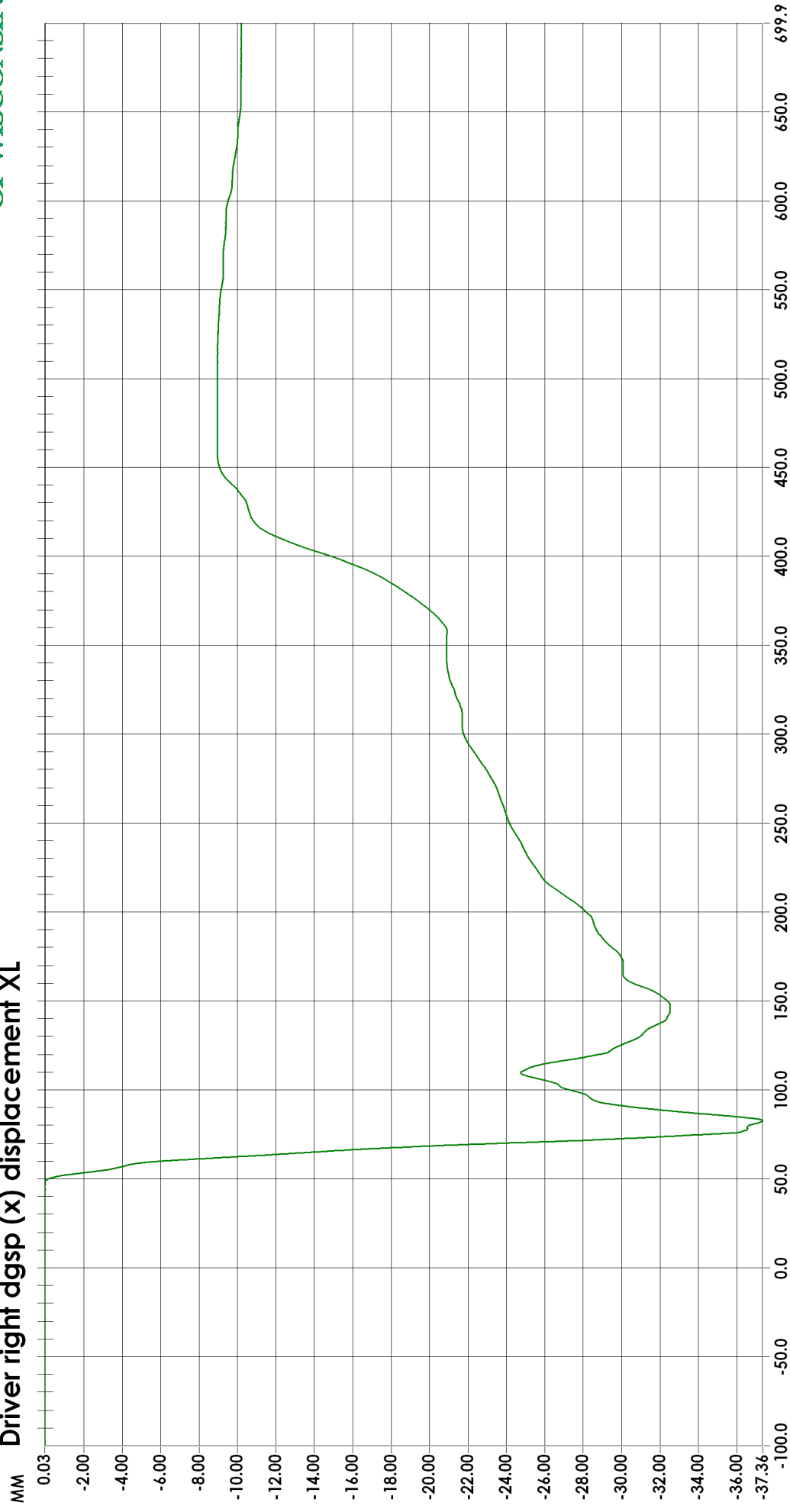


Max	19.52	MM	at	123.76	msec
Min	-30.26	MM	at	519.84	msec

SOI004 Plot 063

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	ABDR
		Sensor Info	Space_Age_Control E10DA
		Serial Number	14486

Driver right dgsp (x) displacement XL



Time (msec)

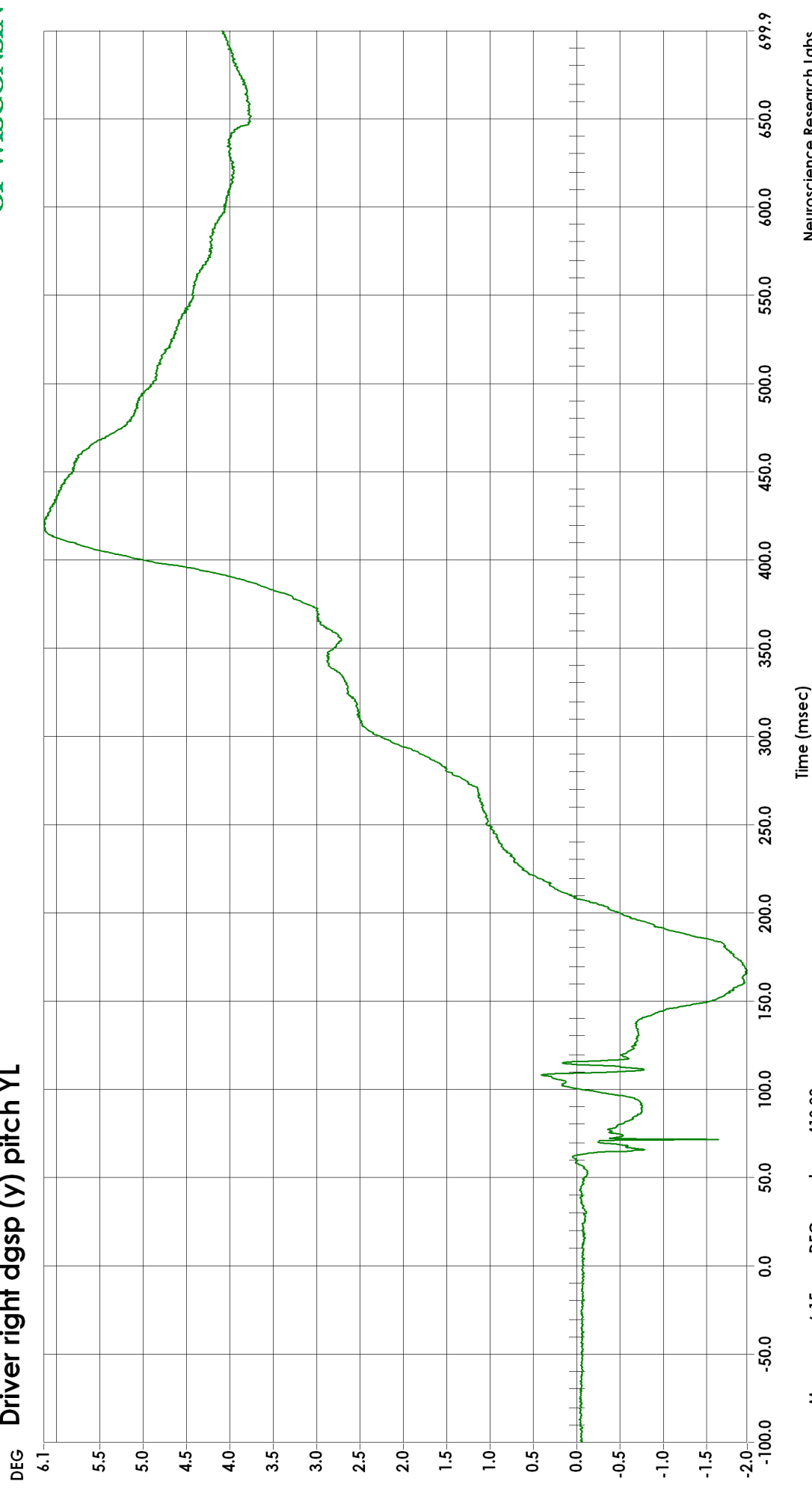
Max	0.03	MM	at	26.64	msec
Min	-37.36	MM	at	82.72	msec

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SO1004 Plot 064

Test ID	SOI004	Filter	CFC600	Sensor Location	ABDR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Space_Age_Control E10DA
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	104
		Pretrigger Points	1250		

Driver right dgsp (y) pitch YL

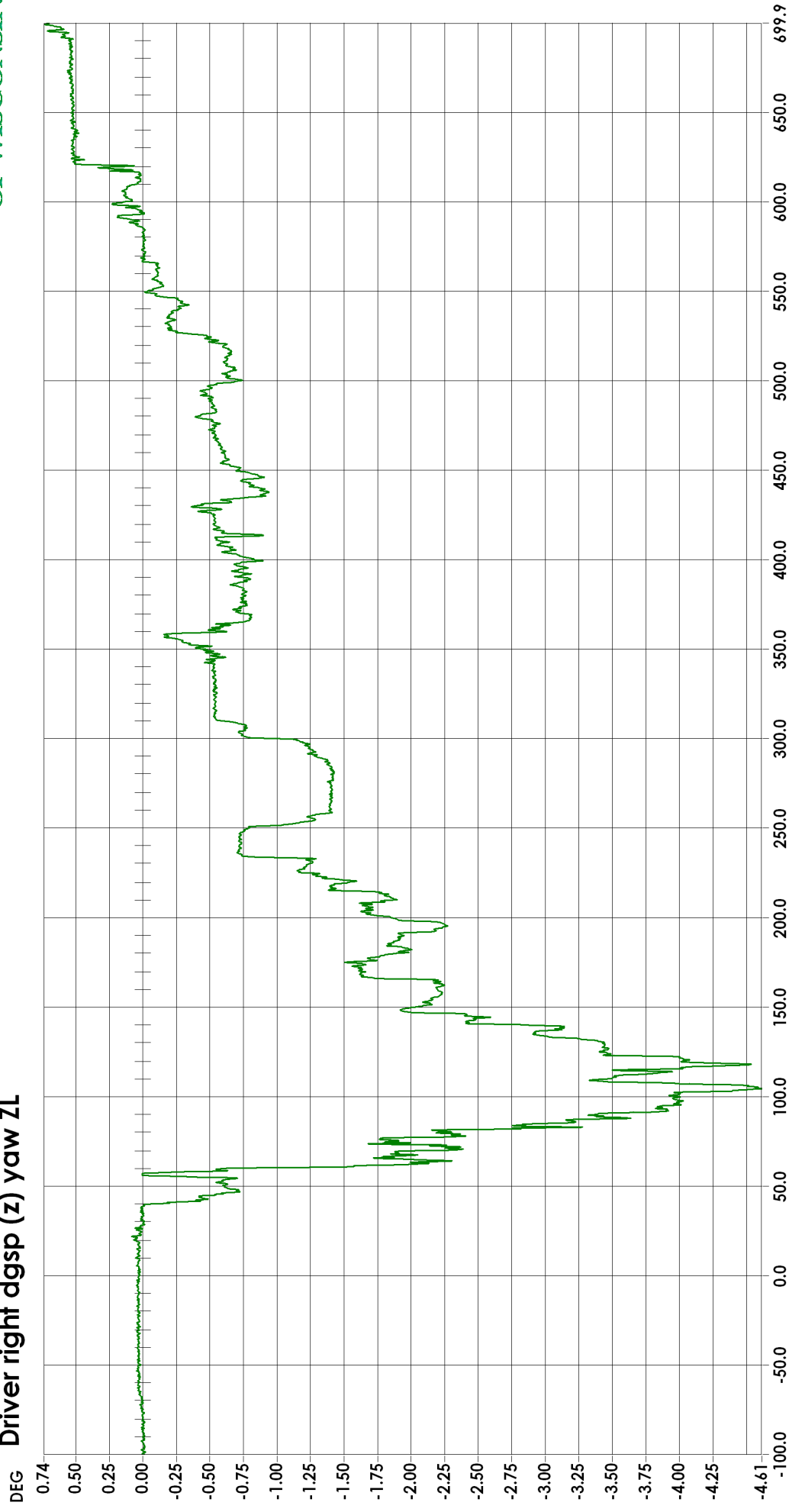


Max	6.15	DEG	at	419.28	msec
Min	-1.97	DEG	at	165.92	msec

SOI004 Plot 065

Test ID	SOI004	Filter	CFC600	Sensor Location	ABDR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Contelec PD210_4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	361
		Prefrigger Points	1250		

Driver right dgsp (z) yaw ZL



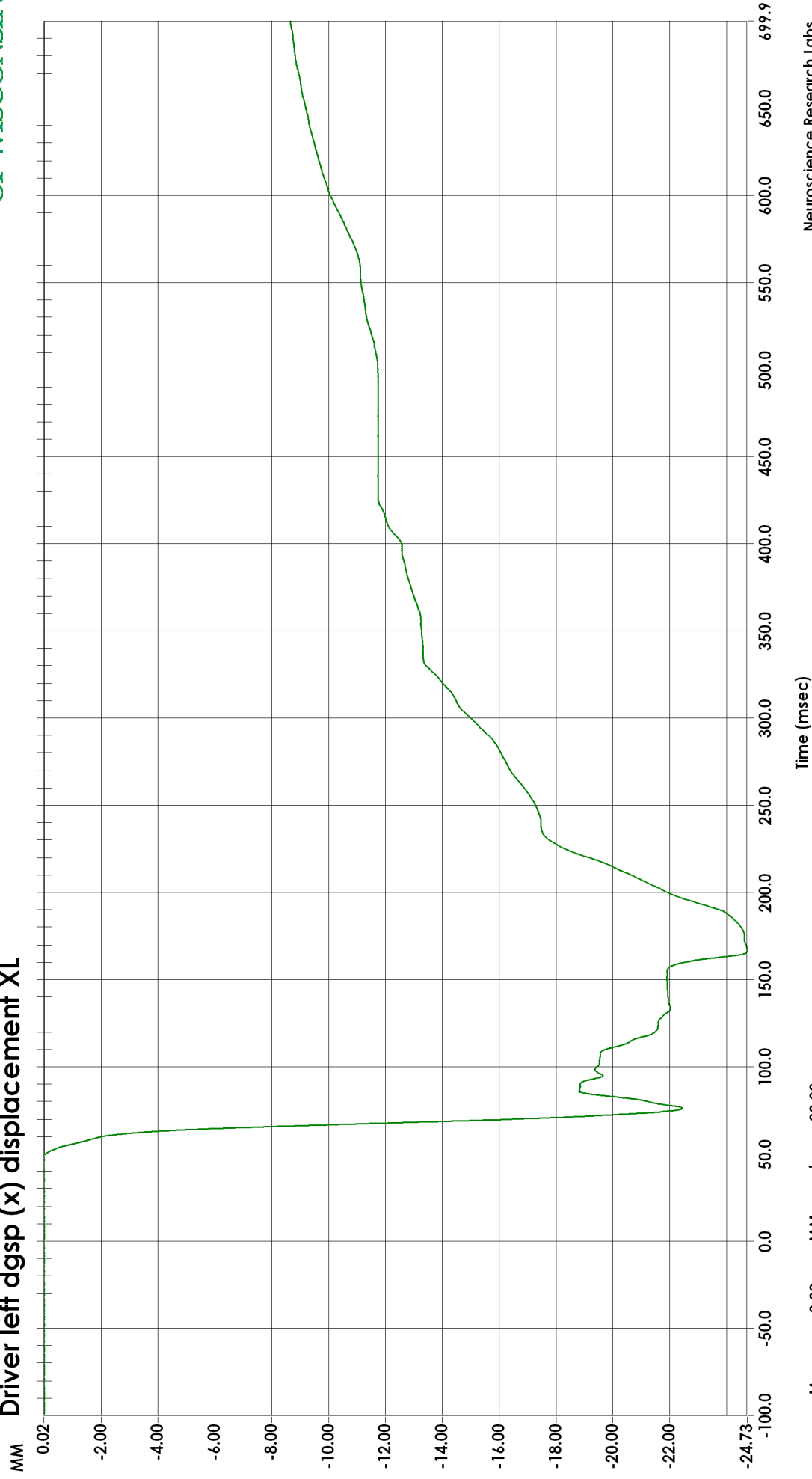
Time (msec)

Max	0.72	DEG	at	698.96	msec
Min	-4.61	DEG	at	104.48	msec

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Test ID	SO1004	Filter	CFC600	Sensor Location	ABDL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Space_Age_Control E10DA
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	256
		Prefrigger Points	1250		

Driver left dgsp (x) displacement XL

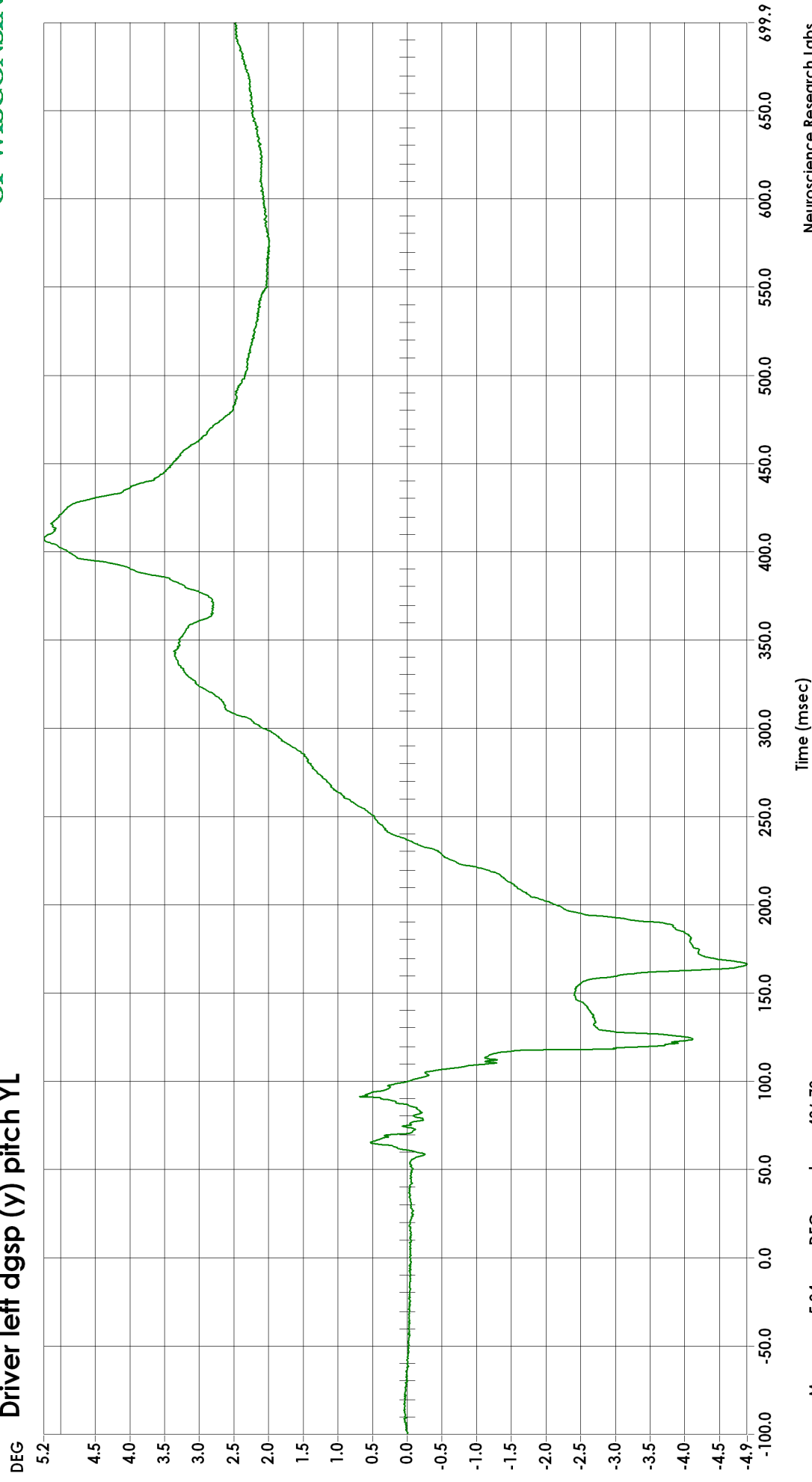


Max	0.02	MM	at	38.08	msec
Min	-24.73	MM	at	167.12	msec

SO1004 Plot 067

Test ID	SOI004	Filter	CFC600	ABDL	
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	
		Pretrigger Points	1250	Serial Number	107

Driver left dgsp (y) pitch YL

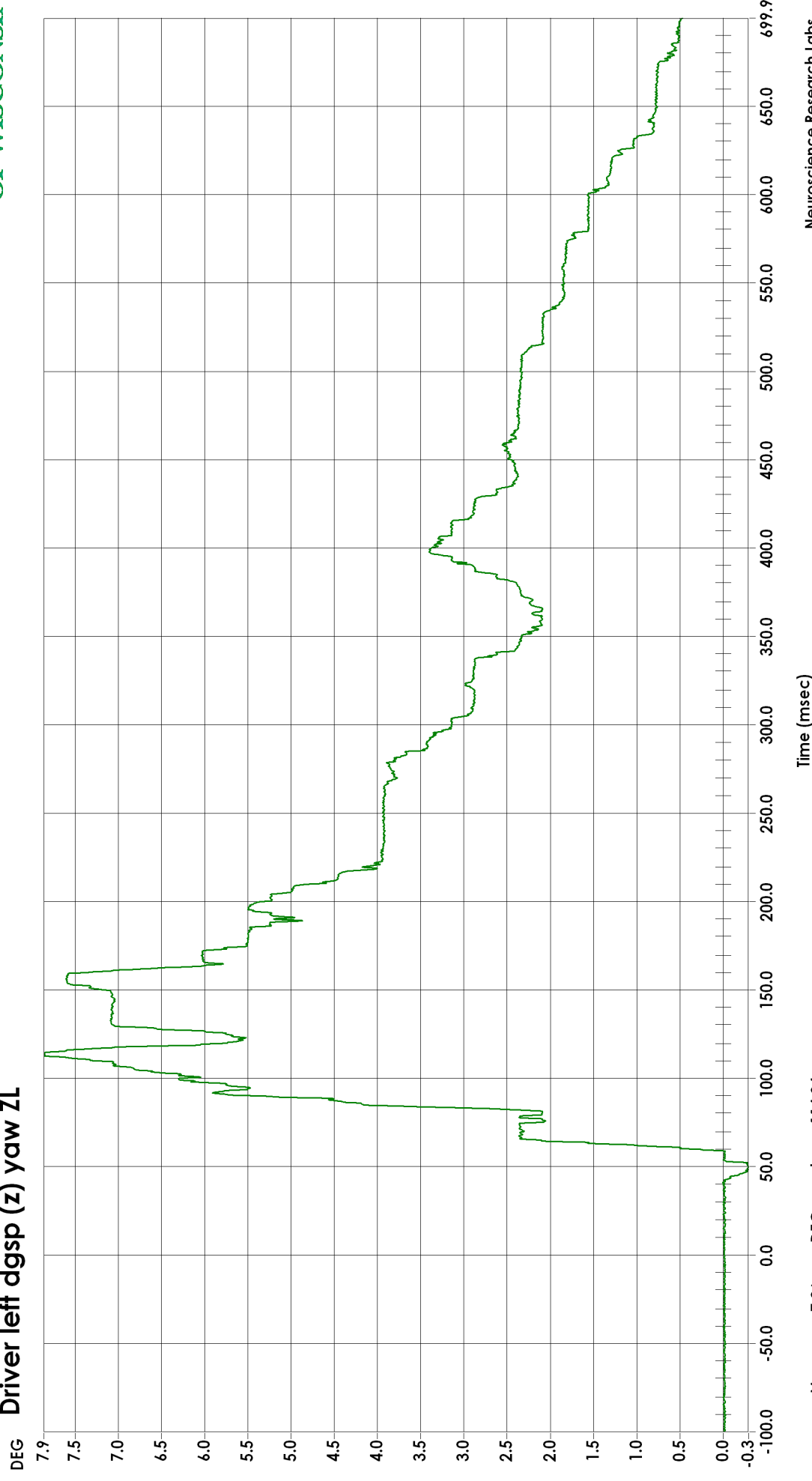


Max	5.24	DEG	at	406.72	msec
Min	-4.90	DEG	at	166.40	msec

SOI004 Plot 068

Test ID	SOI004	Filter	CFC600	ABDL	
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location	
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info	
		Pretrigger Points	1250	Serial Number	410

Driver left dgsp (z) yaw ZL



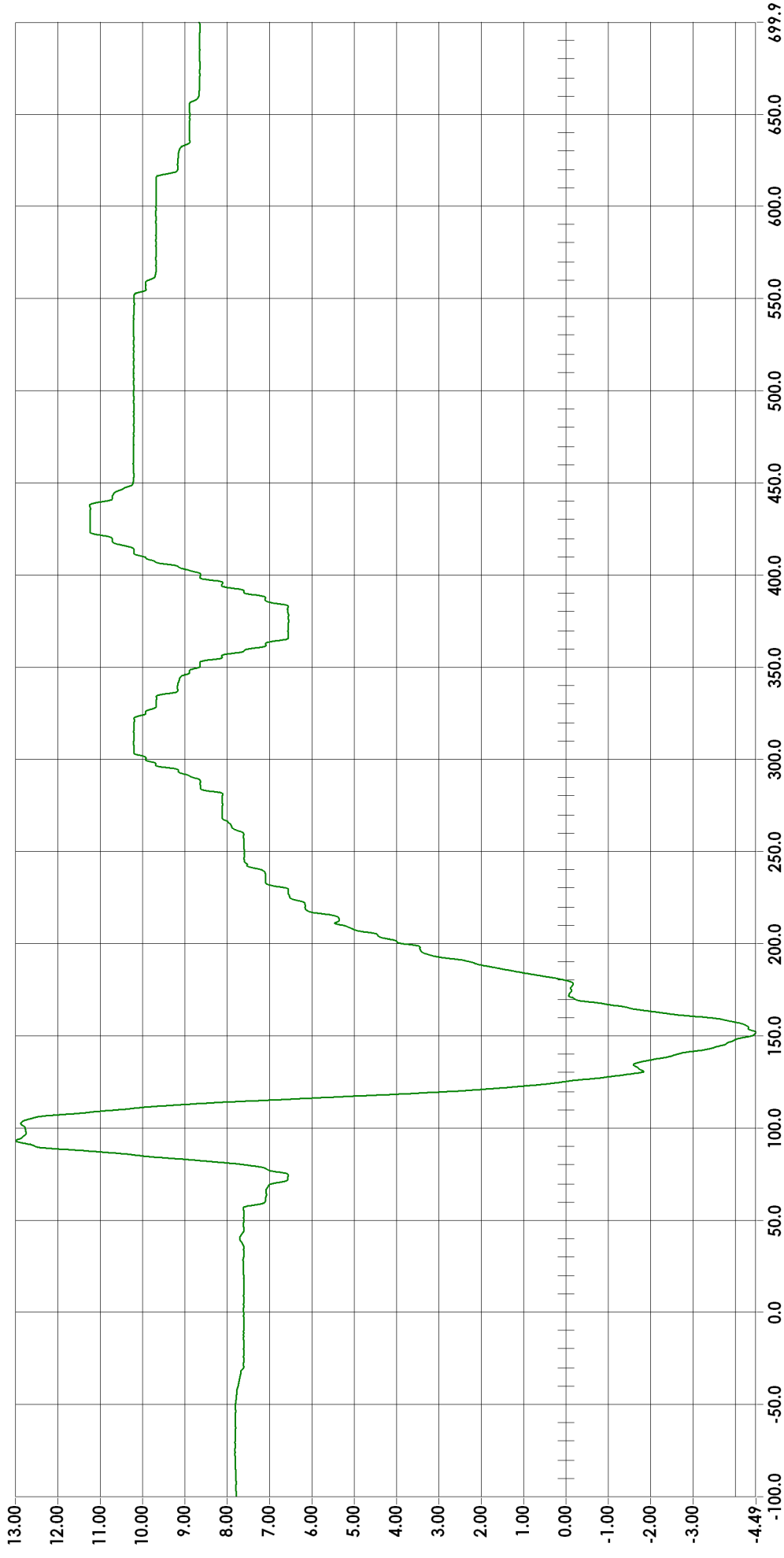
Max	7.86	DEG	at	114.24	msec
Min	-0.29	DEG	at	50.00	msec

SOI004 Plot 069



Test ID	SO1004	Filter	CFC180	Sensor Location	CHRU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_0001
		Prefrigger Points	1250		

Driver upper right crux base CB



Time (msec)

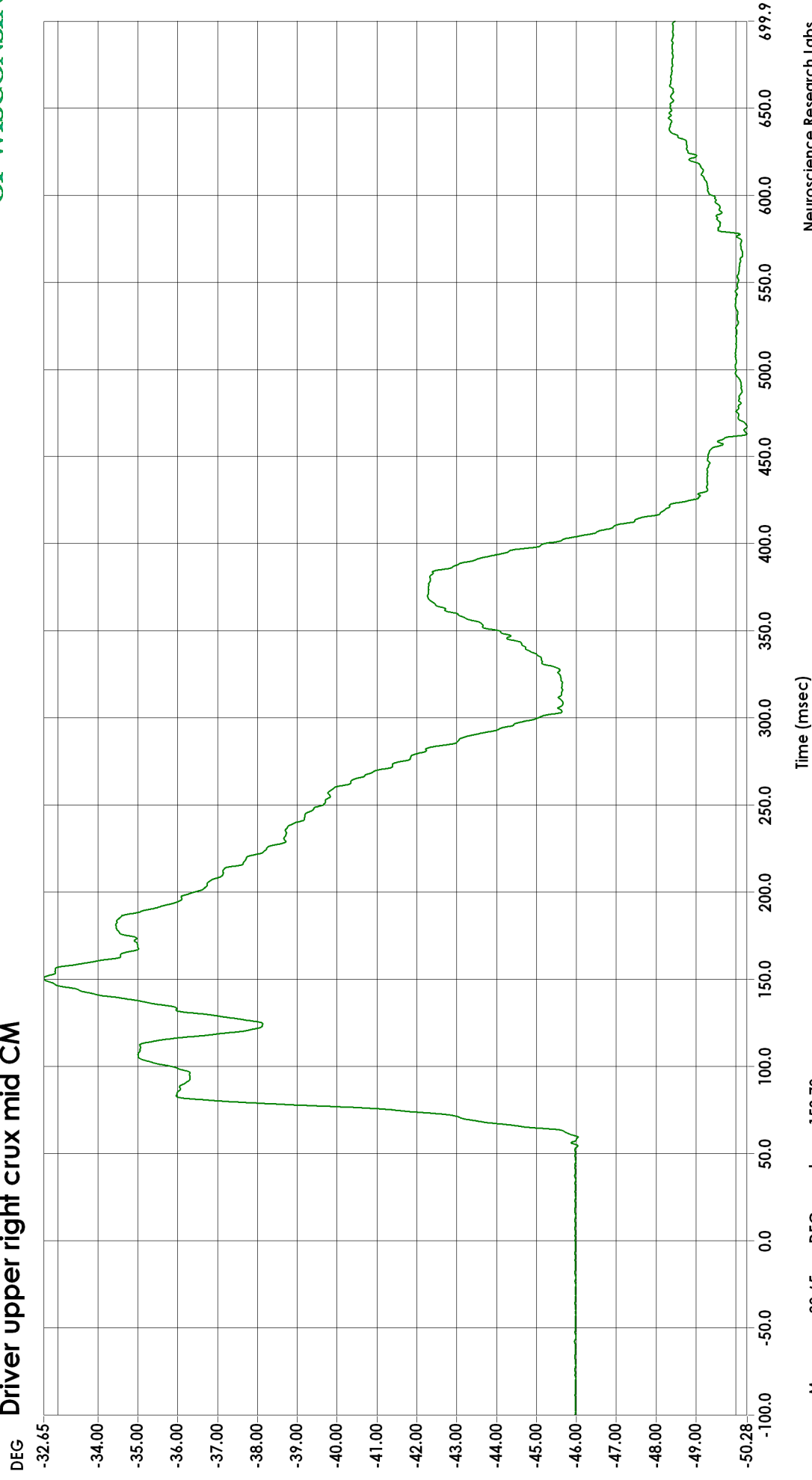
Max	13.00	DEG	at	93.04	msec
Min	-4.49	DEG	at	151.92	msec

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SO1004 Plot 070

Test ID	SOI004	Filter	CFC180	Sensor Location	CHRU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-48
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_0307
		Pretrigger Points	1250		

Driver upper right crux mid CM

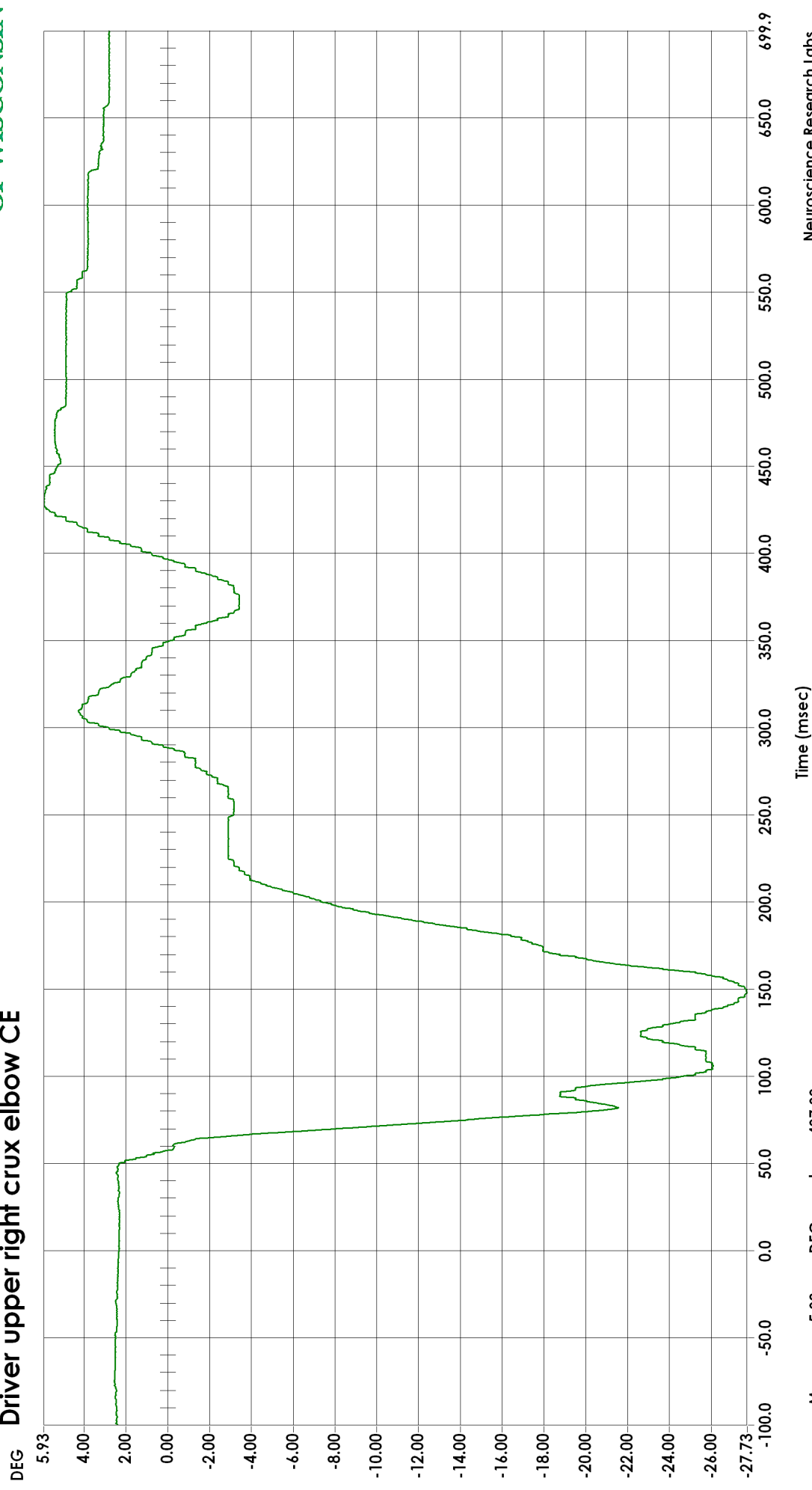


Max	-32.65	DEG	at	150.72	msec
Min	-50.28	DEG	at	467.28	msec

SOI004 Plot 071

Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	CHRU
		Sensor Info	CONTELEC PD210-48
		Serial Number	CRUX_0003

Driver upper right crux elbow CE

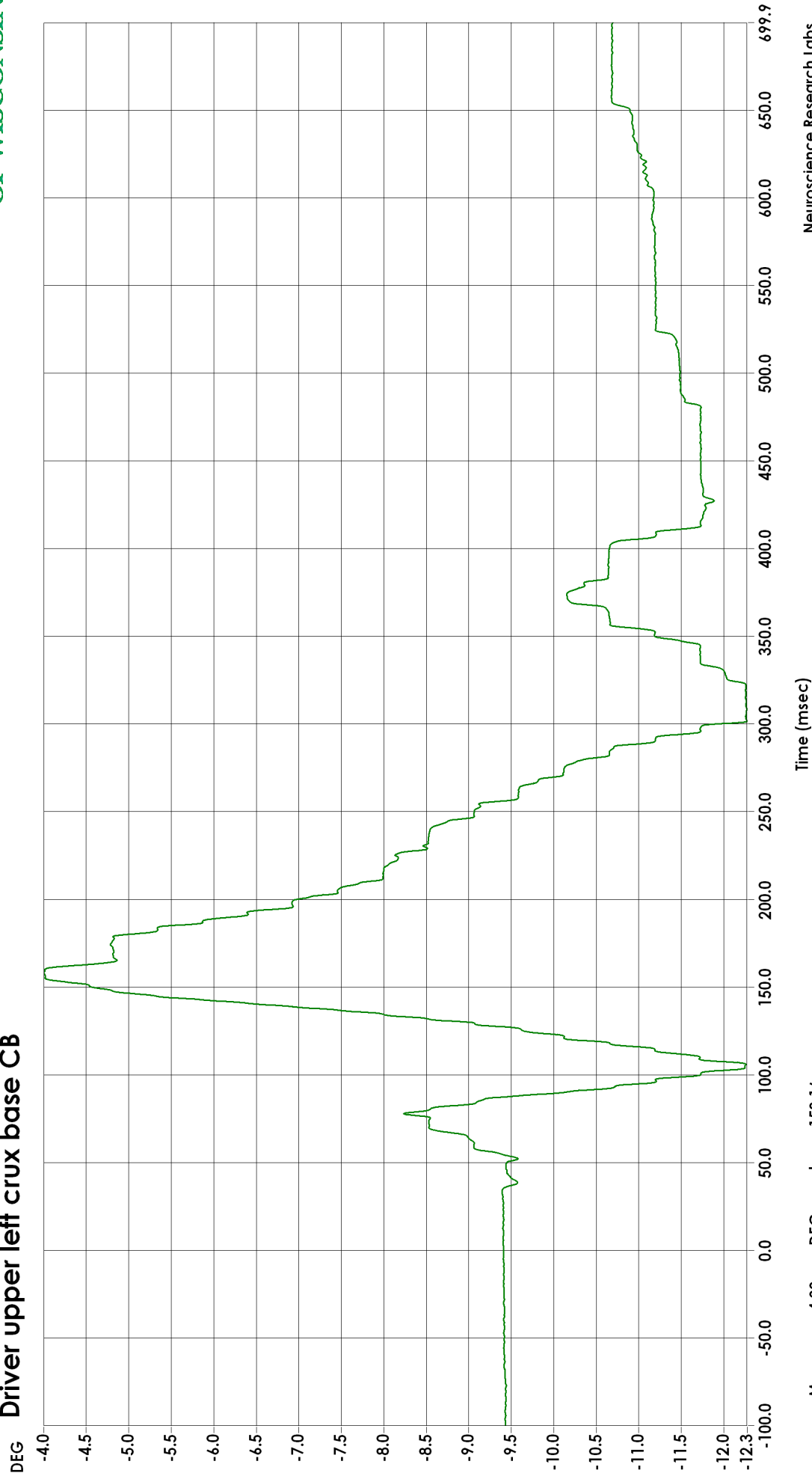


Max	5.93	DEG	at	427.92	msec
Min	-27.73	DEG	at	148.16	msec

SOI004 Plot 072

Test ID	SO1004	Filter	CFC180	Sensor Location	CHLU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_0040
		Prefrigger Points	1250		

Driver upper left crux base CB

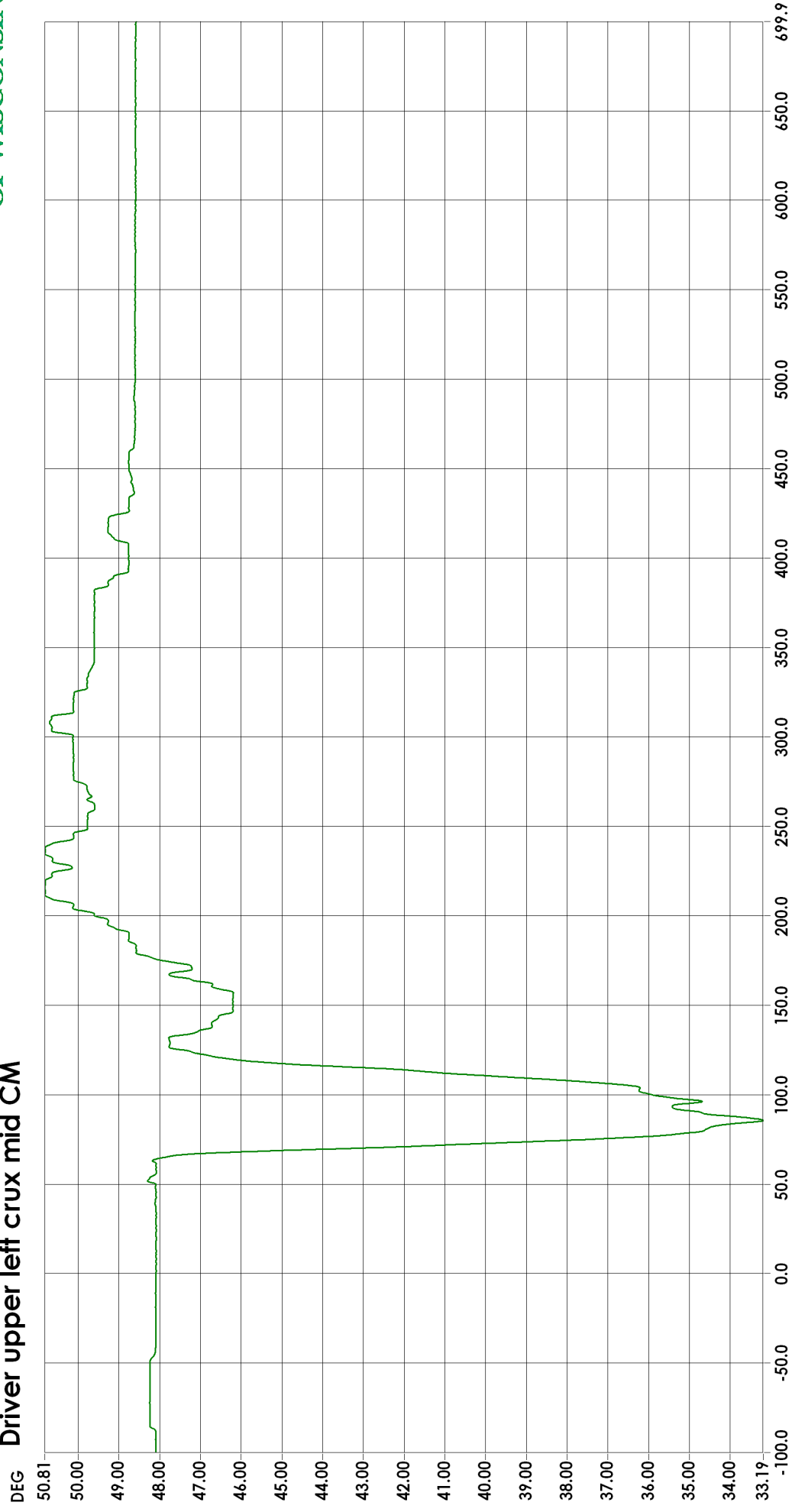


Max	-4.00	DEG	at	158.16	msec
Min	-12.28	DEG	at	301.76	msec

SO1004 Plot 073

Test ID	SOI004	Filter	CFC180	Sensor Location	CHLU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_0041
		Pretrigger Points	1250		

Driver upper left crux mid CM

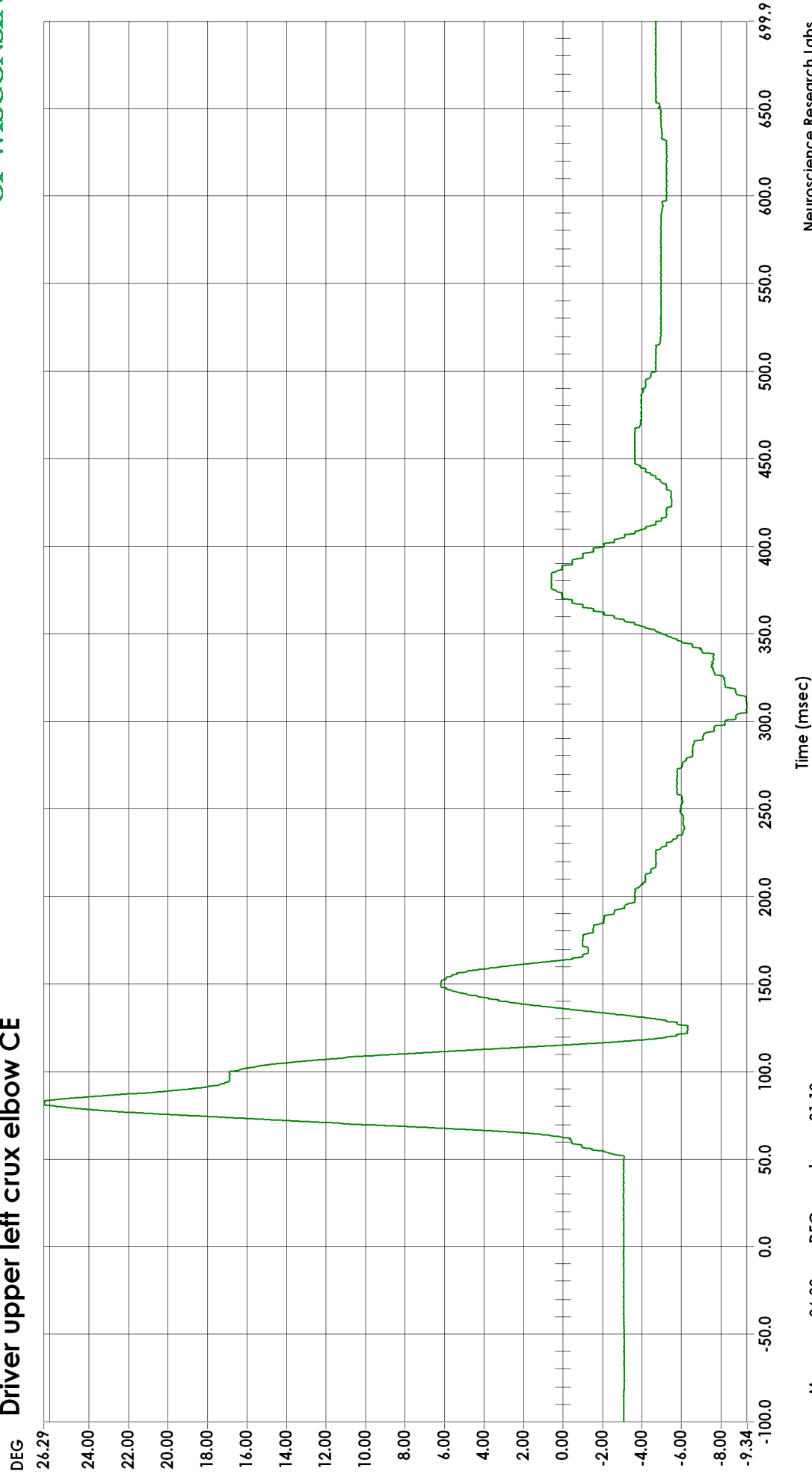


Max	50.81	DEG	at	211.76	msec
Min	33.19	DEG	at	85.68	msec

SOI004 Plot 074

Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	CHLU
		Sensor Info	CONTELEC PD210-48
		Serial Number	CRUX_0529

Driver upper left crux elbow CE

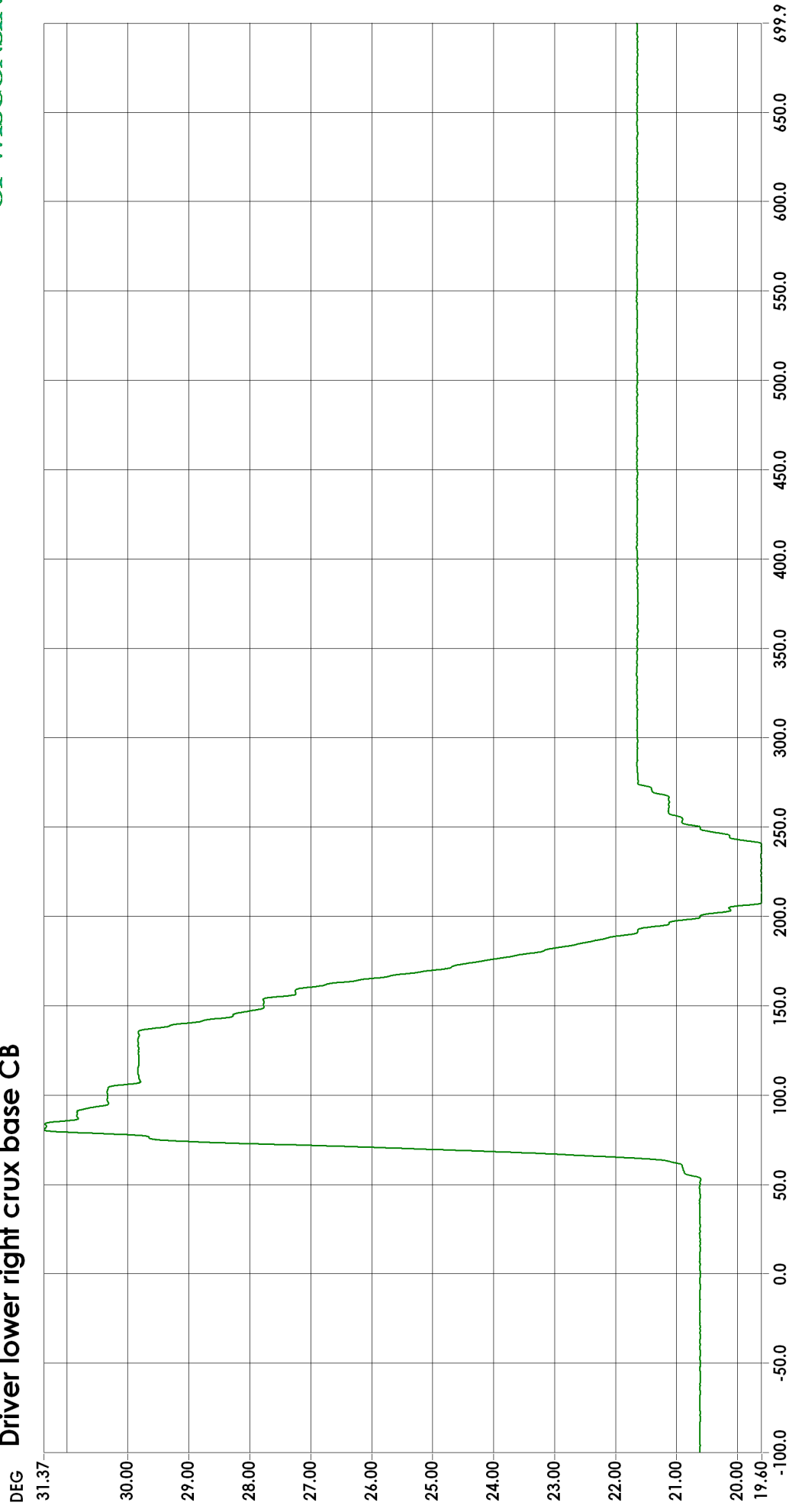


Max	26.29	DEG	at	81.12	msec
Min	-9.34	DEG	at	308.32	msec

SOI004 Plot 075

Test ID	SOI004	Filter	CFC180	Sensor Location	CHRL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_0043
		Pretrigger Points	1250		

Driver lower right crux base CB



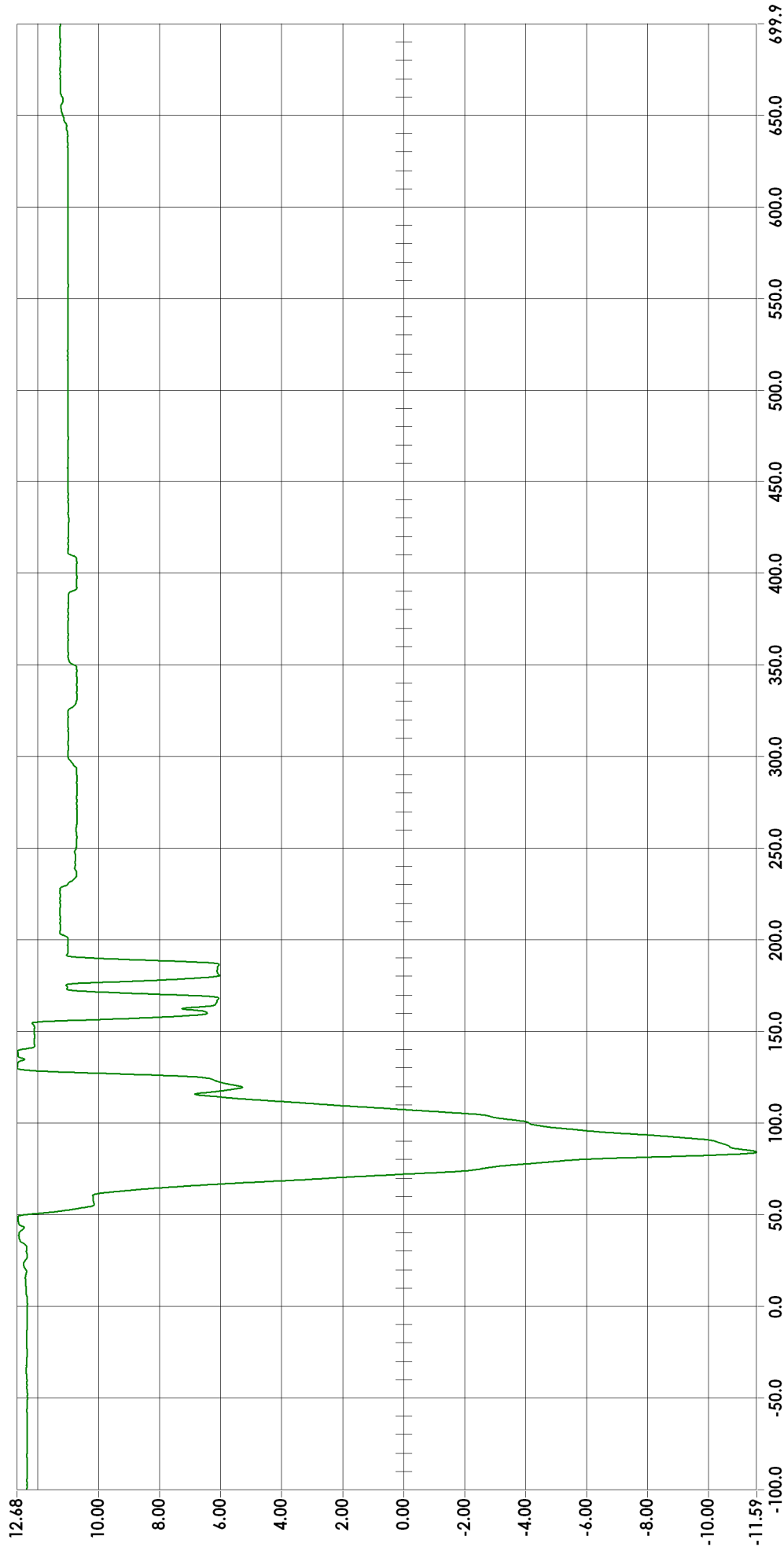
Time (msec)

Max	31.37	DEG	at	80.64	msec
Min	19.60	DEG	at	213.20	msec

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Test ID	SOI004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	CHRL
		Sensor Info	CONTELEC PD210-48
		Serial Number	CRUX_00706

DEG Driver lower right crux mid CM



Time (msec)

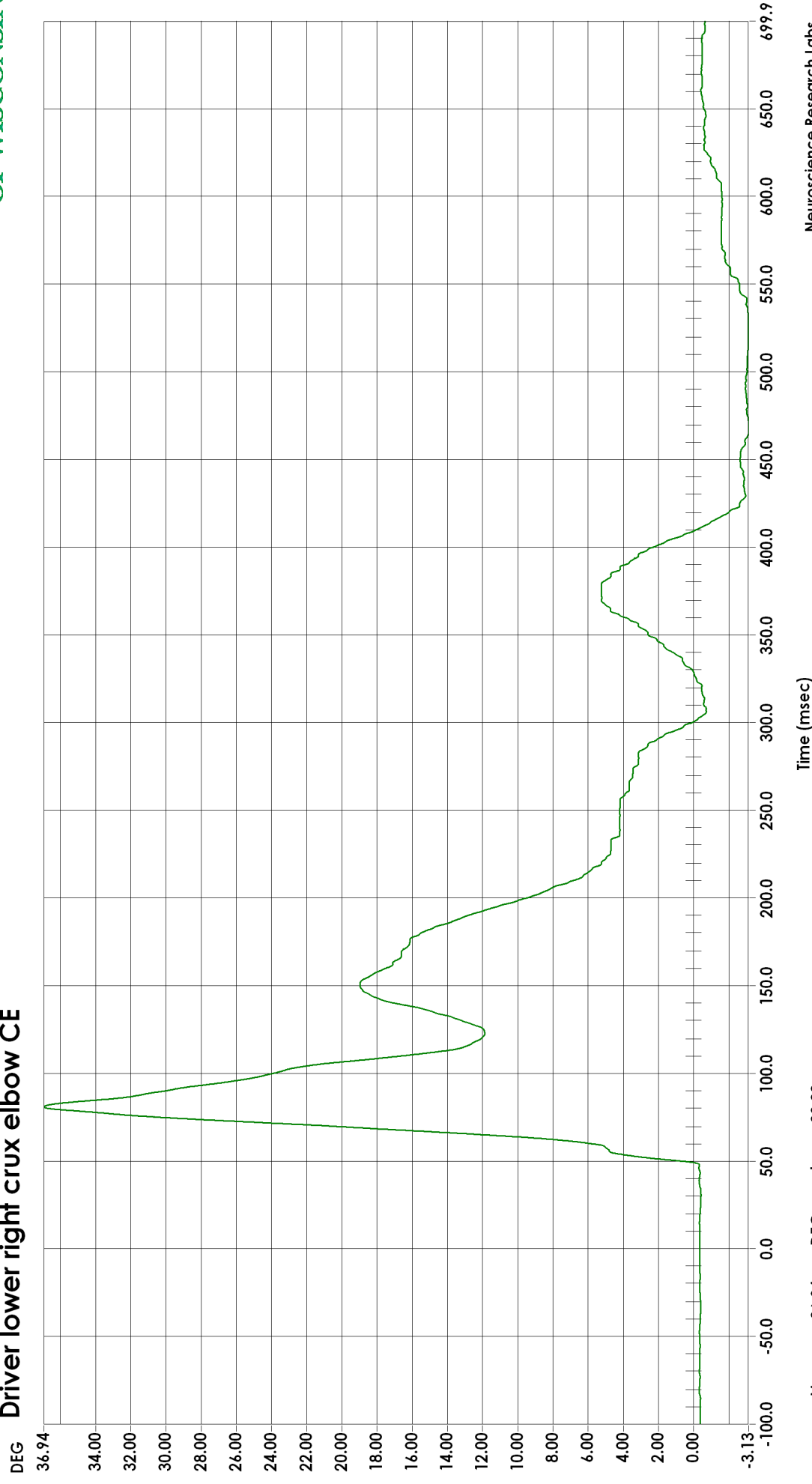
Max	12.68	DEG	at	130.16	msec
Min	-11.59	DEG	at	84.16	msec

SOI004 Plot 077

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Test ID	SOI004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	CHRL
		Sensor Info	CONTELEC PD210-48
		Serial Number	CRUX_0559

Driver lower right crux elbow CE

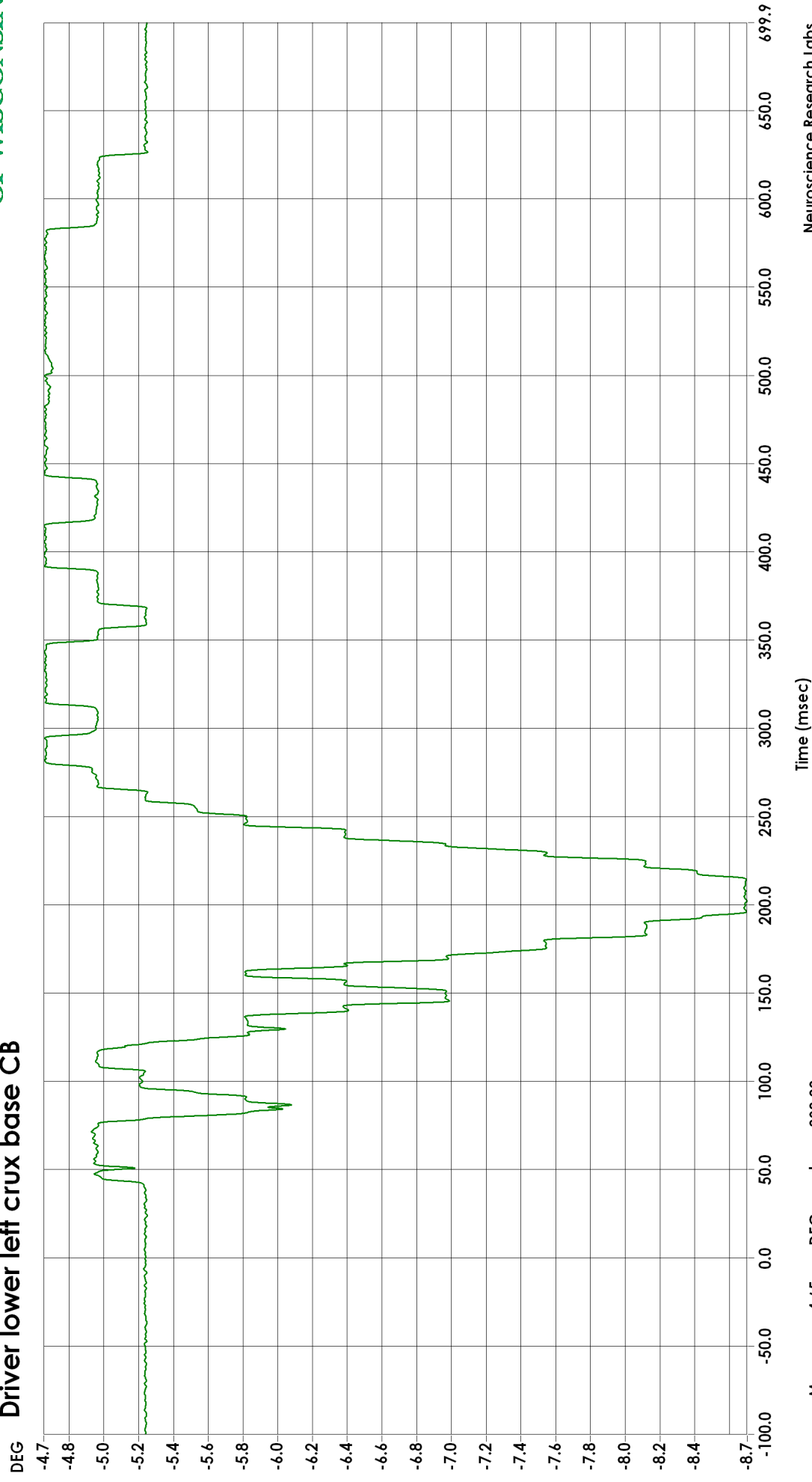


Max	36.94	DEG	at	80.88	msec
Min	-3.13	DEG	at	468.88	msec

SOI004 Plot 078

Test ID	SOI004	Filter	CFC180	Sensor Location	CHLL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_23
		Pretrigger Points	1250		

Driver lower left crux base CB

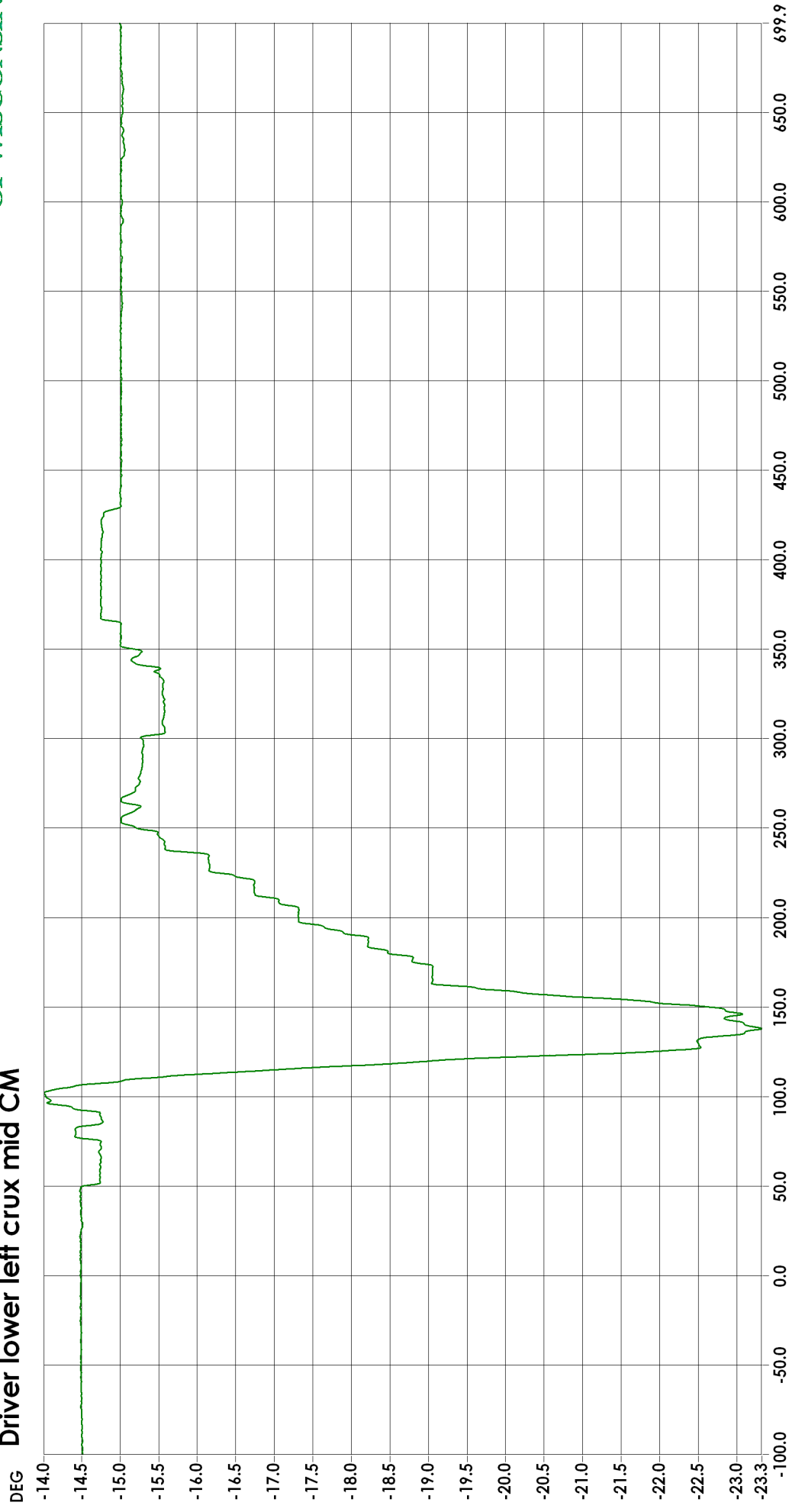


Max	-4.65	DEG	at	398.00	msec
Min	-8.70	DEG	at	202.24	msec

SOI004 Plot 079

Test ID	SOI004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	CHLL
		Sensor Info	CONTELEC PD210-48
		Serial Number	CRUX_0357

Driver lower left crux mid CM



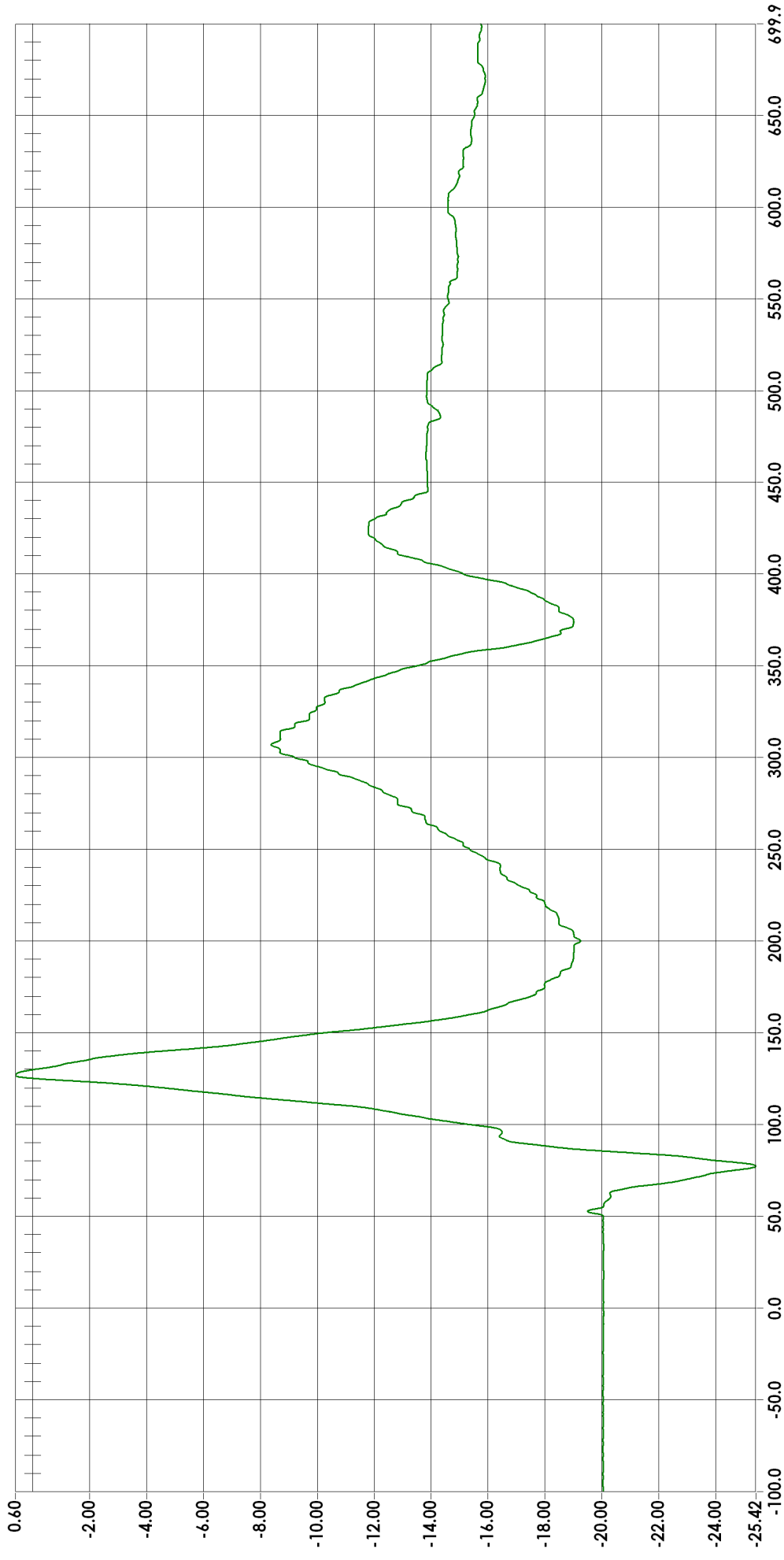
Time (msec)

Max	-14.01	DEG	at	102.00	msec
Min	-23.33	DEG	at	137.92	msec

SOI004 Plot 080

Test ID	SOI004	Filter	CFC180	Sensor Location	CHLL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-48
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	CRUX_0317
		Pretrigger Points	1250		

Driver lower left crux elbow CE



Time (msec)

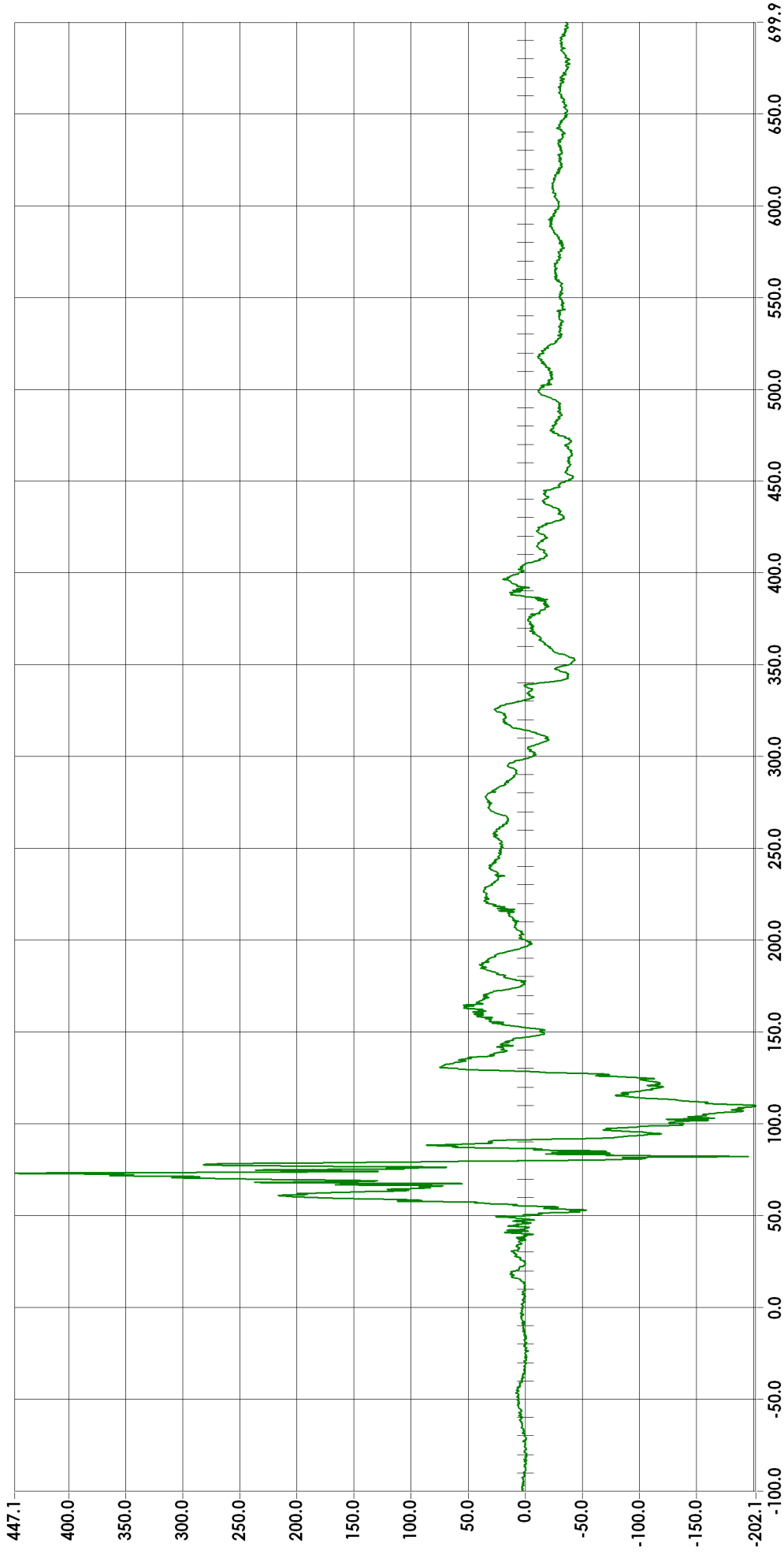
Max	0.60	DEG	at	126.80	msec
Min	-25.42	DEG	at	77.36	msec

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBRU
		Sensor Info	Denton 4509J
		Serial Number	4509J_107_FX

Driver right upper tibia (x) force XL



Max	447.09	NWT	at	73.04	msec
Min	-202.11	NWT	at	109.84	msec

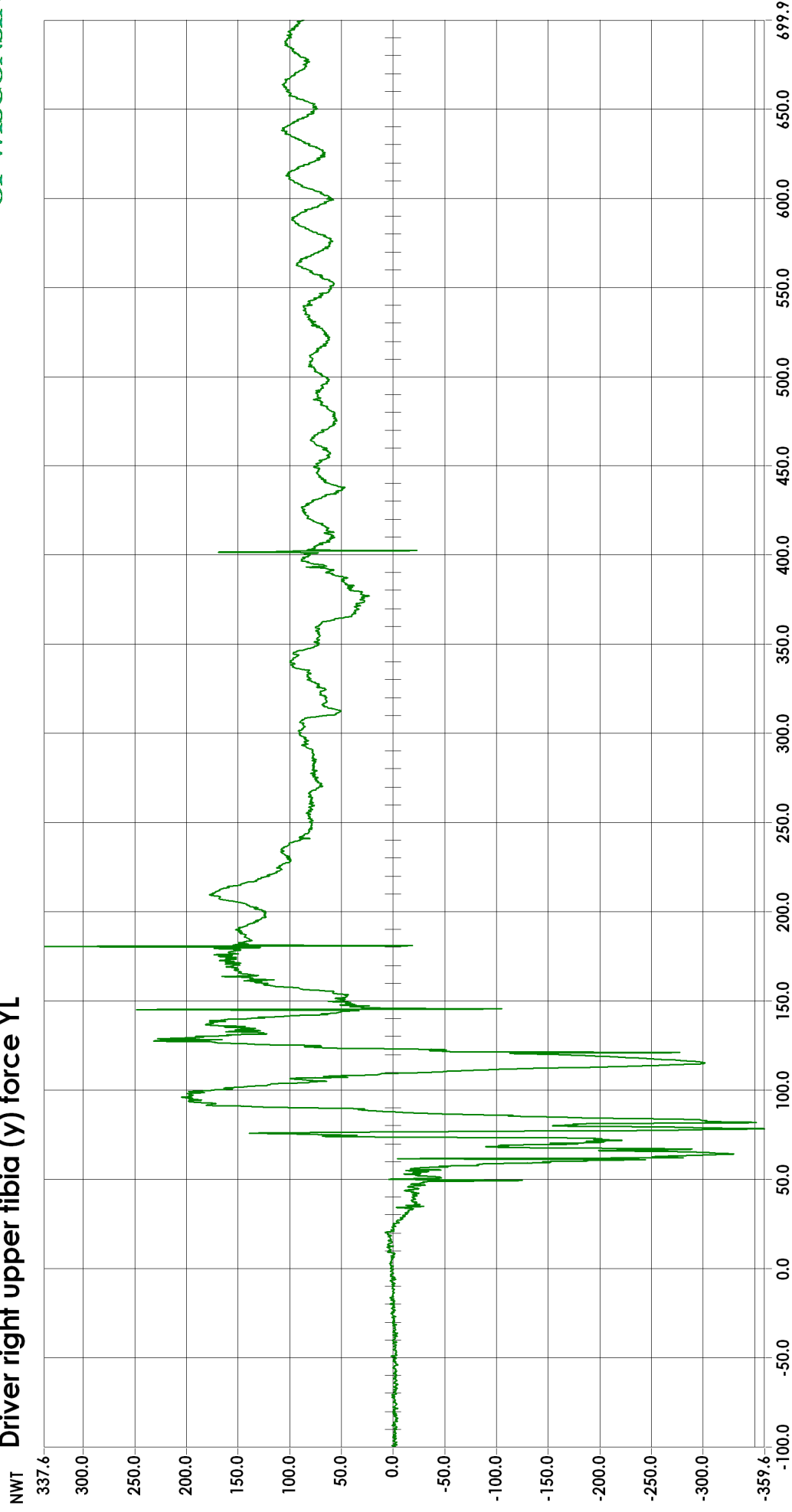
SOI004 Plot 082

Time (msec)

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBRU
		Sensor Info	Denton 4509J
		Serial Number	4509J_107_FY

Driver right upper tibia (y) force YL



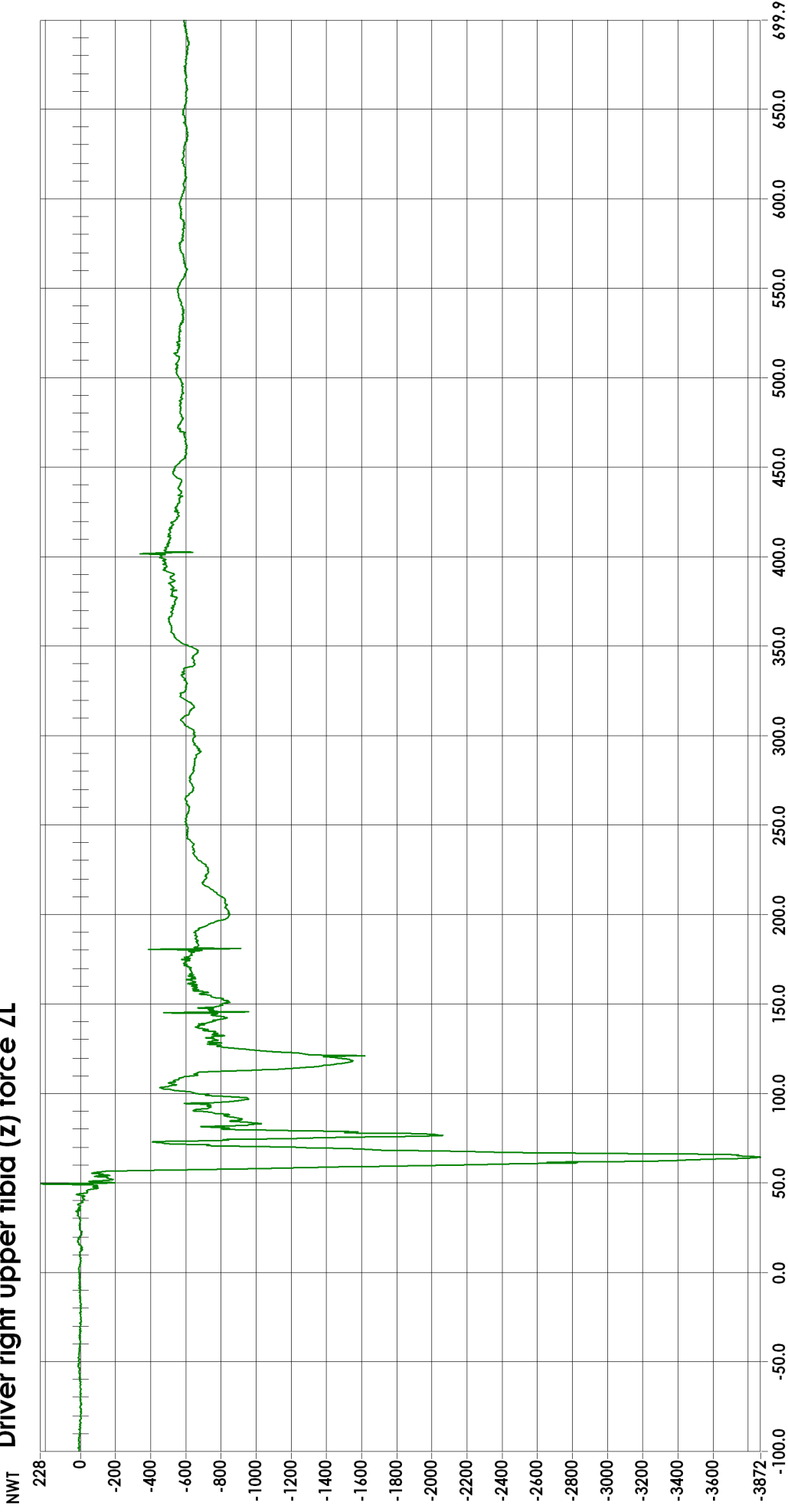
Max	337.62	NWT	at	180.56	msec
Min	-359.57	NWT	at	78.40	msec

SOI004 Plot 083



Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBRU
		Sensor Info	Denton 4509J
		Serial Number	4509J_107_FZ

Driver right upper tibia (z) force ZL



Time (msec)

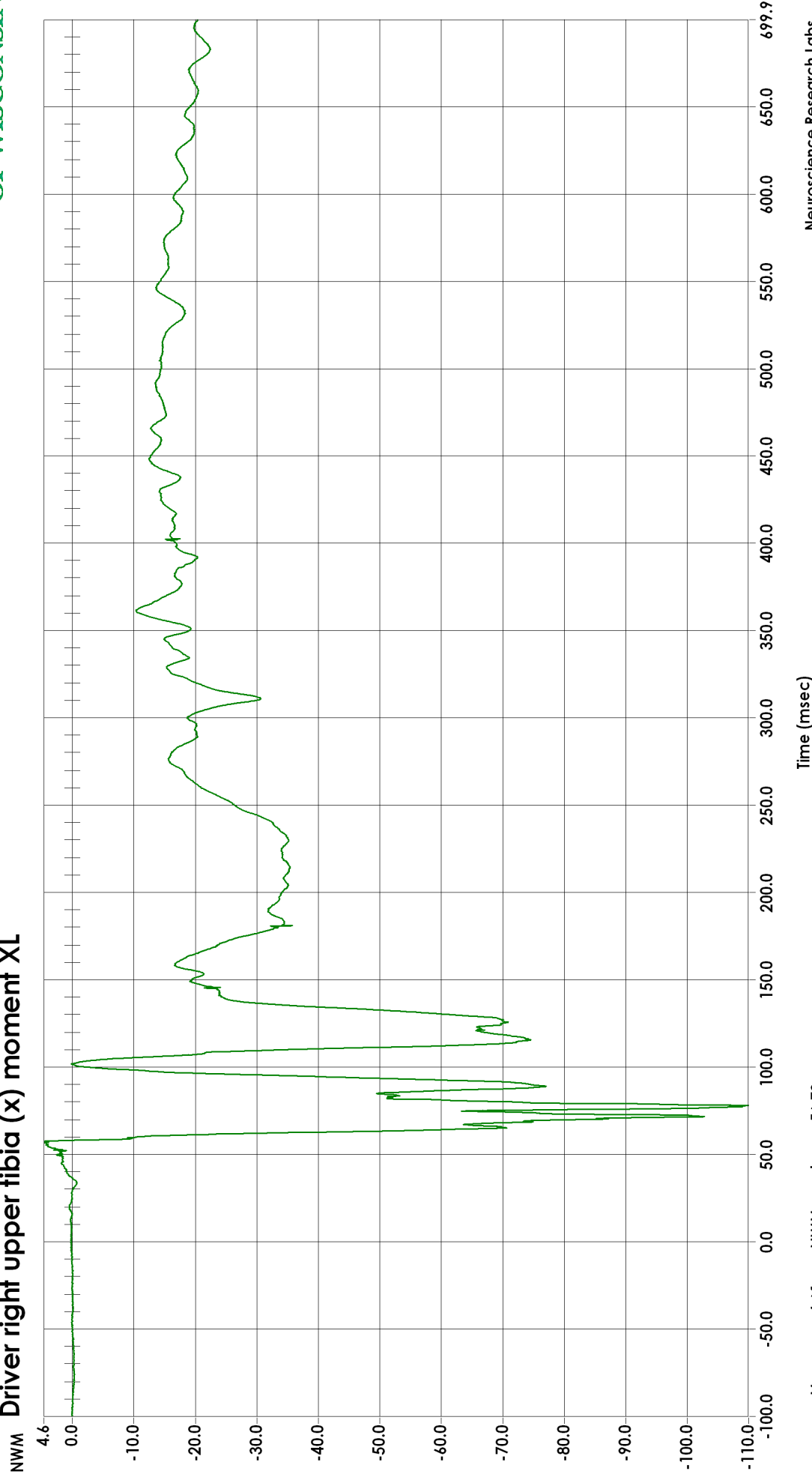
Max	228.32	NWT	at	49.44	msec
Min	-3871.92	NWT	at	64.48	msec

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SOI004 Plot 084

Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBRU
		Sensor Info	Denton 4509J
		Serial Number	4509J_107_MX

Driver right upper tibia (x) moment XL

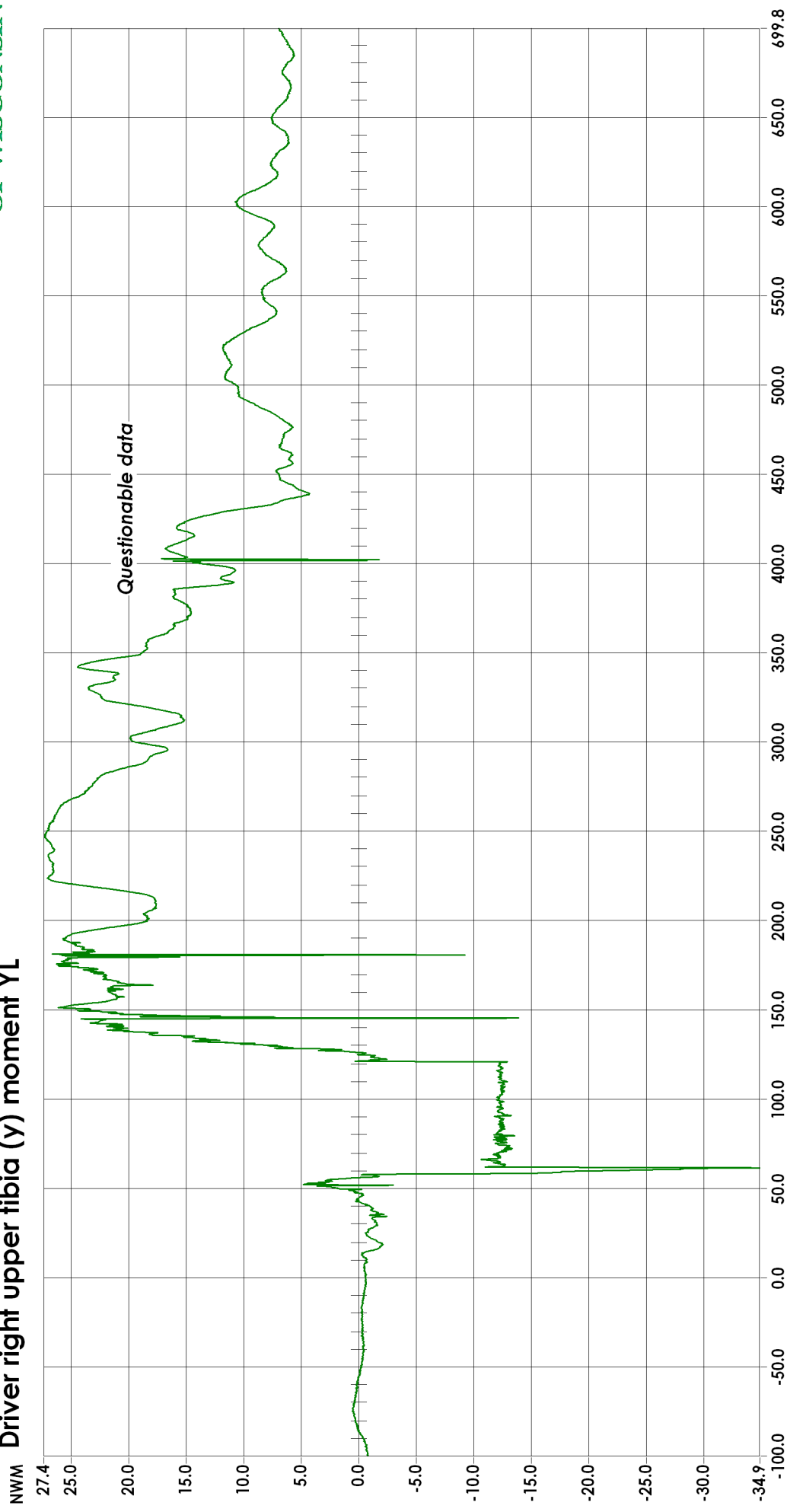


Max	4.61	NWM	at	56.72	msec
Min	-109.97	NWM	at	78.08	msec

SO1004 Plot 085

Test ID	SOI004	Filter	CFC1000	Sensor Location	TBRU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 4509J
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	4509J_107_MY
		Prefrigger Points	1250		

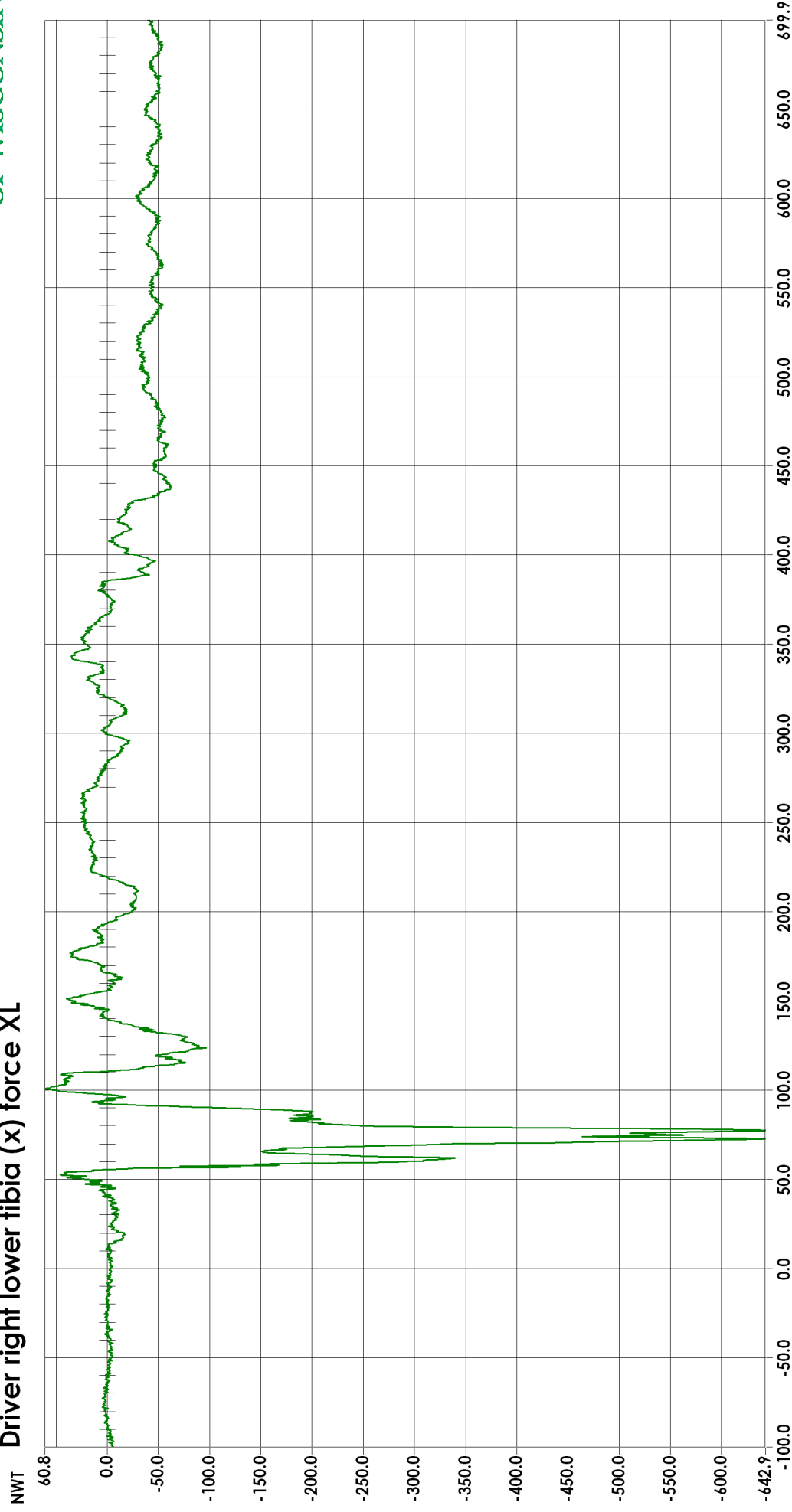
Driver right upper tibia (y) moment YL



Max	27.36	NWM	at	247.44	msec	Neuroscience Research Labs
Min	-34.88	NWM	at	61.52	msec	5000 West National Ave
						Research 151
						Milwaukee, WI 53295

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBR1
		Sensor Info	Denton 4929J
		Serial Number	4929J_166_FX

Driver right lower tibia (x) force XL

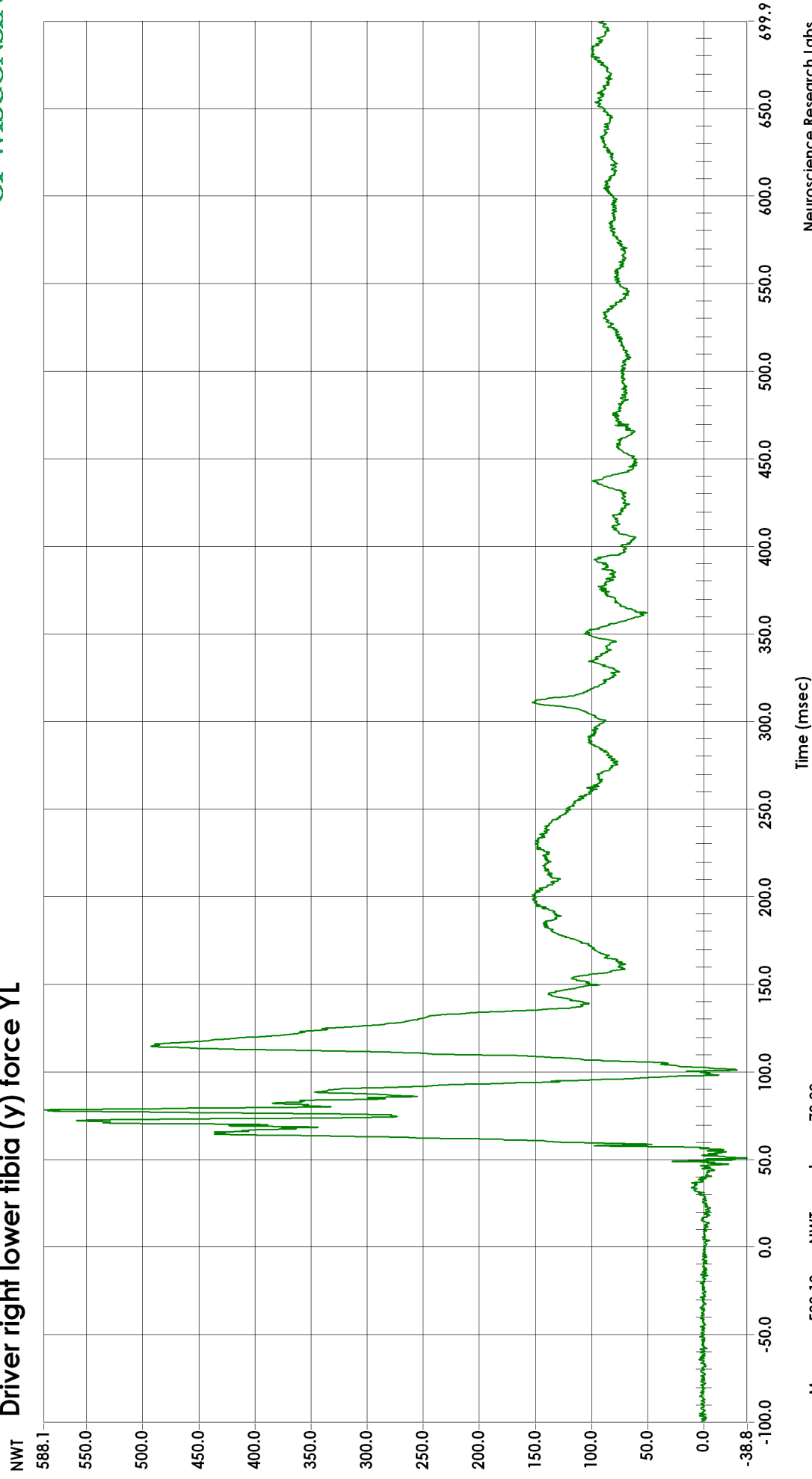


Max	60.80	NWT	at	100.80	msec
Min	-642.90	NWT	at	72.80	msec

SO1004 Plot 087

Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBR1
		Sensor Info	Denton 4929J
		Serial Number	4929J_166_FY

Driver right lower tibia (y) force YL

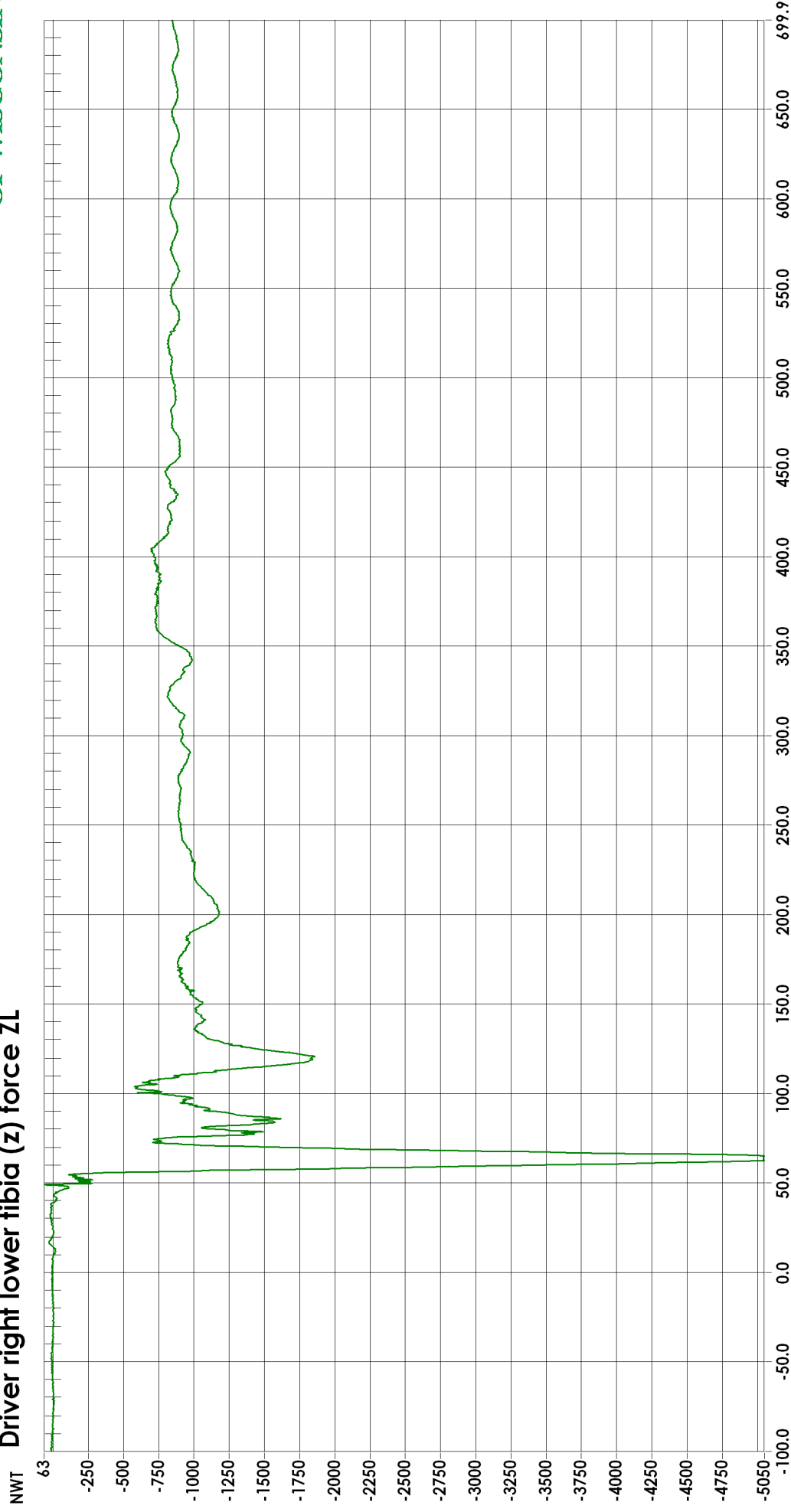


Max	588.12	NWT	at	78.32	msec
Min	-38.79	NWT	at	50.80	msec

SOI004 Plot 088

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBRL
		Sensor Info	Denton 4929J
		Serial Number	4929J_166_FZ

Driver right lower tibia (z) force ZL



Time (msec)

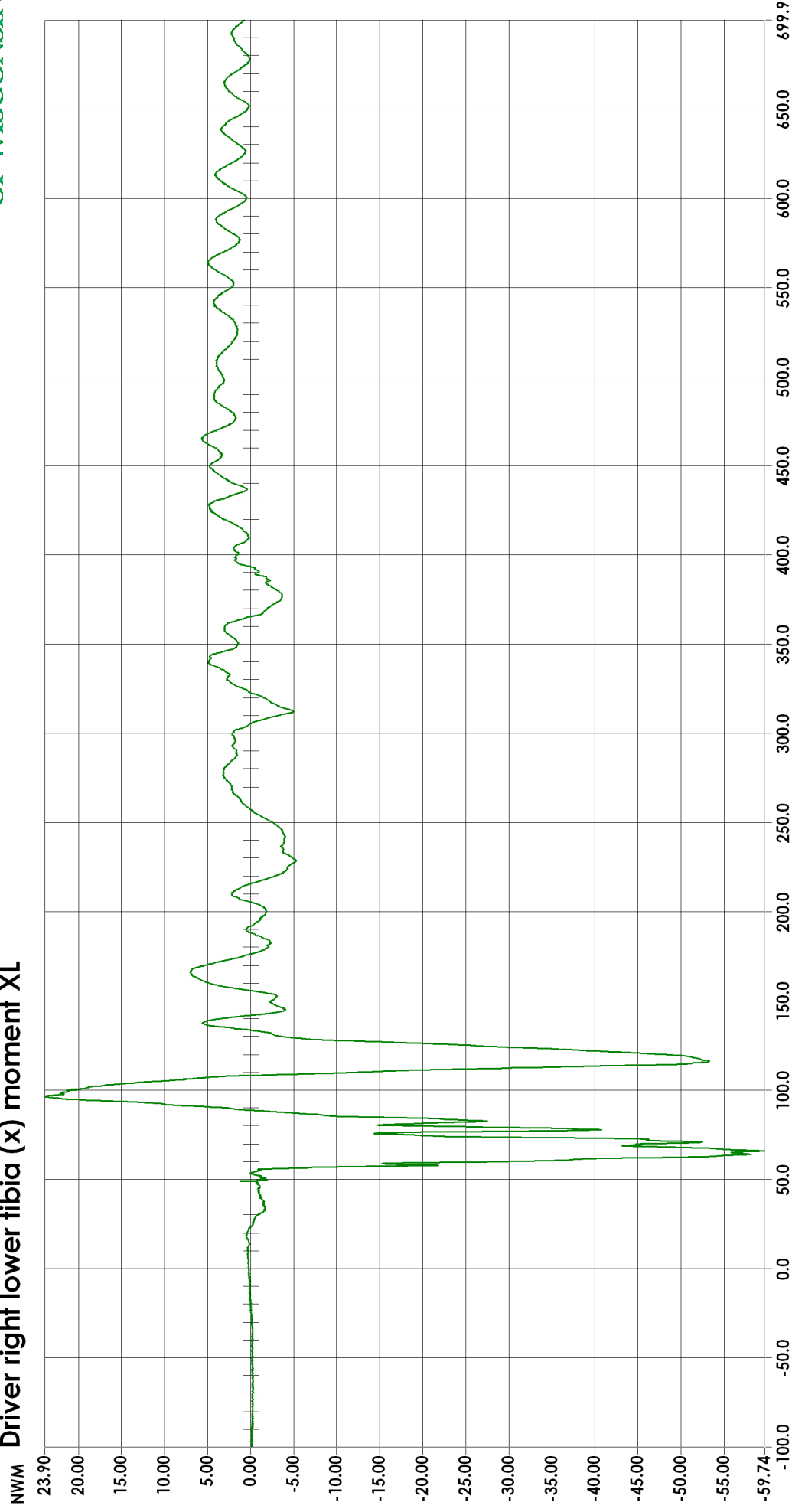
Max	63.42	NWT	at	49.04	msec
Min	-5050.18	NWT	at	62.72	msec

SO1004 Plot 089

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBR1
		Sensor Info	Denton 4929J
		Serial Number	4929J_166_MX

Driver right lower tibia (x) moment XL



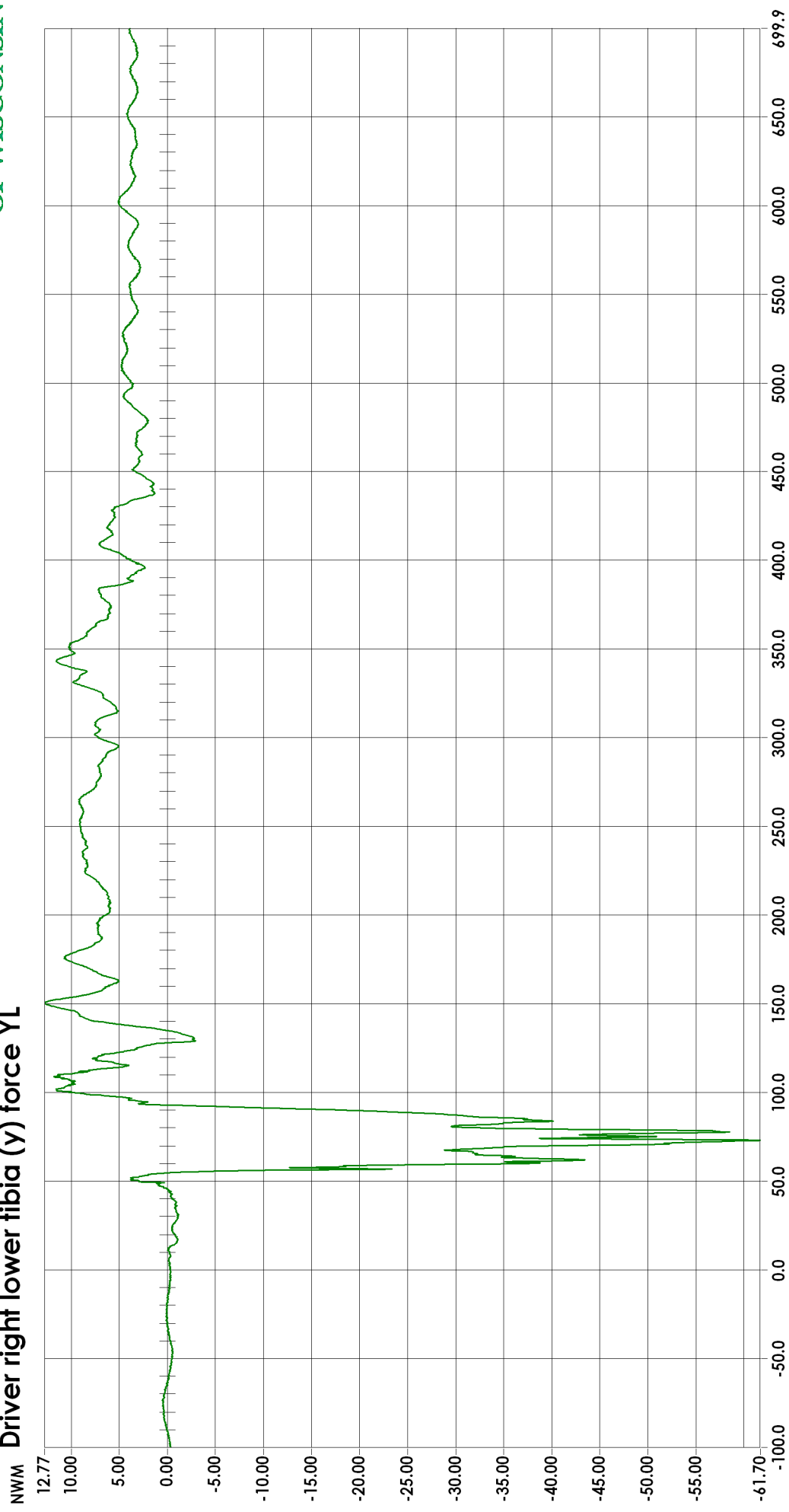
Max	23.90	NWM	at	96.40	msec
Min	-59.74	NWM	at	65.92	msec

SOI004 Plot 090



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	TBRL
		Sensor Info	Denton 4929J
		Serial Number	4929J_166_MY

Driver right lower tibia (y) force YL



Time (msec)

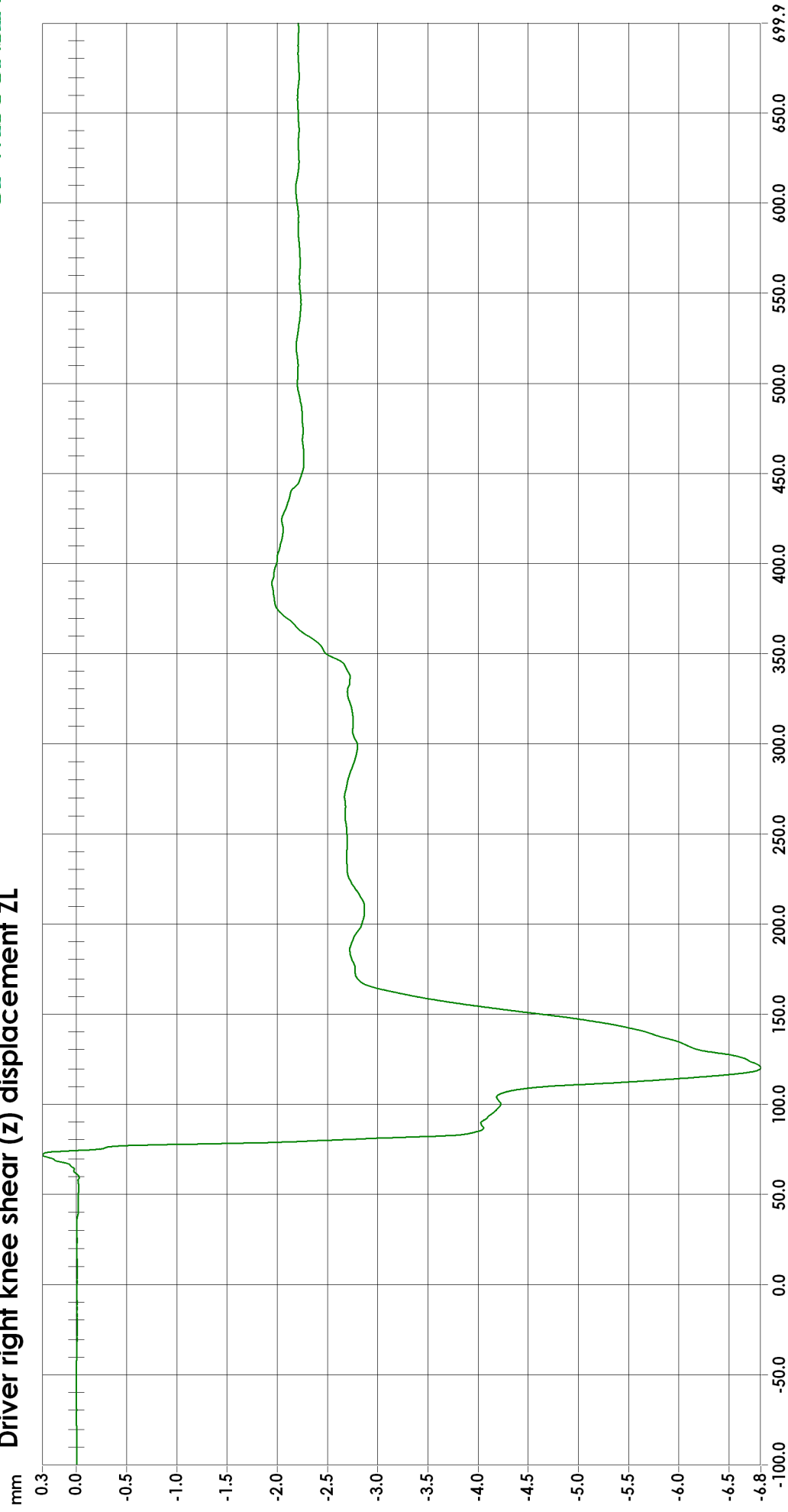
Max	12.77	NWM	at	150.40	msec
Min	-61.70	NWM	at	73.04	msec

SOI004 Plot 091

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Test ID	SOI004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	KNER
		Sensor Info	Space Age Controls 150-0121VL
		Serial Number	14239

Driver right knee shear (z) displacement ZL



Time (msec)

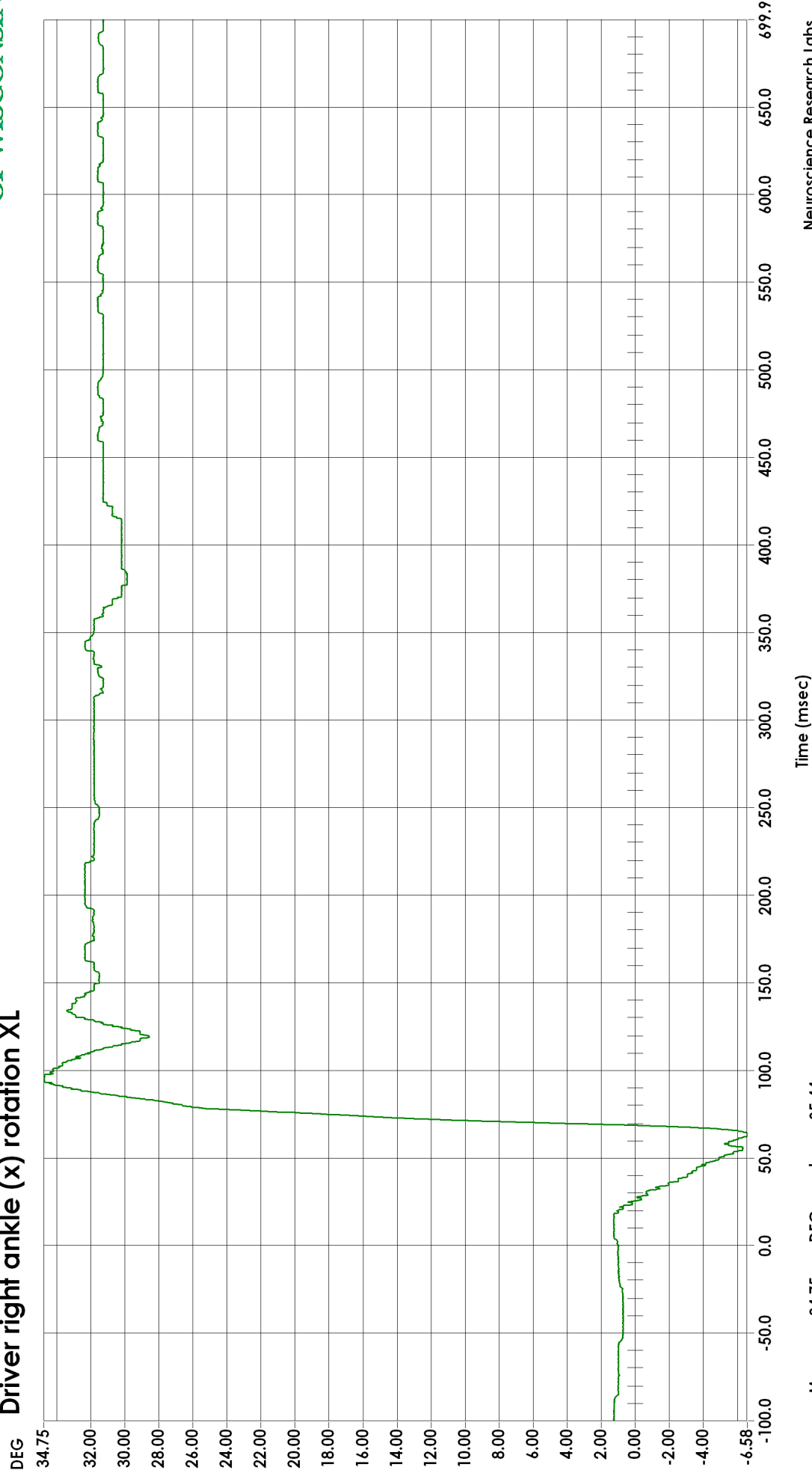
Max	0.34	mm	at	71.76	msec
Min	-6.82	mm	at	120.40	msec

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SOI004 Plot 092

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	ANKR
		Sensor Info	CONTELEC PD210-4B
		Serial Number	ANKLX 0254

Driver right ankle (x) rotation XL

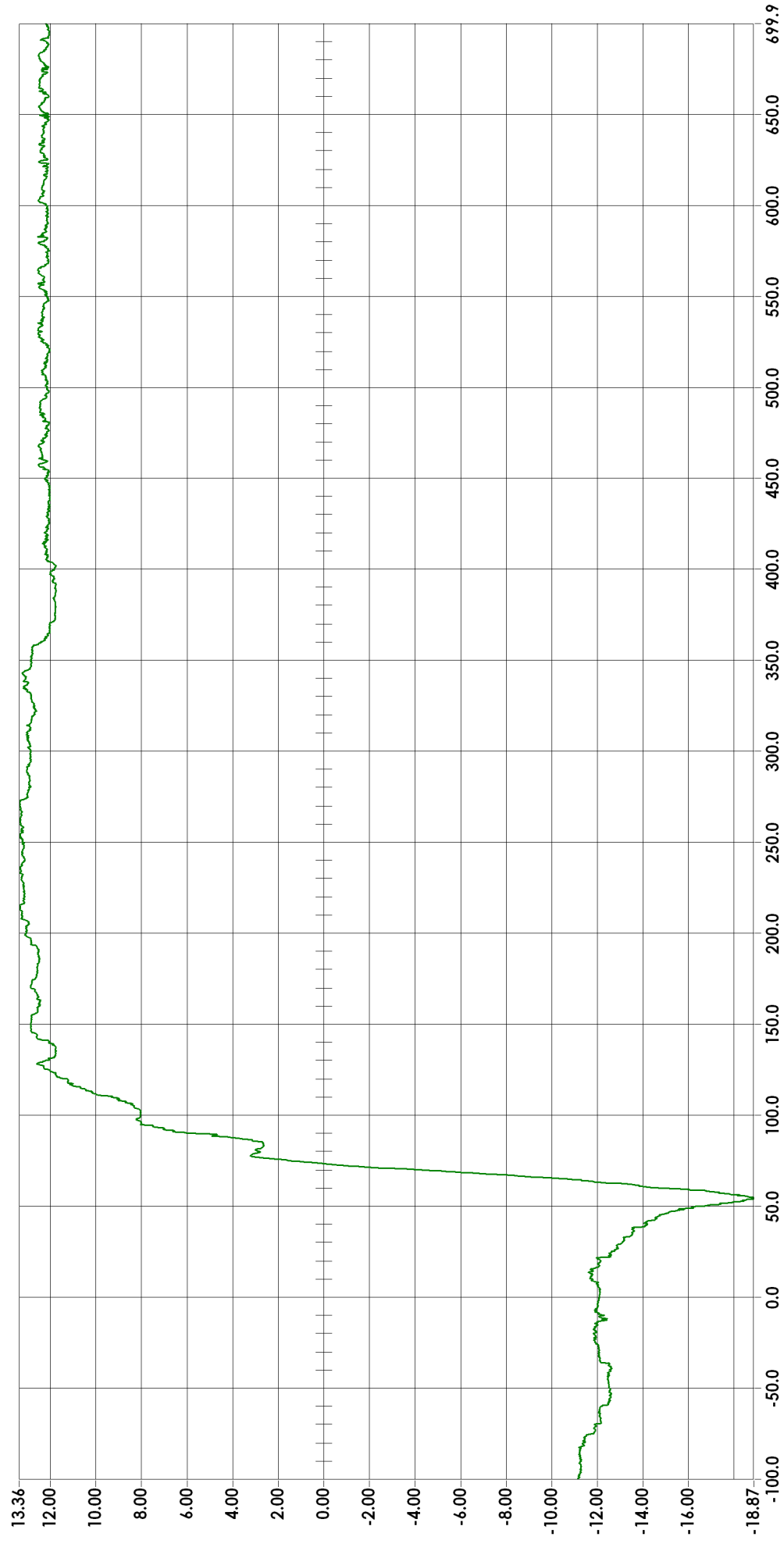


Max	34.75	DEG	at	95.44	msec
Min	-6.58	DEG	at	63.76	msec

SOI004 Plot 093

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	ANKR
		Sensor Info	CONTELEC PD210-4B
		Serial Number	ANKLX 0255

Driver right ankle (y) rotation YL



Time (msec)

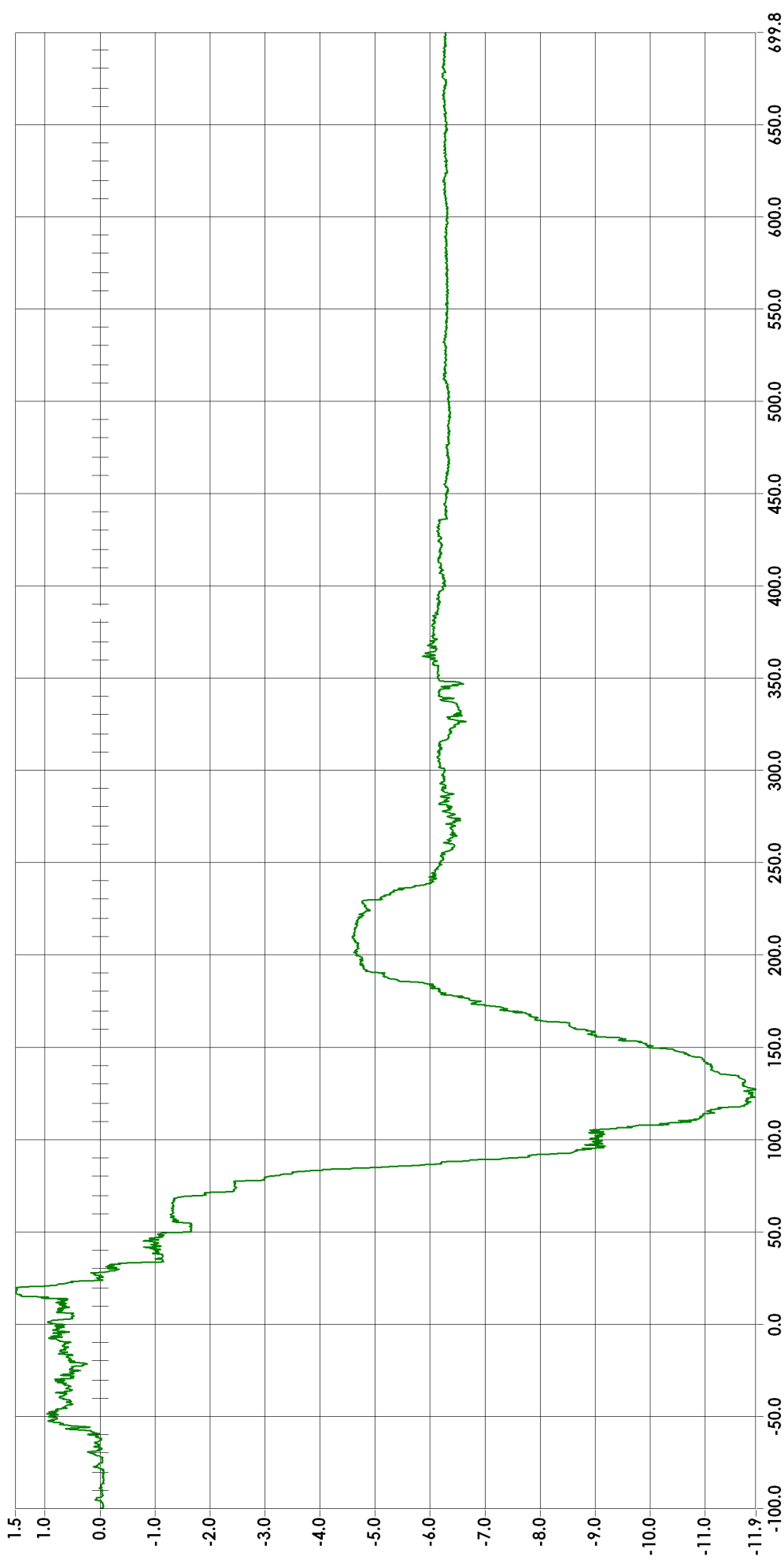
Max	13.36	DEG	at	270.16	msec
Min	-18.87	DEG	at	54.16	msec

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SOI004 Plot 094

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	ANKR
		Sensor Info	CONTELEC PD210-4B
		Serial Number	ANKLX 0256

Driver right ankle (z) rotation ZL



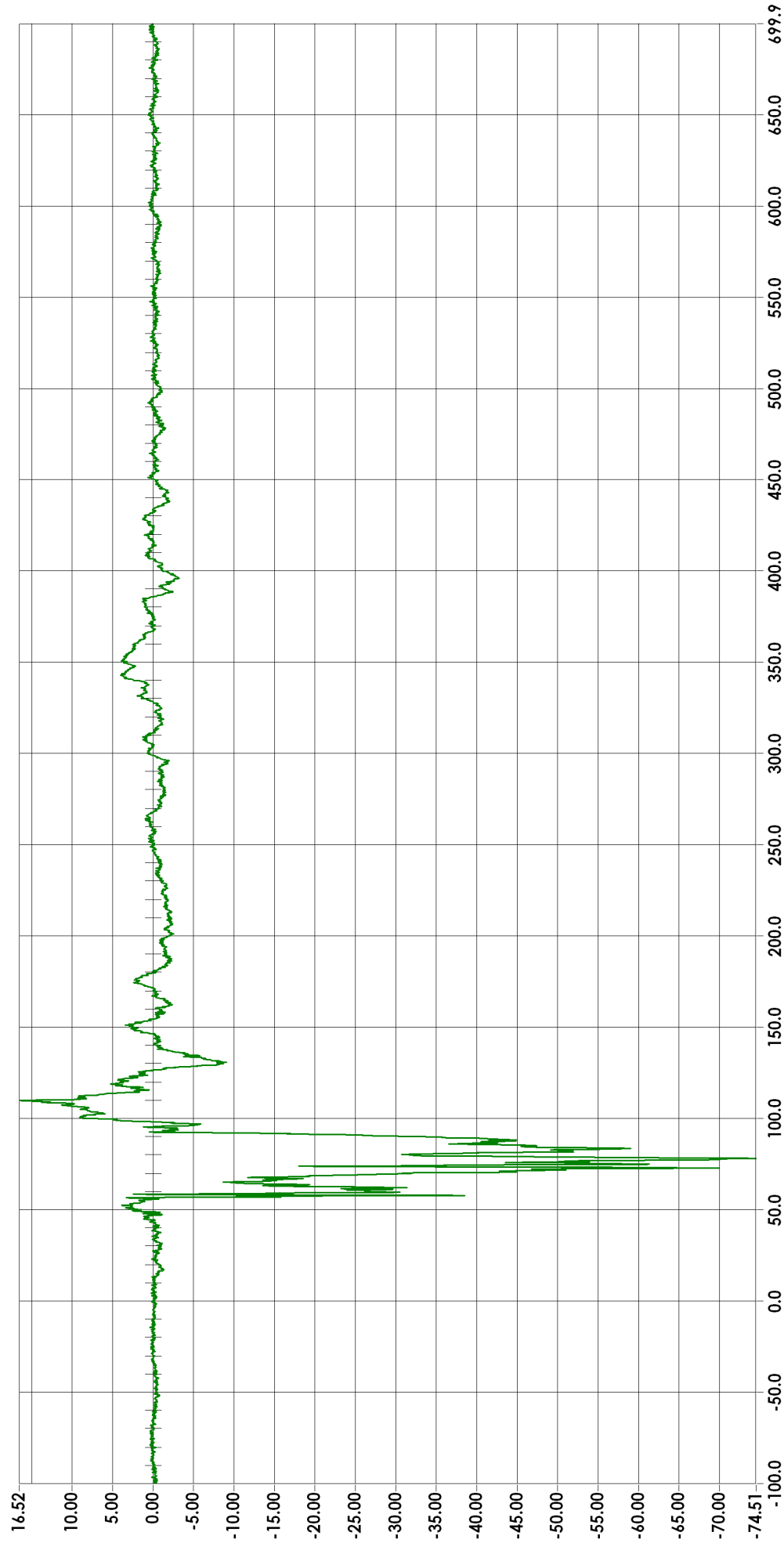
Time (msec)

Max	1.53	DEG	at	17.12	msec
Min	-11.92	DEG	at	127.20	msec

SOI004 Plot 095

Test ID	SO1004	Filter	CFC1000	Sensor Location	TIBR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P52114
		Prefrigger Points	1250		

G's Driver right tibia (x) acceleration XL



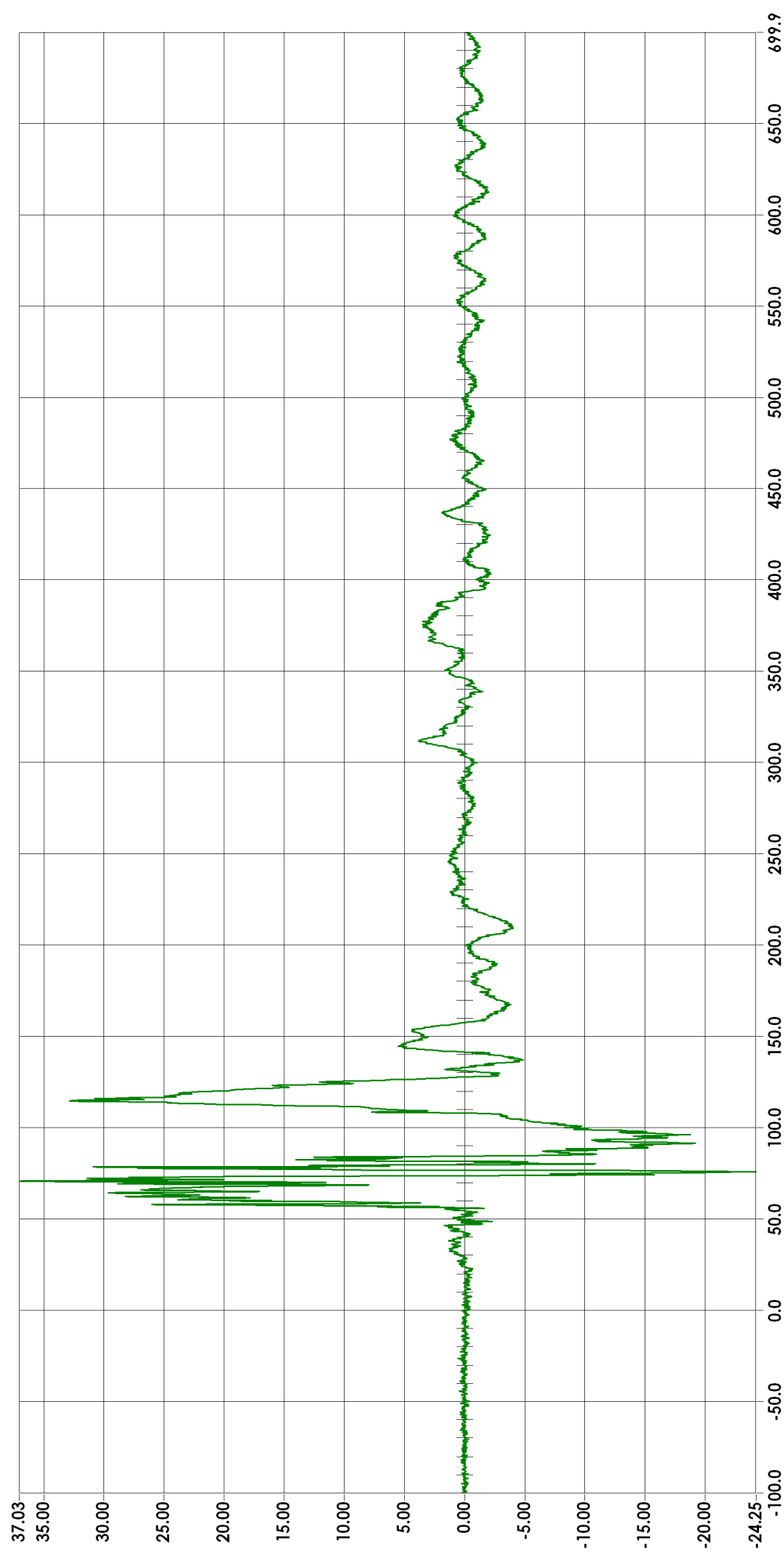
Time (msec)

Max	16.52	G's	at	109.84	msec
Min	-74.51	G's	at	78.16	msec

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Test ID	SOI004	Filter	CFC1000	Sensor Location	TIBR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2000TZ
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	P52087
		Prefrigger Points	1250		

G's Driver right tibia (y) acceleration YL



Time (msec)

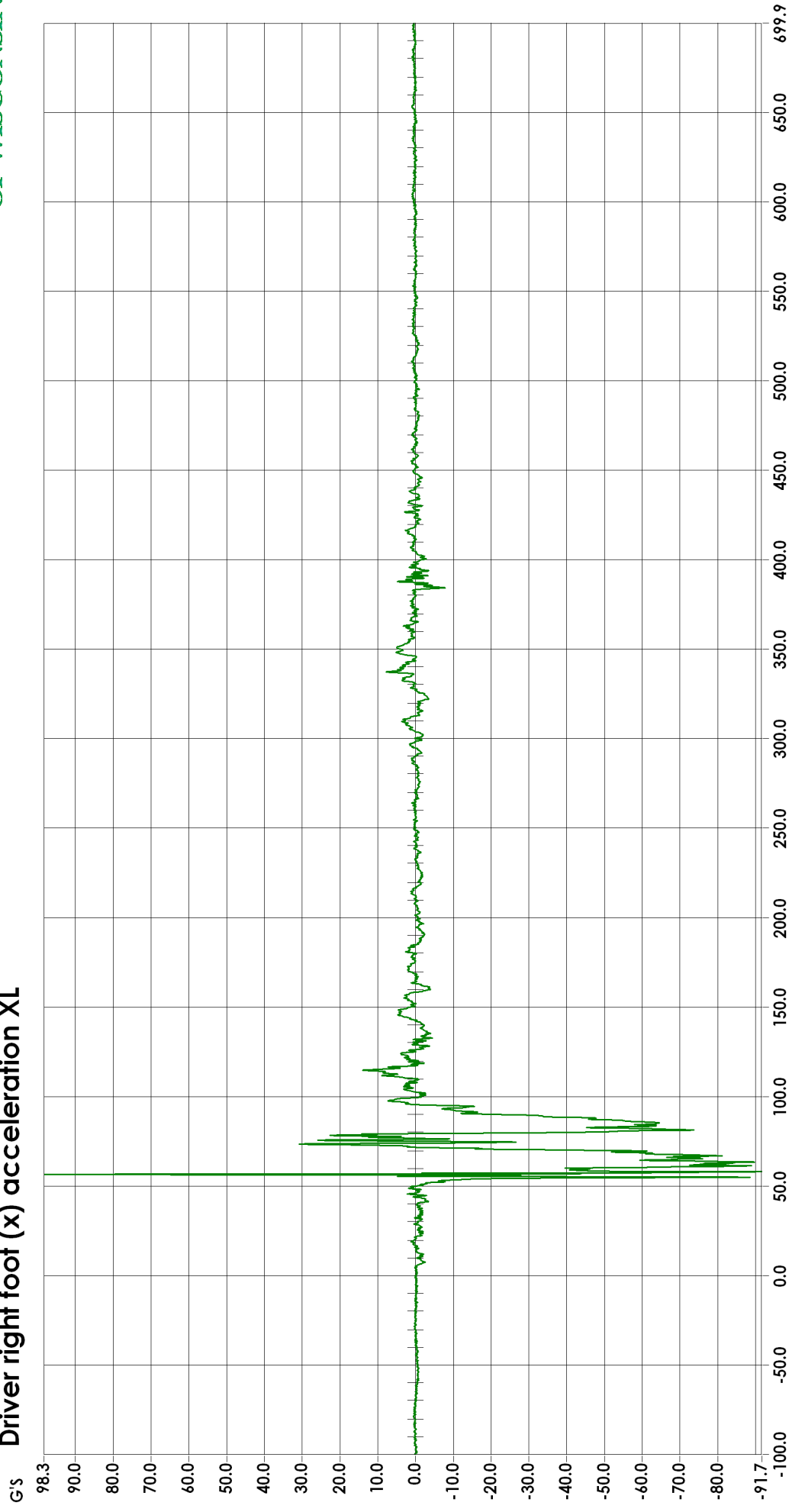
Max	37.03	G's	at	70.72	msec
Min	-24.25	G's	at	75.92	msec

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Test ID	SOI004	Filter	CFC1000	Sensor Location	FOTR
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENTRAN EGEBC-2000
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	98H13-F01
		Pretrigger Points	1250		

Driver right foot (x) acceleration XL



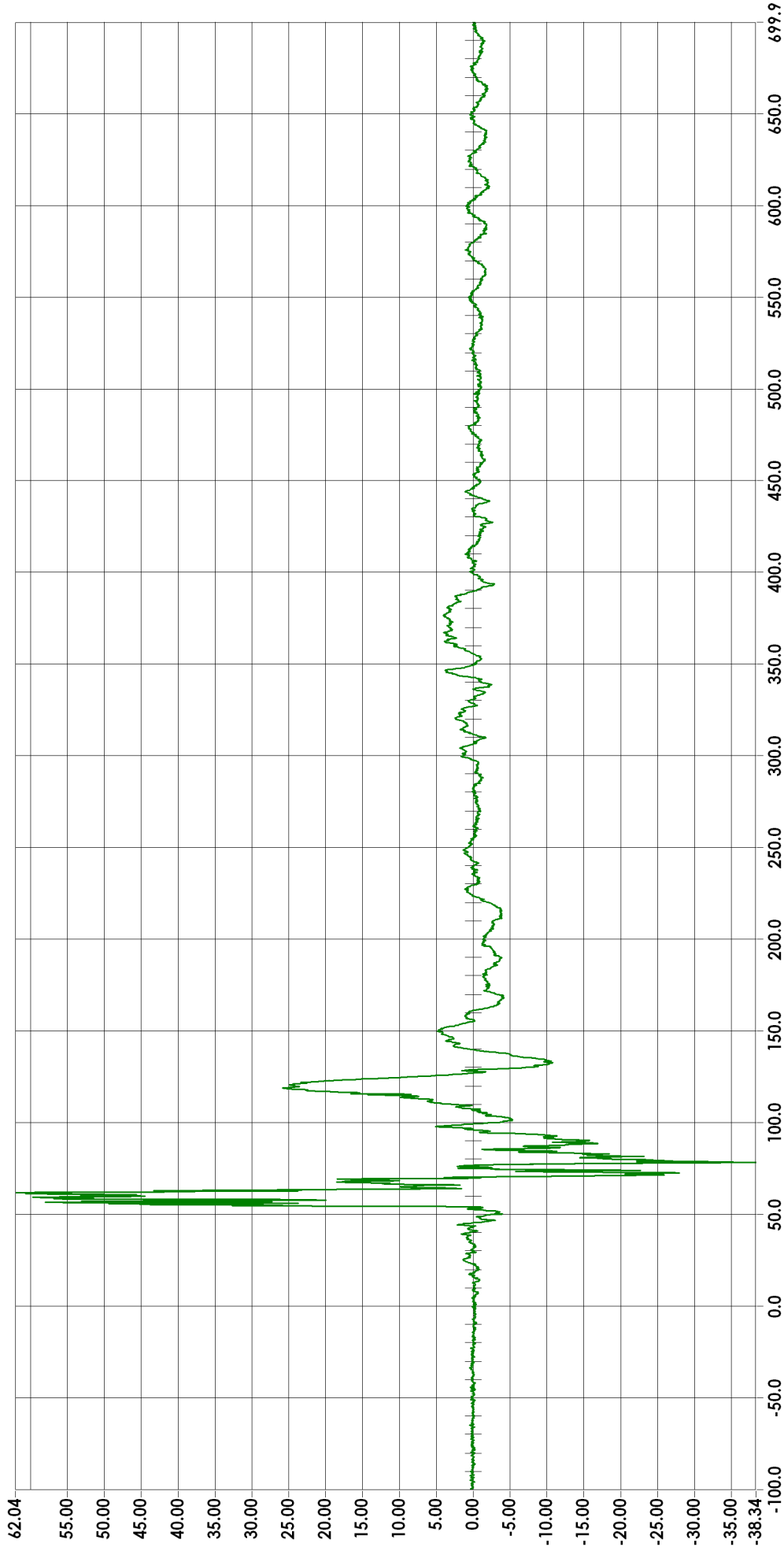
Max	98.34	G's	at	56.48	msec
Min	-91.69	G's	at	58.00	msec

SOI004 Plot 098

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FOTR
		Sensor Info	ENTRAN EGEBC-2000
		Serial Number	98H10-F12

G's Driver right foot (y) acceleration YL



Time (msec)

Max	62.04	G's	at	61.84	msec
Min	-38.34	G's	at	78.32	msec

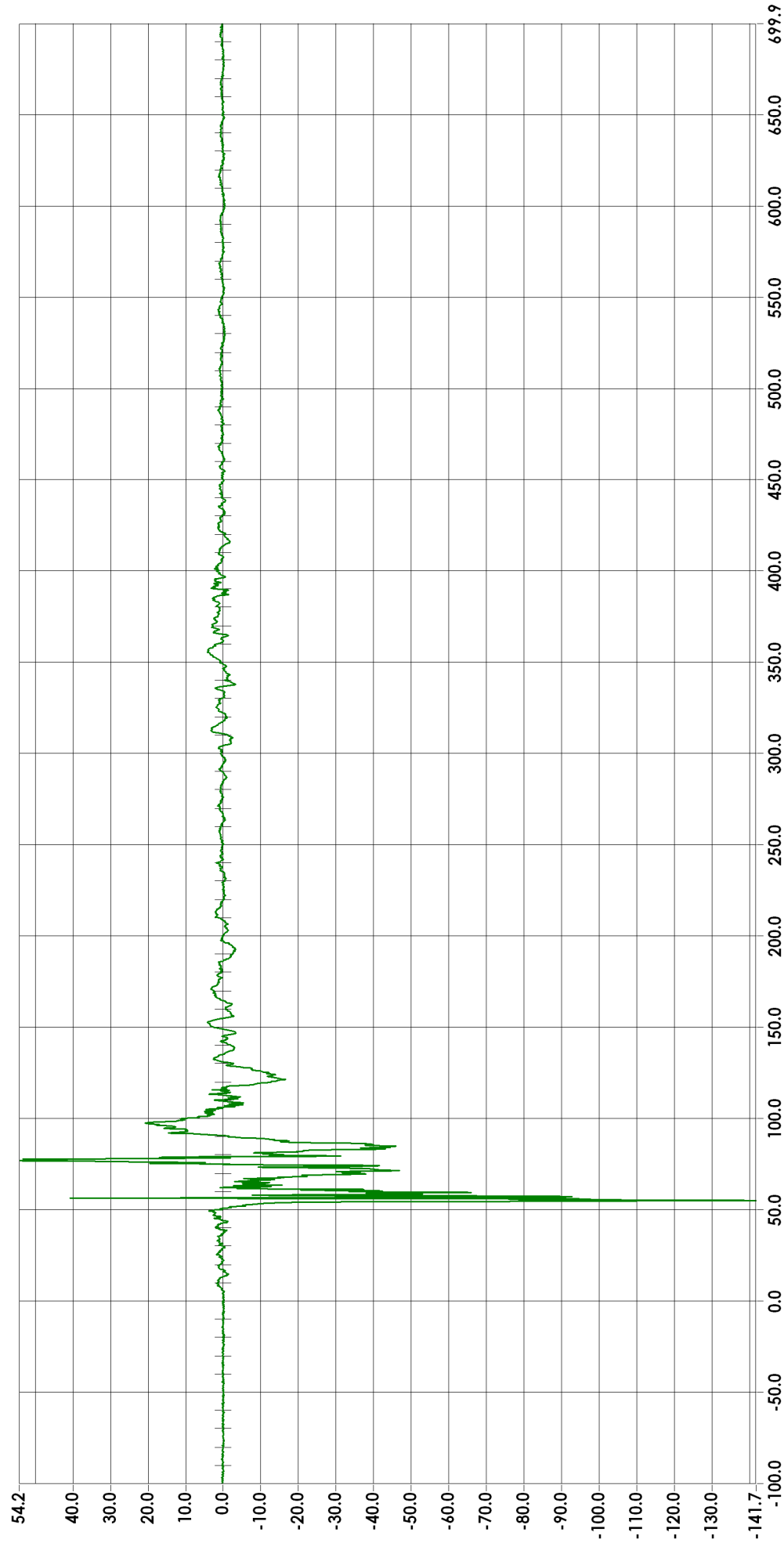
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Milwaukee, WI 53295

SOI004 Plot 099



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FOTR
		Sensor Info	ENTRAN EGE6Q-2000
		Serial Number	06A07-R14

G's Driver right foot (z) acceleration ZL



Time (msec)

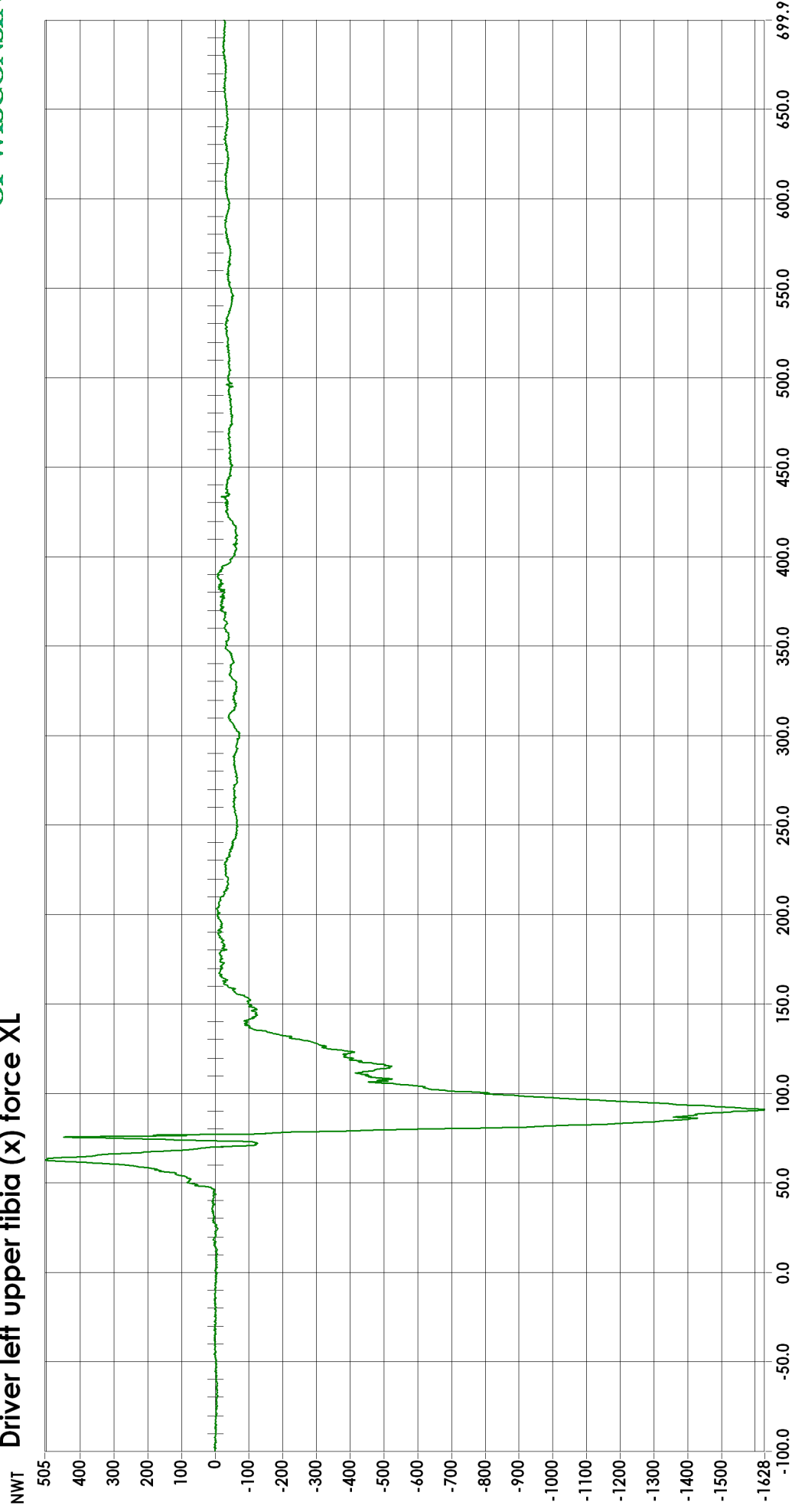
Max	54.22	G's	at	76.88	msec
Min	-141.73	G's	at	55.12	msec

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SOI004 Plot 100

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	TBLU
		Sensor Info	Denton 4509J
		Serial Number	4509J_89_FX

Driver left upper tibia (x) force XL



Time (msec)

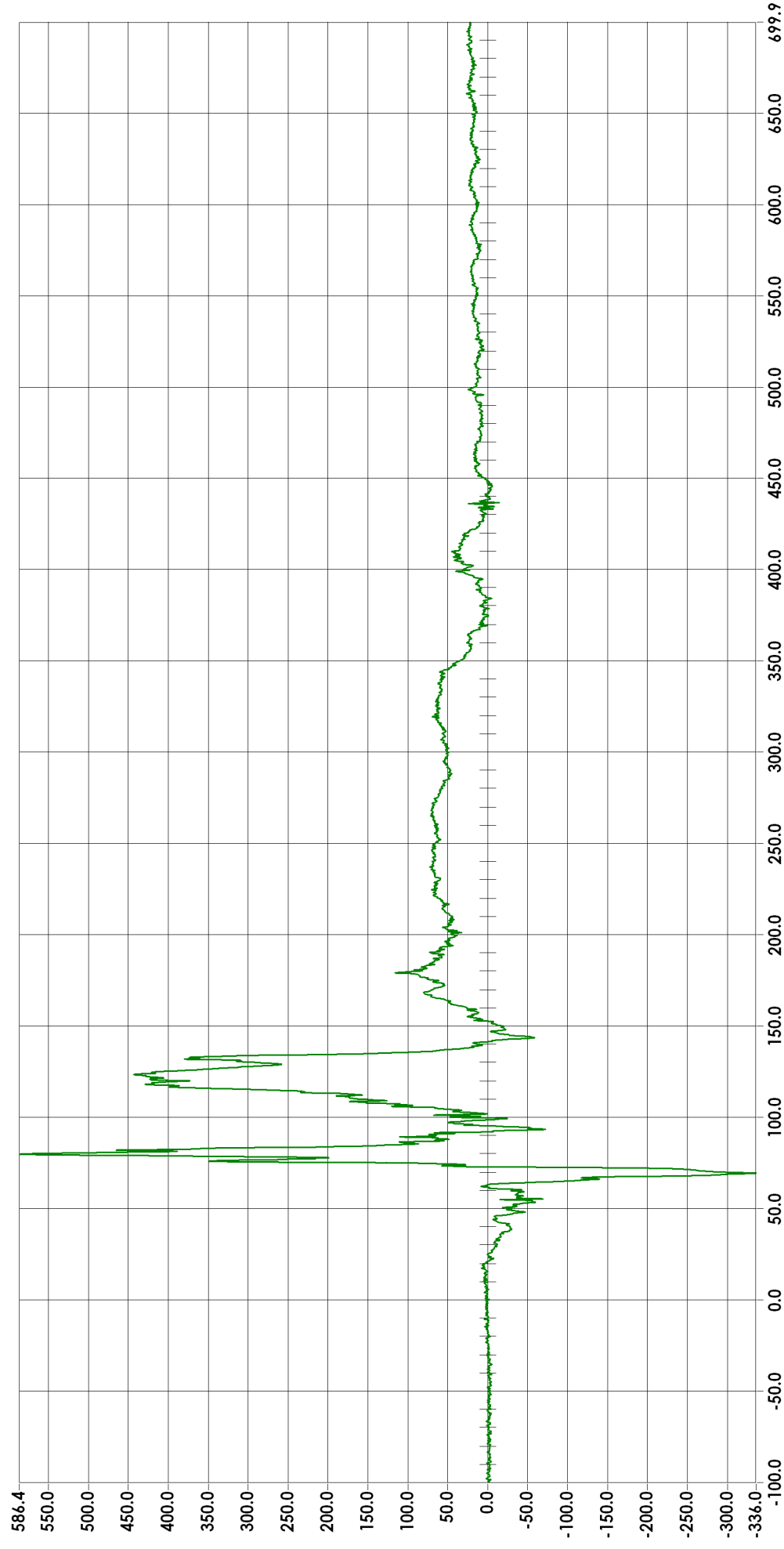
Max 504.75 NWT at 62.88 msec
Min -1628.33 NWT at 90.96 msec

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	TBLU
		Sensor Info	Denton 4509J
		Serial Number	4509J_89_FY

NWT Driver left upper tibia (y) force YL



Time (msec)

Max	586.42	NWT	at	79.84	msec
Min	-336.03	NWT	at	69.44	msec

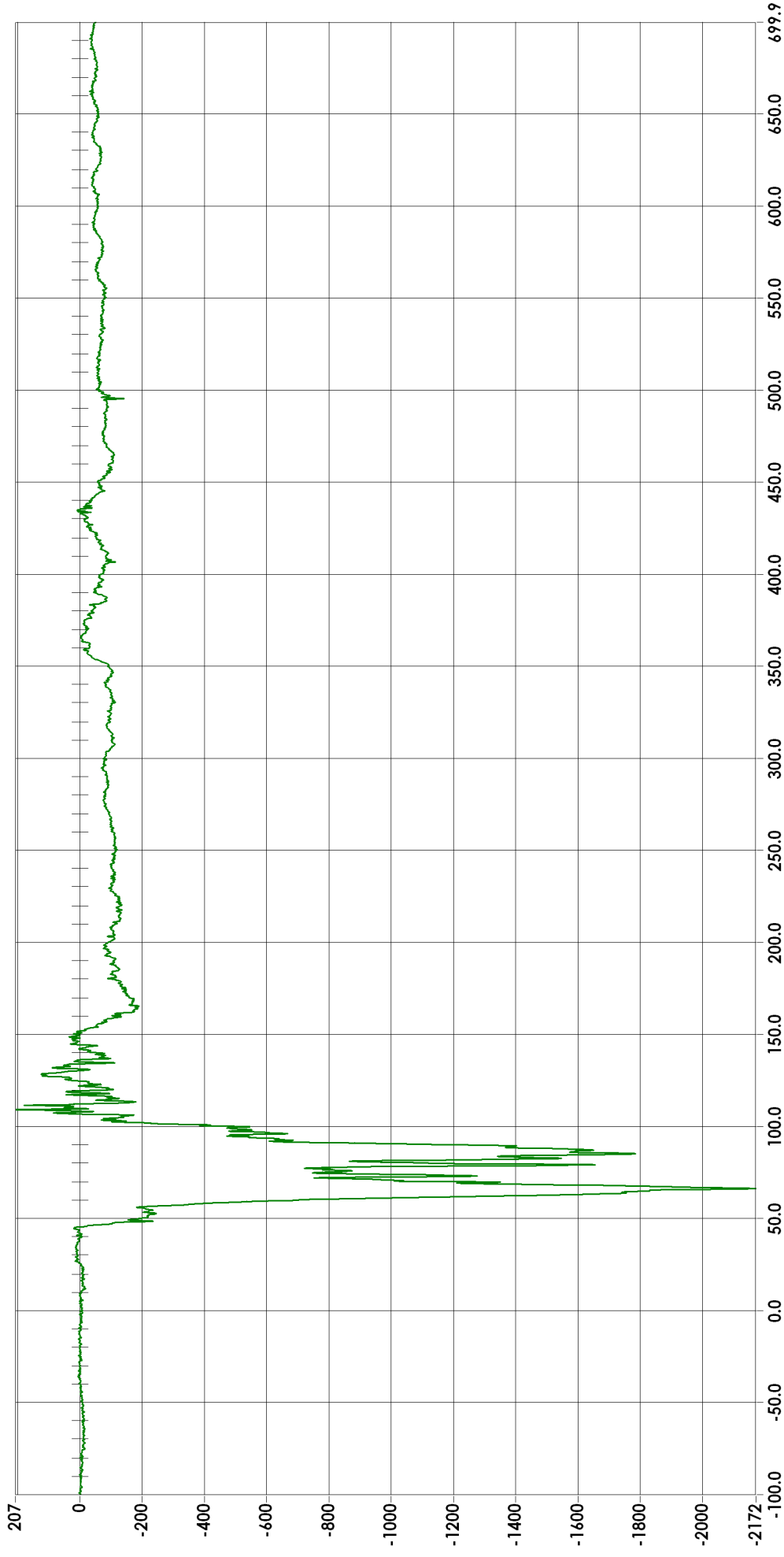
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Milwaukee, WI 53295

SOI004 Plot 102



Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	TBLU
		Sensor Info	Denton 4509J
		Serial Number	4509J_89_FZ

Driver left upper tibia (z) force ZL



Time (msec)

Max	207.17	NWT	at	109.20	msec
Min	-2172.16	NWT	at	66.32	msec

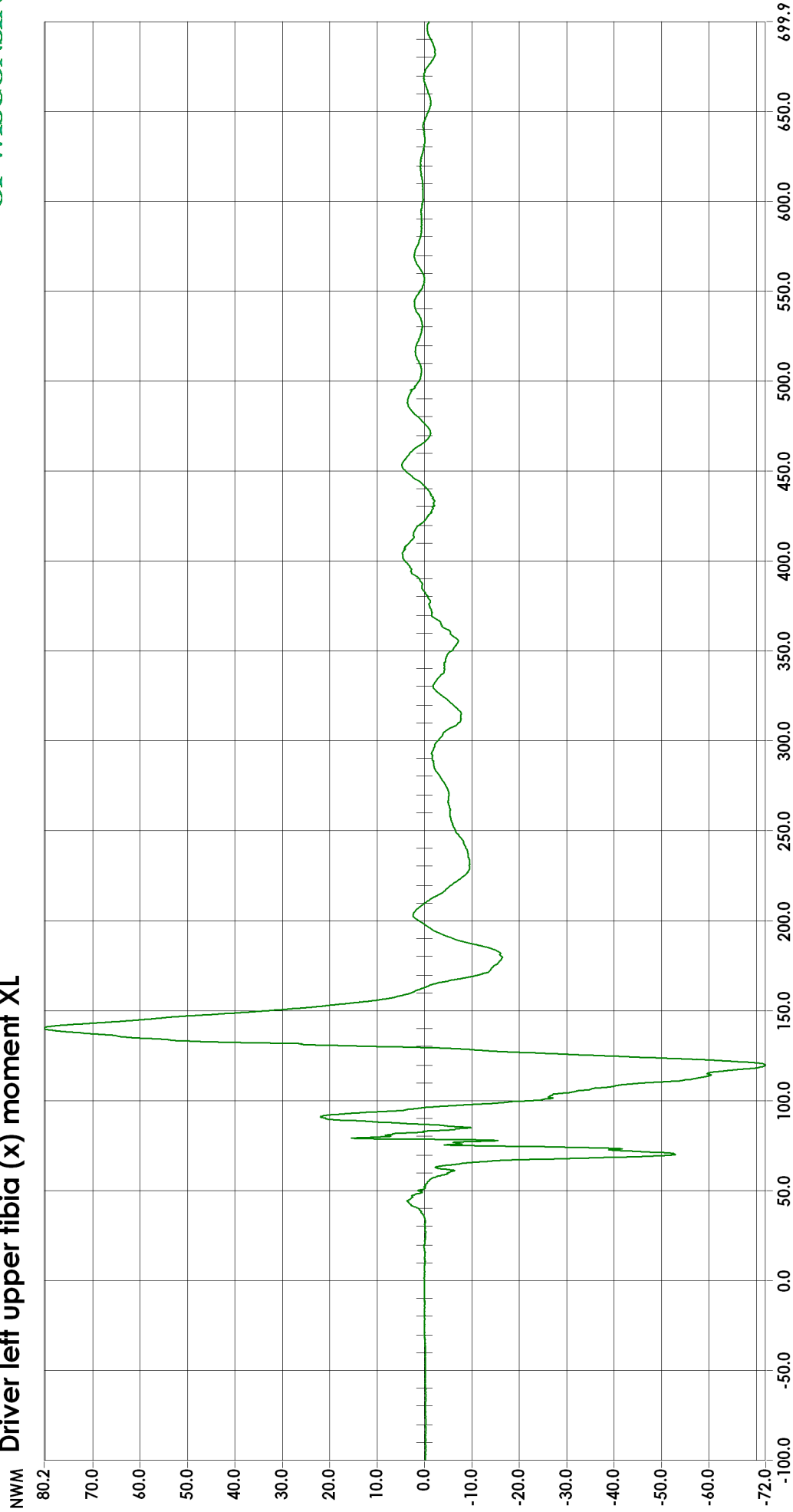
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SOI004 Plot 103



Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	TBLU
		Sensor Info	Denton 4509J
		Serial Number	4509J_89_MX

Driver left upper tibia (x) moment XL



Max	80.21	NWM	at	140.08	msec
Min	-71.97	NWM	at	119.84	msec

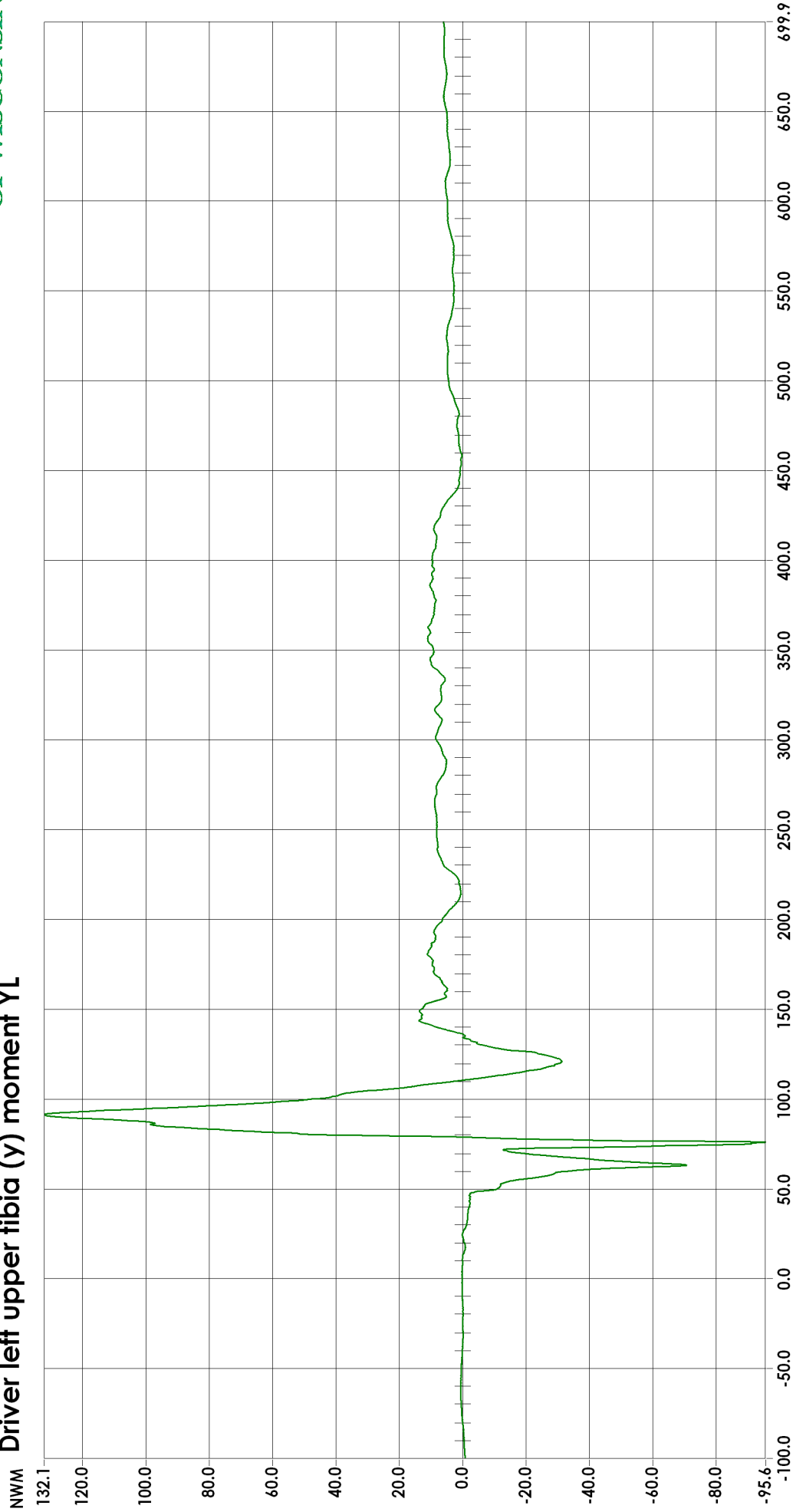
SOI004 Plot 104

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBLU
		Sensor Info	Denton 4509J
		Serial Number	4509J_89_MY

Driver left upper tibia (y) moment YL



Max	132.07	NWM	at	91.36	msec
Min	-95.58	NWM	at	76.00	msec

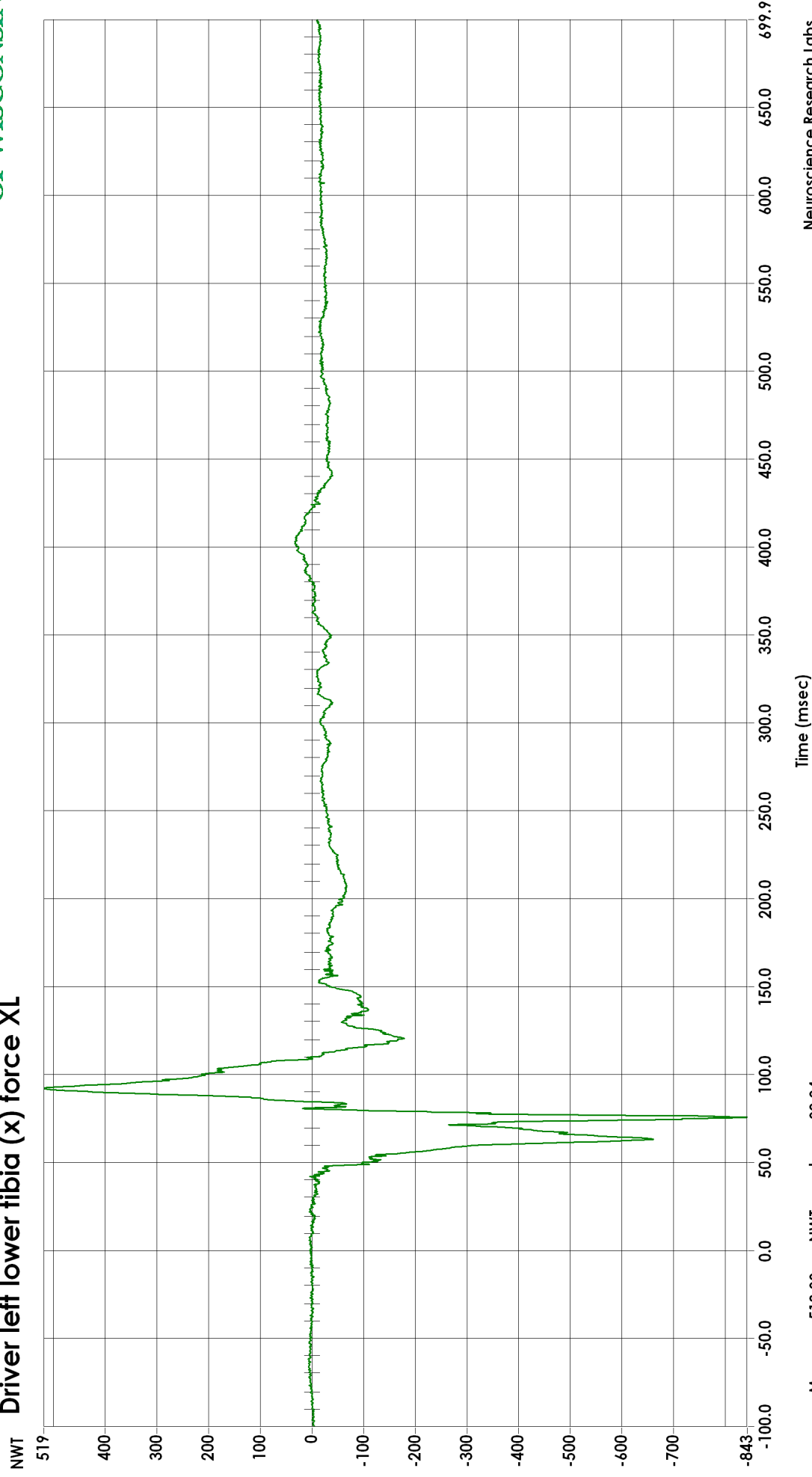
SOI004 Plot 105

Time (msec)

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Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBL
		Sensor Info	Denton 4929J
		Serial Number	4929J_121_FX

Driver left lower tibia (x) force XL

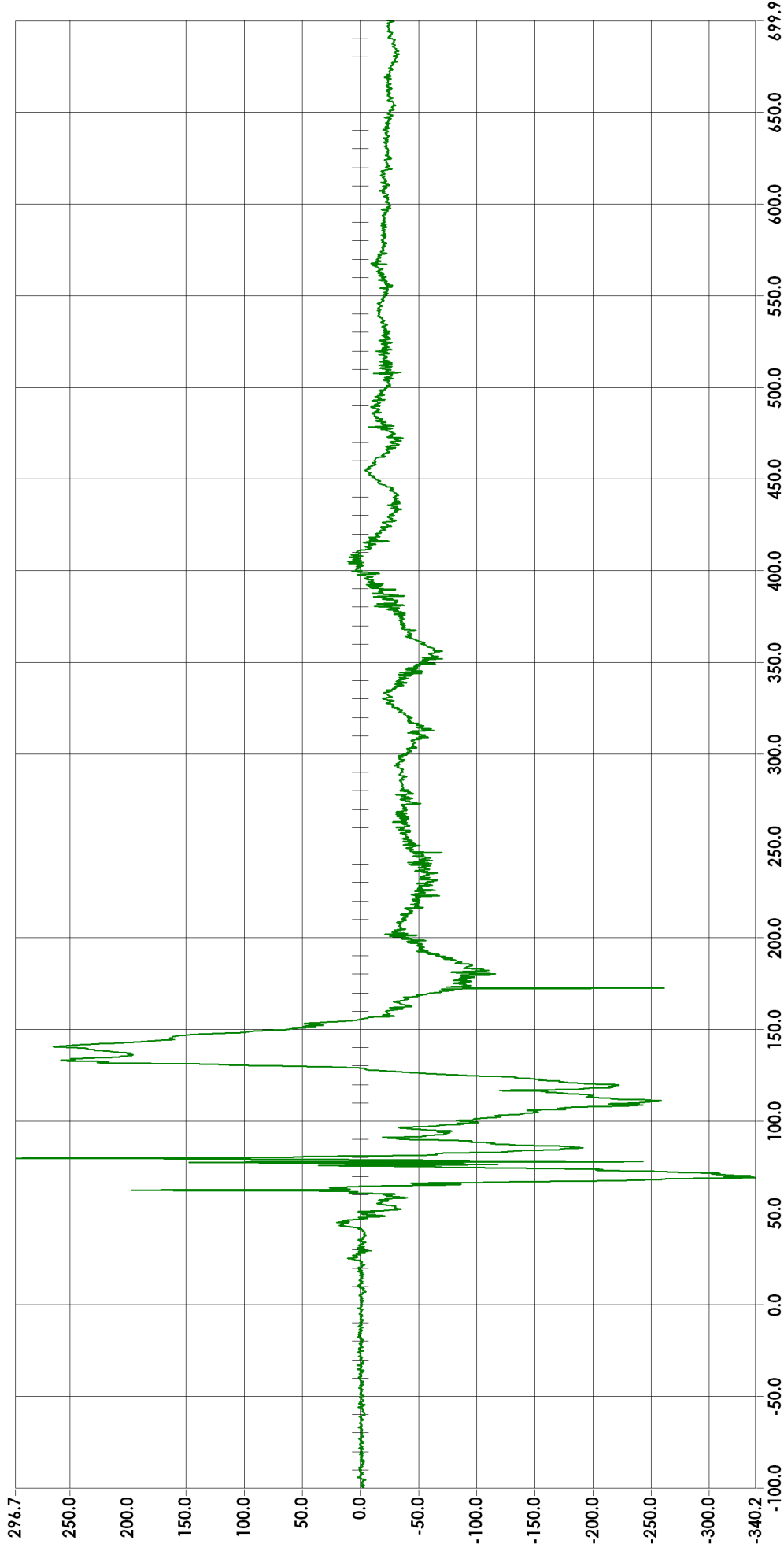


Max 518.99 NWT at 92.24 msec
Min -842.66 NWT at 75.76 msec



Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBLL
		Sensor Info	Denton 4929J
		Serial Number	4929J_121_FY

Driver left lower tibia (y) force YL



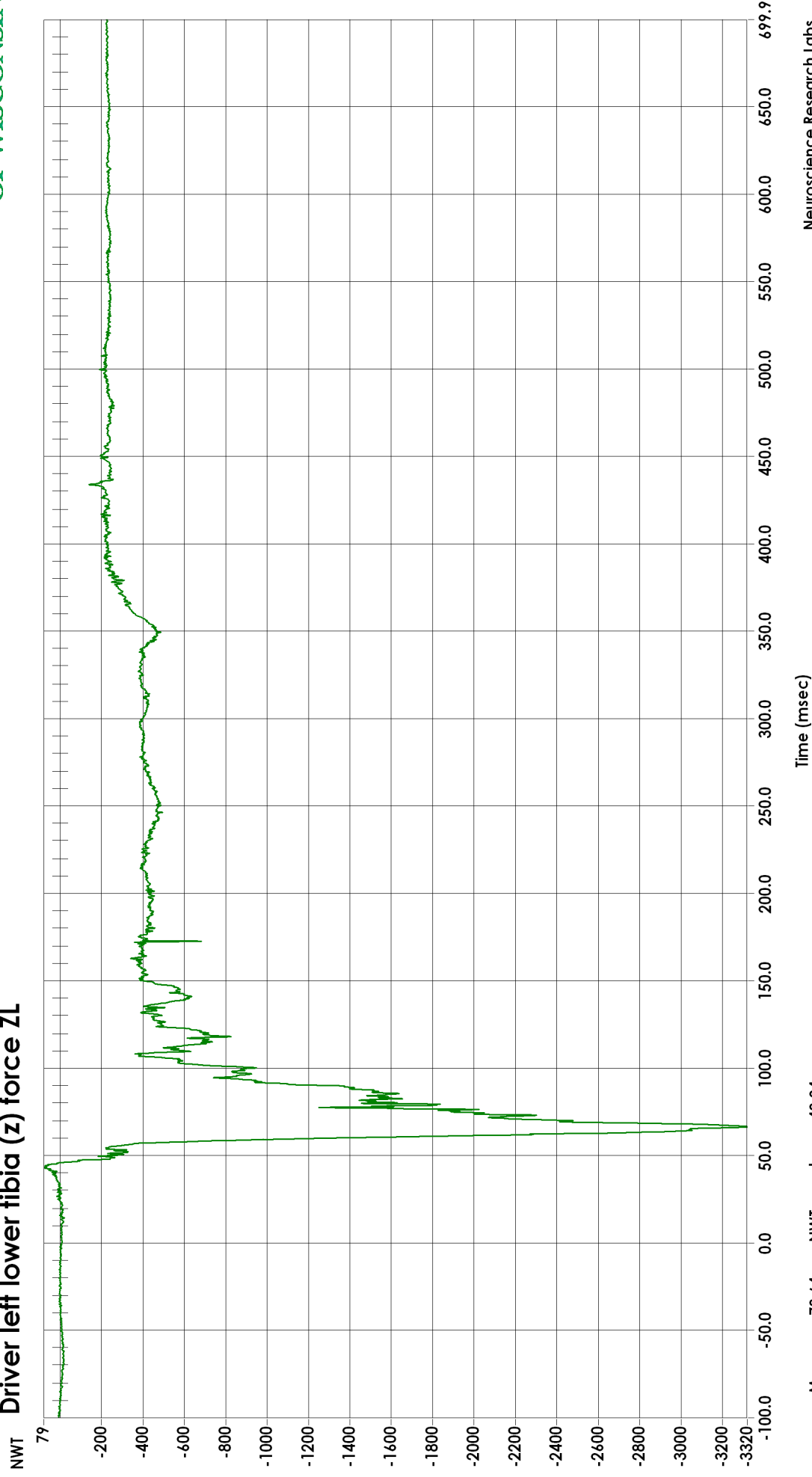
Max	296.70	NWT	at	79.84	msec
Min	-340.20	NWT	at	69.36	msec

SOI004 Plot 107

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Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TBLL
		Sensor Info	Denton 4929J
		Serial Number	4929J_121_FZ

Driver left lower tibia (z) force ZL



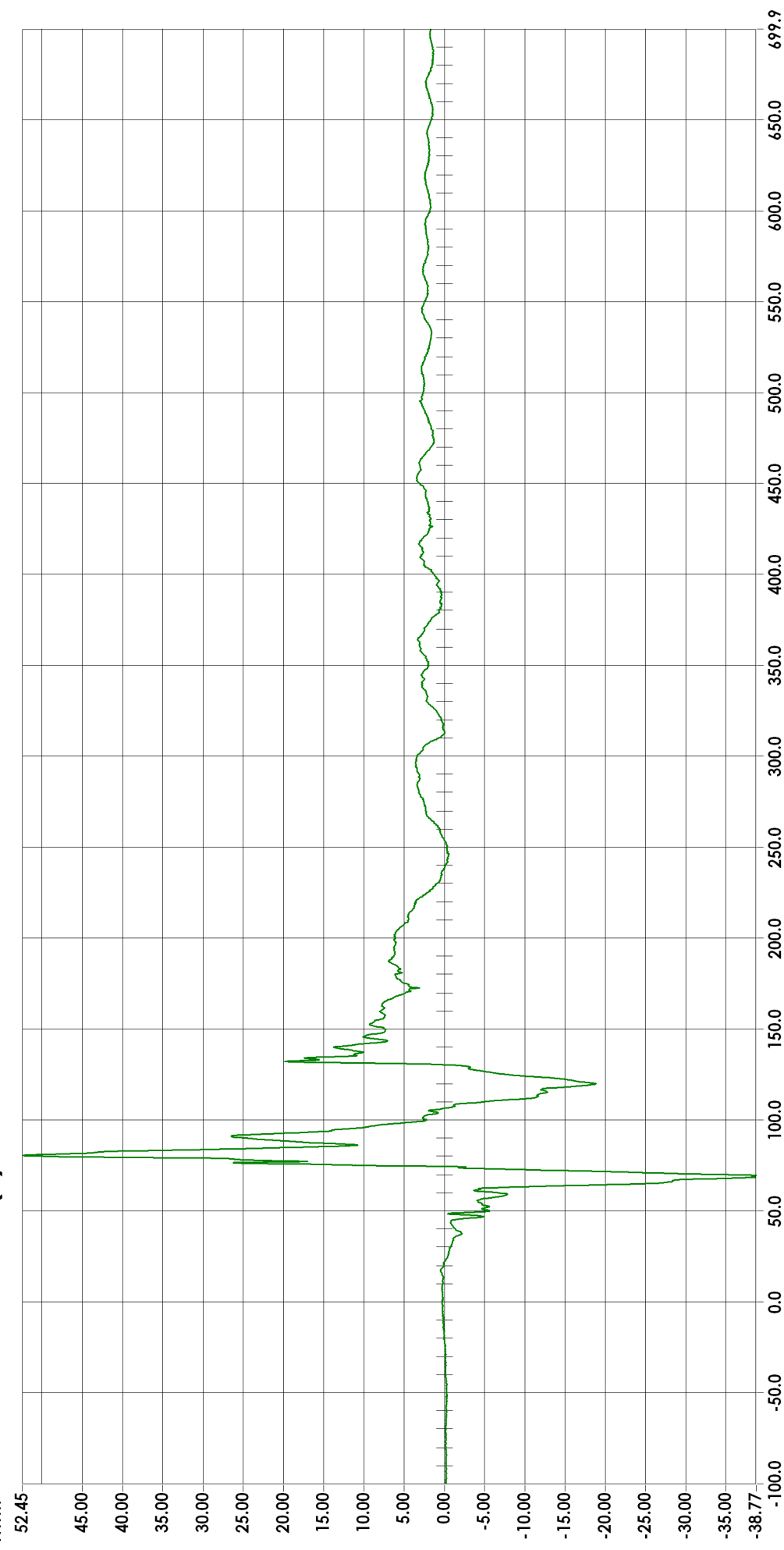
Max	78.64	NWT	at	43.04	msec
Min	-3320.38	NWT	at	66.48	msec

SO1004 Plot 108



Test ID	SO1004	Filter	CFC600	Sensor Location	TBL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 4929J
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	4929J_121_MX

Driver left lower tibia (x) moment XL



Max	52.45	NWM	at	80.56	msec
Min	-38.77	NWM	at	69.52	msec

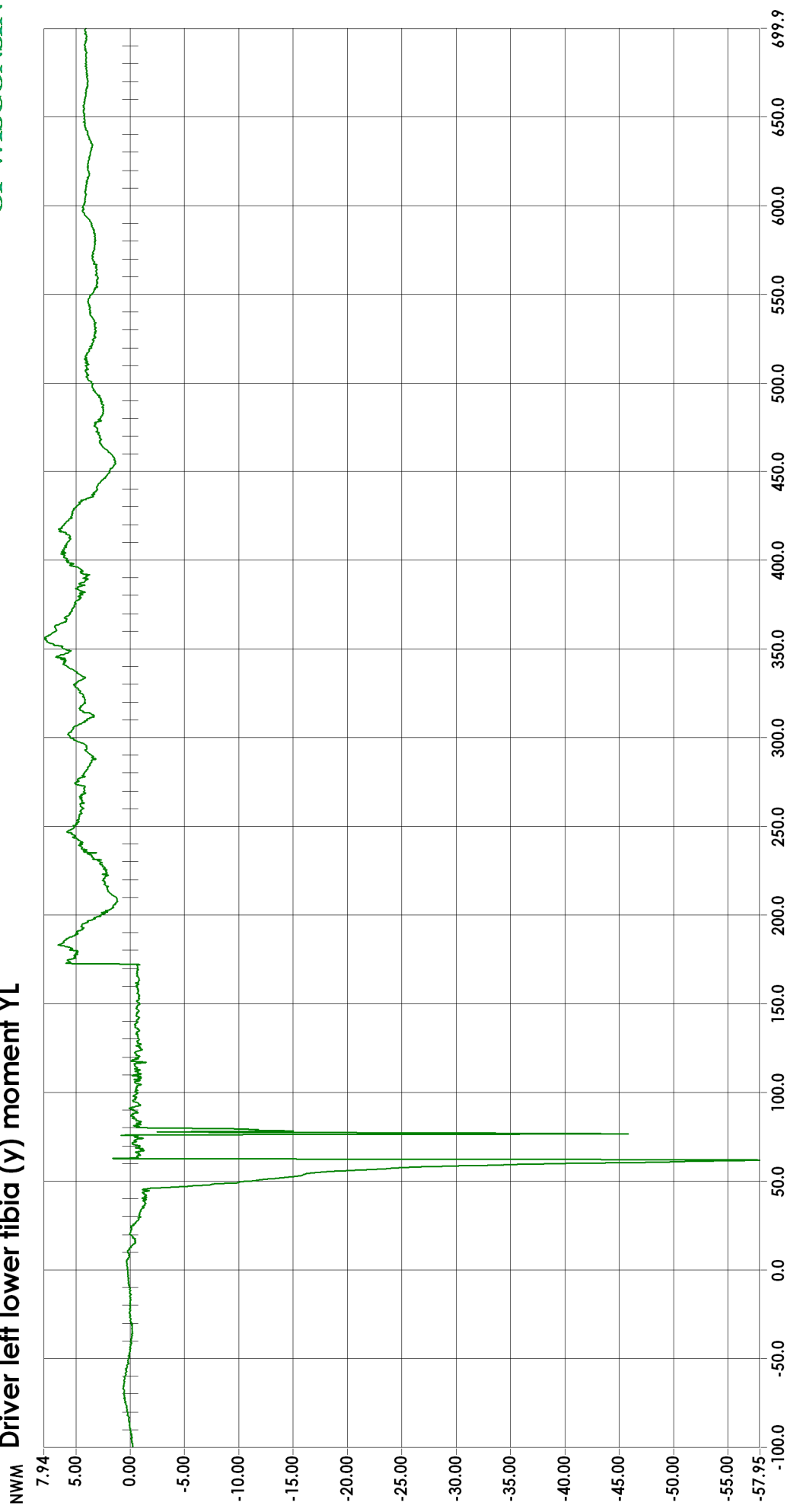
SO1004 Plot 109

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	TBLI
		Sensor Info	Denton 4929J
		Serial Number	4929J_121_MY

Driver left lower tibia (y) moment YL



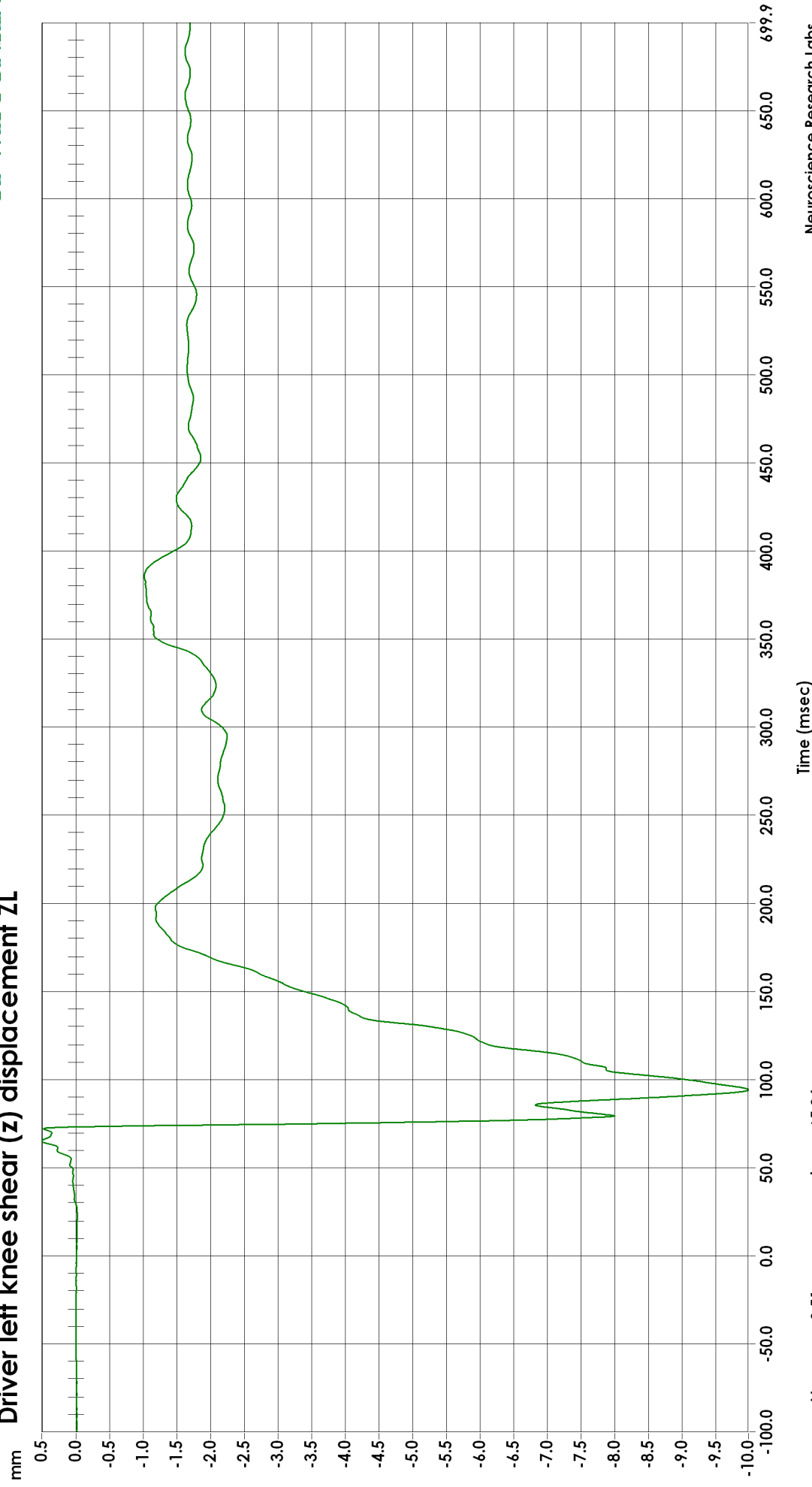
Max	7.94	NWM	at	356.40	msec
Min	-57.95	NWM	at	61.92	msec

SOI004 Plot 110

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Test ID	SOI004	Filter	CFC180	Sensor Location	KNEI
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Space Age Controls 150-0121VL
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	14691
		Prefrigger Points	1250		

Driver left knee shear (z) displacement ZL

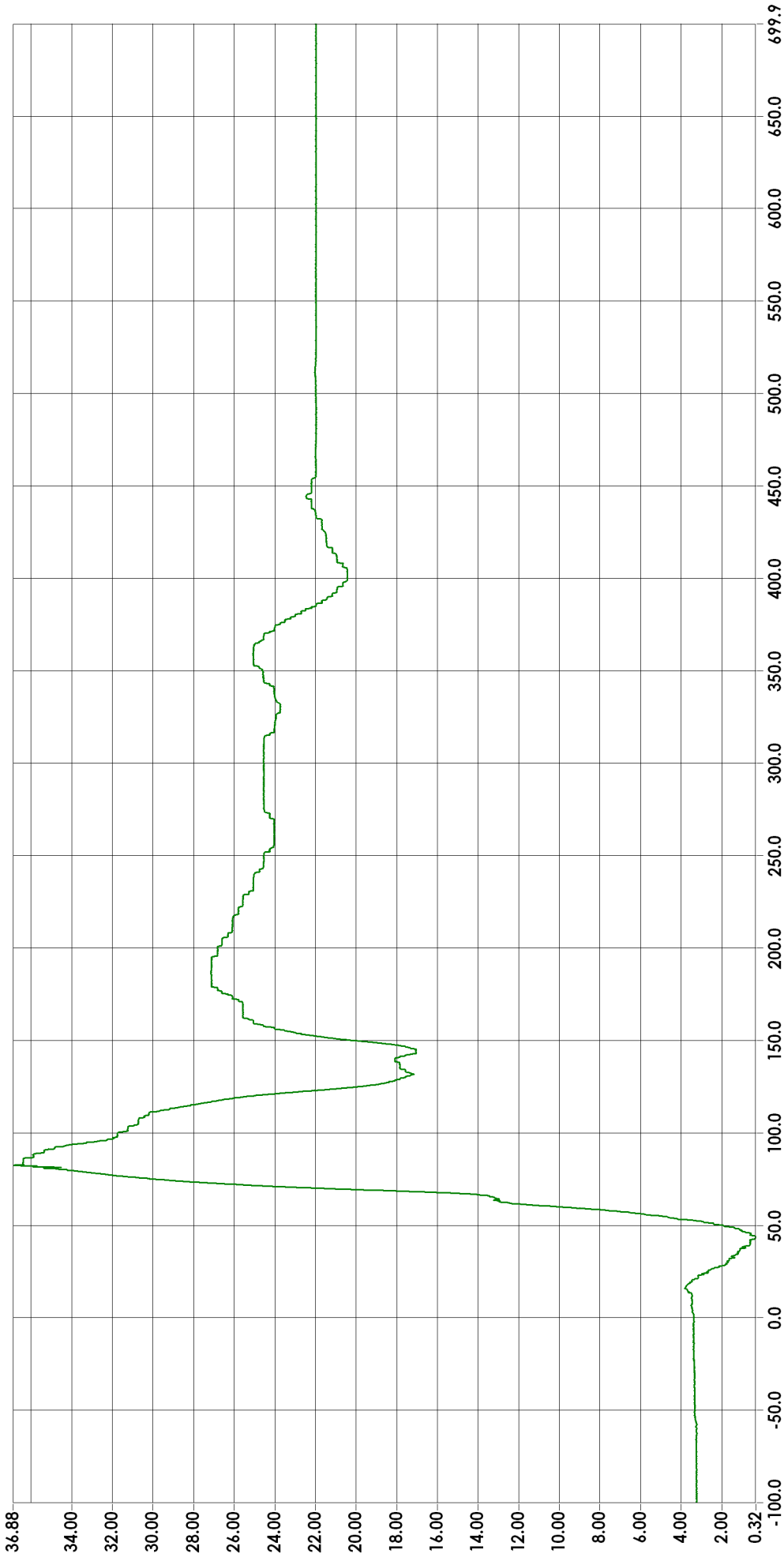


Max 0.51 mm at 65.04 msec
Min -9.99 mm at 94.24 msec

SOI004 Plot 111

Test ID	SOI004	Filter	CFC1000	Sensor Location	ANKL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	ANKLX 0326
		Pretrigger Points	1250		

Driver left ankle (x) rotation XL



Max	36.88	DEG	at	82.48	msec
Min	0.32	DEG	at	43.44	msec

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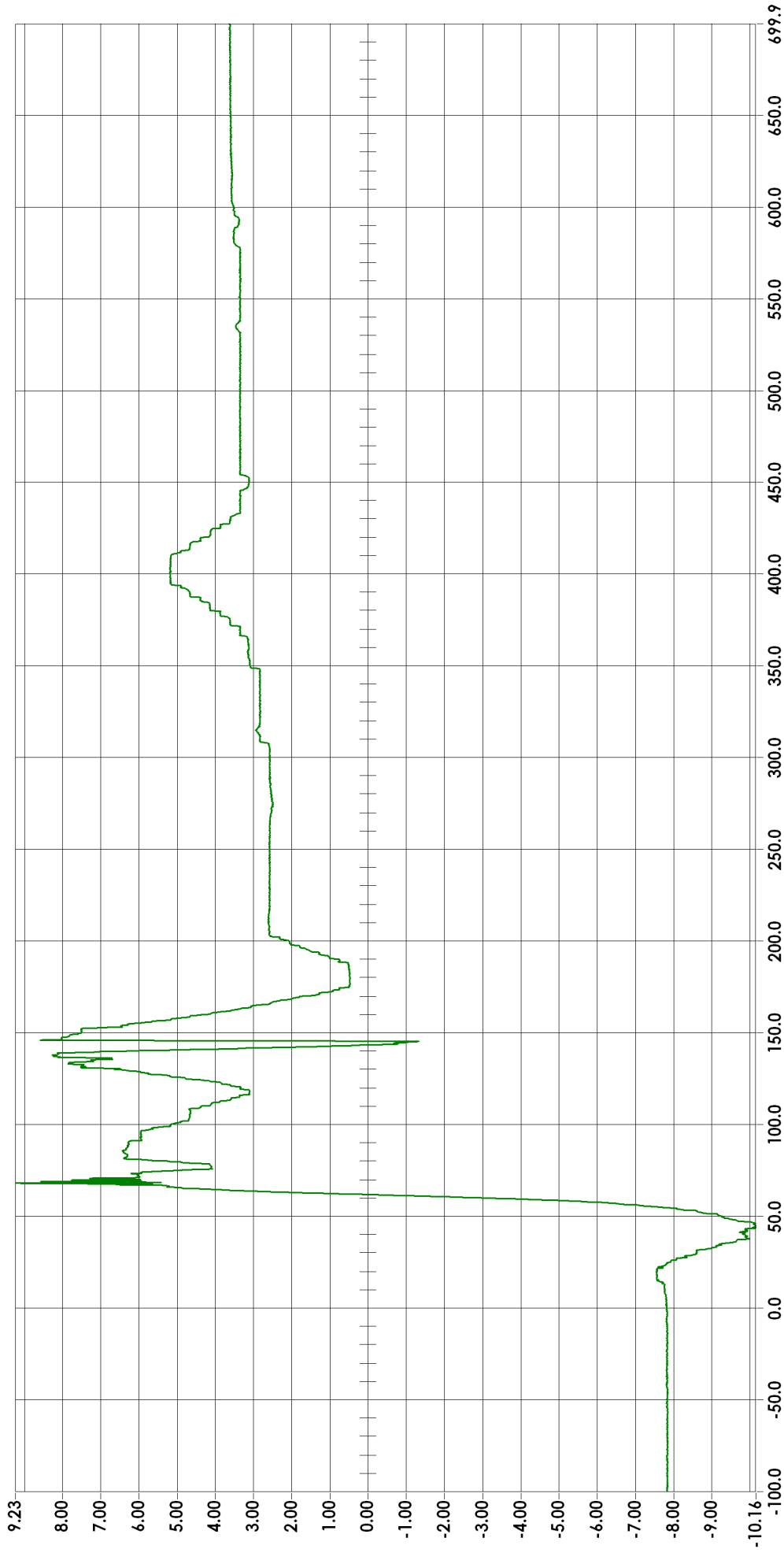
Test ID	SOI004	Filter	CFC1000	Sensor Location	ANKL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	CONTELEC PD210-4B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	ANKLX 0527
		Pretrigger Points	1250		

Driver left ankle (y) rotation YL



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	ANKL
		Sensor Info	CONTELEC PD210-4B
		Serial Number	ANKLX 0259

Driver left ankle (z) rotation ZL



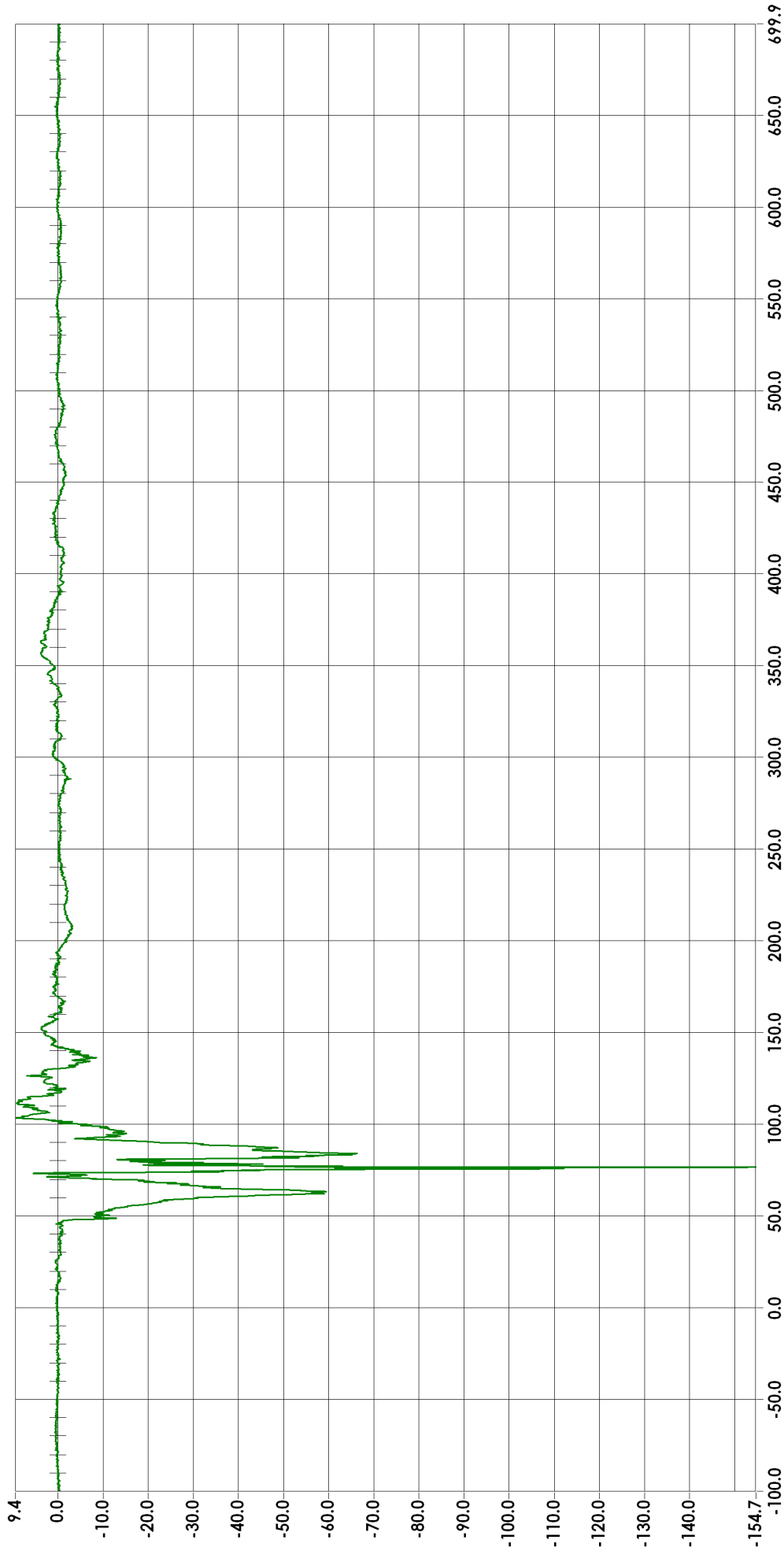
Time (msec)

Max	9.23	DEG	at	68.08	msec
Min	-10.16	DEG	at	43.60	msec

SOI004 Plot 114

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	TIBL
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P58806

G's Driver left tibia (x) acceleration XL



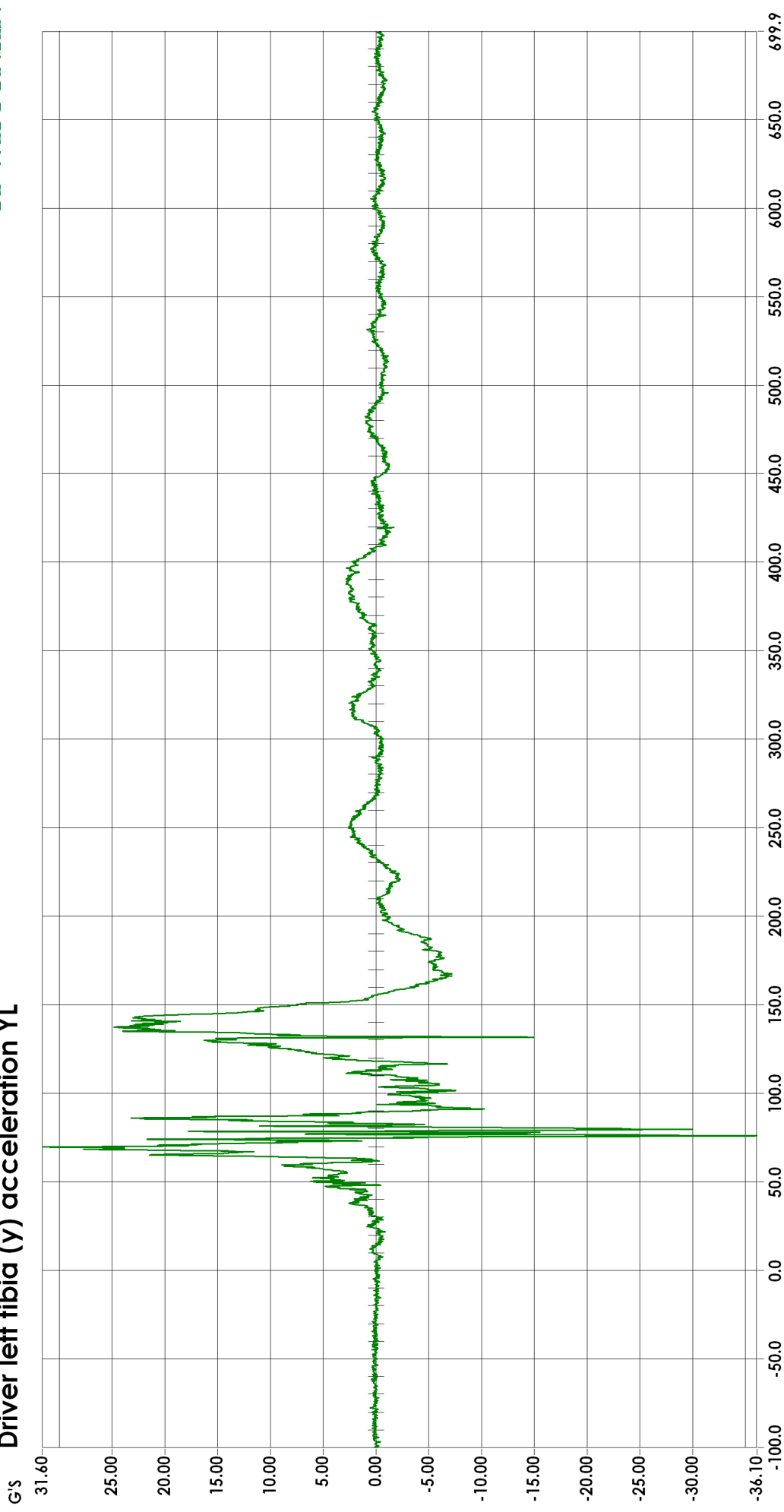
Time (msec)

Max	9.43	G's	at	103.44	msec
Min	-154.71	G's	at	76.56	msec

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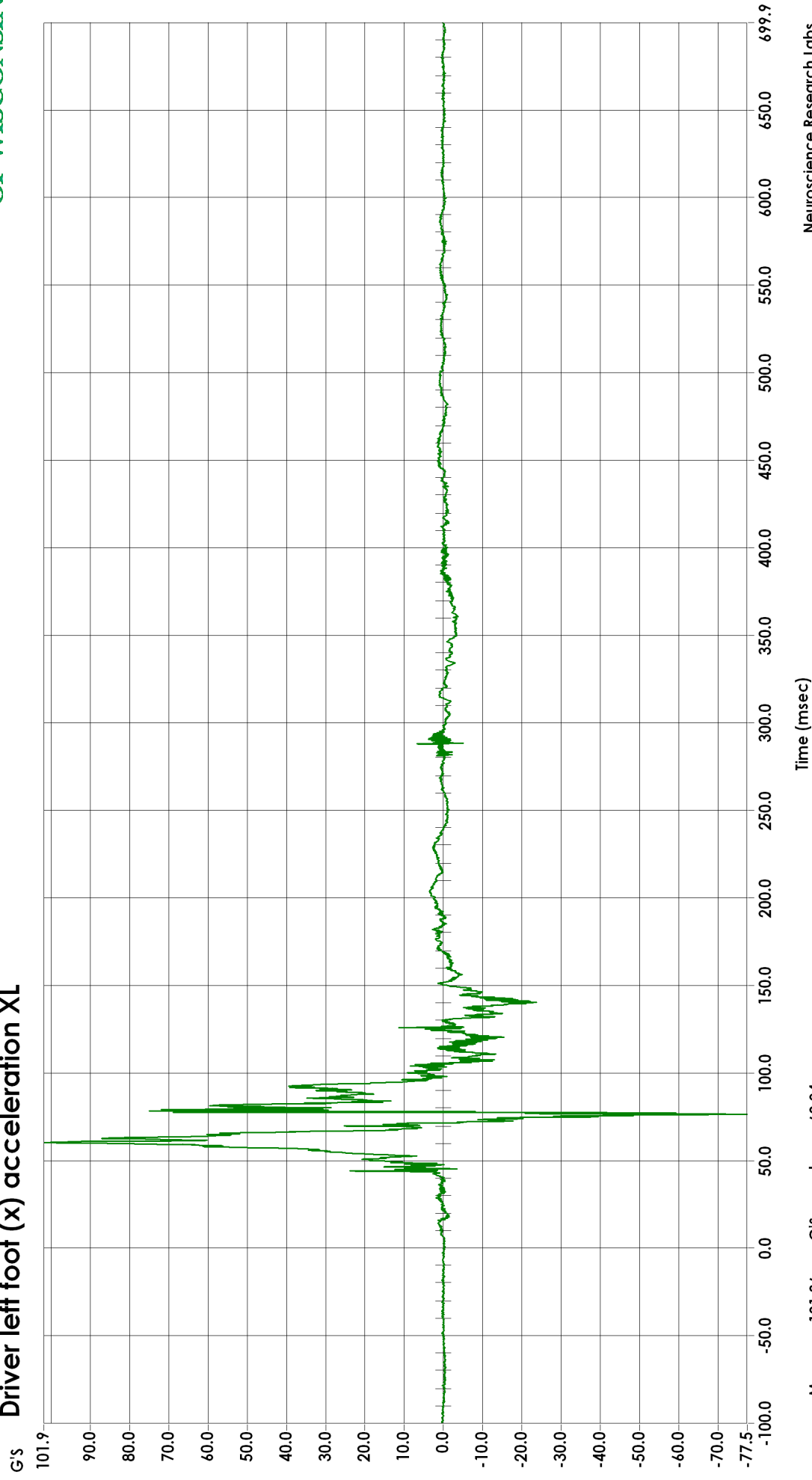
Driver left tibia (y) acceleration YL



Max	31.60	G's	at	69.76	msec
Min	-36.10	G's	at	76.08	msec

Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FOTL
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P52067

Driver left foot (x) acceleration XL

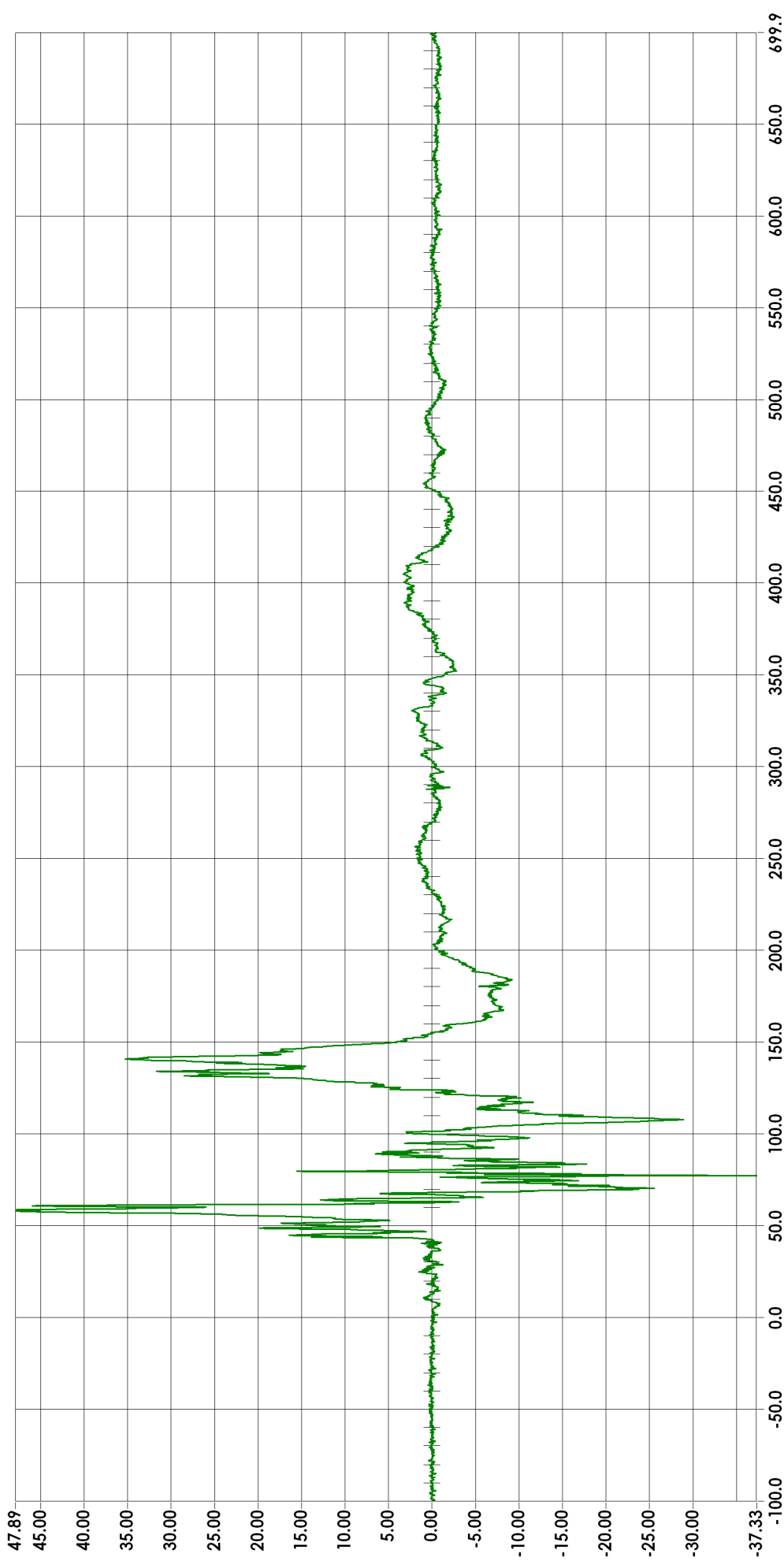


Max	101.86	G's	at	60.24	msec
Min	-77.50	G's	at	76.40	msec

SO1004 Plot 117

Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FOTL
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P58803

Driver left foot (y) acceleration YL



Time (msec)

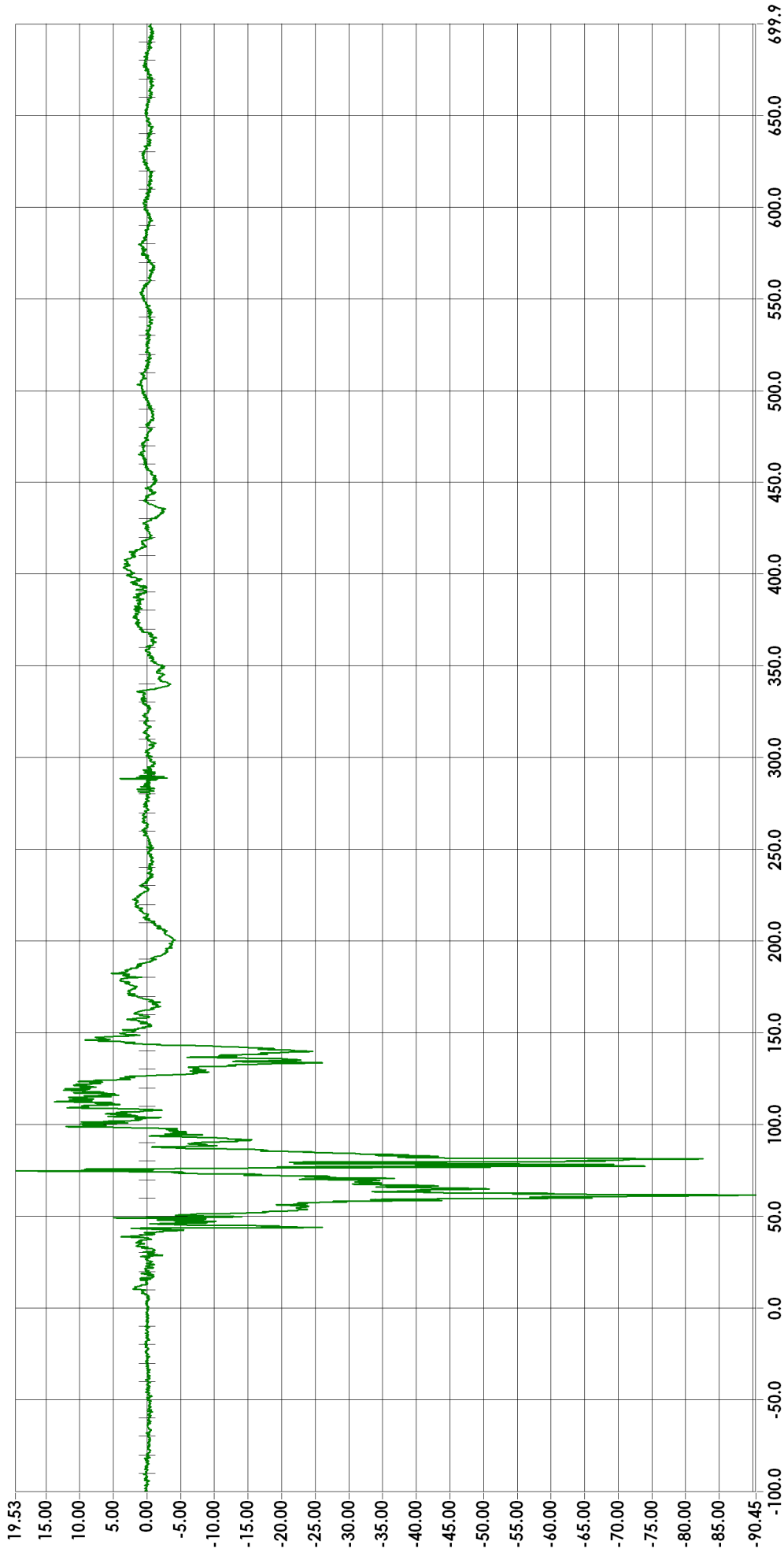
Max	47.89	G's	at	58.00	msec
Min	-37.33	G's	at	77.28	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	FOTL
		Sensor Info	ENDEVCO 7264C-2000TZ
		Serial Number	P50092

Driver left foot (z) acceleration ZL



Time (msec)

Max	19.53	G's	at	74.72	msec
Min	-90.45	G's	at	61.60	msec

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC1000

Sampling Rate (Hz)

12500

Number of Points

10000

Prefrigger Points

1250

Sensor Location

HDCG

Sensor Info

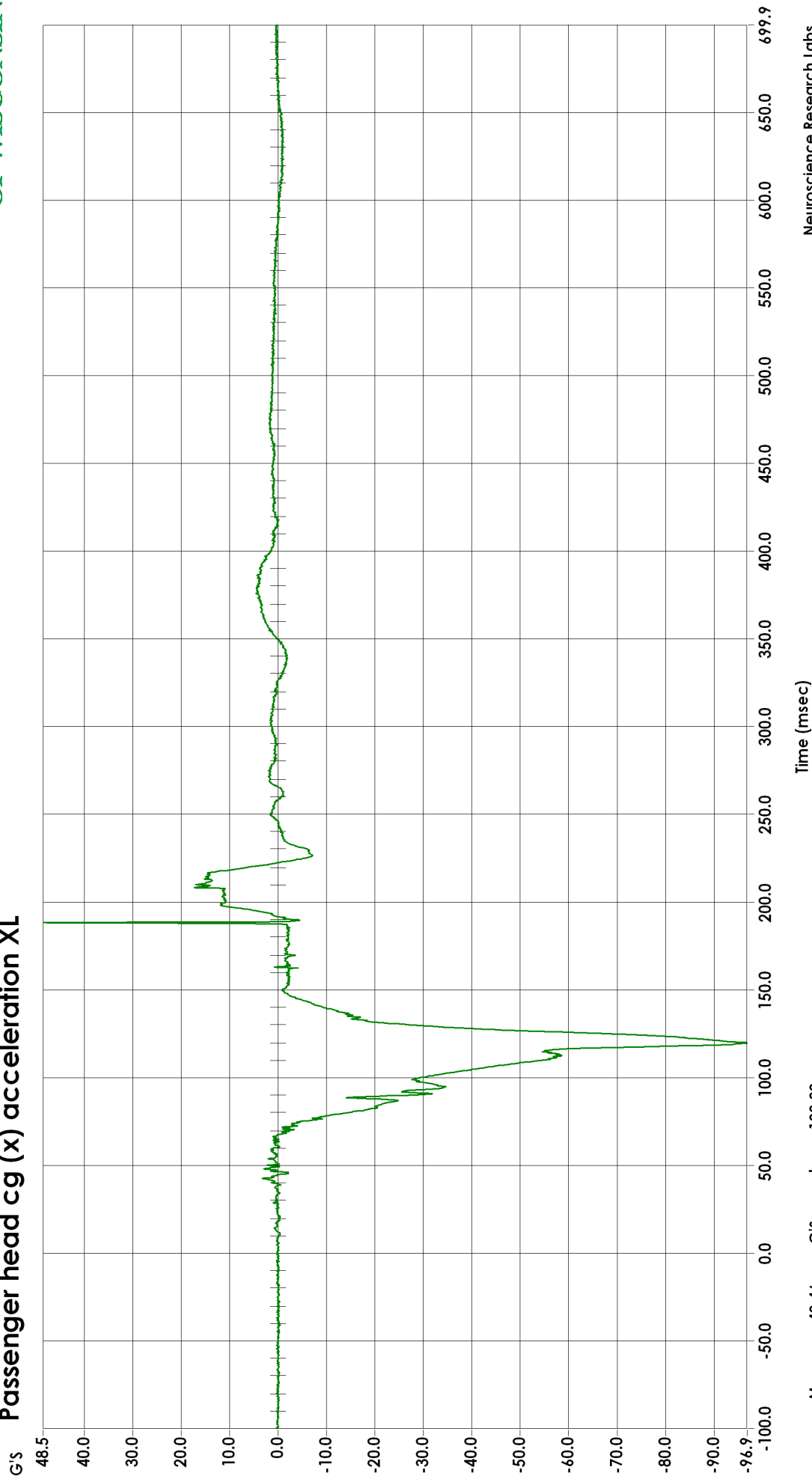
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12122



Passenger head cg (x) acceleration XL



Max 48.46 G's at 188.32 msec
Min -96.85 G's at 119.68 msec

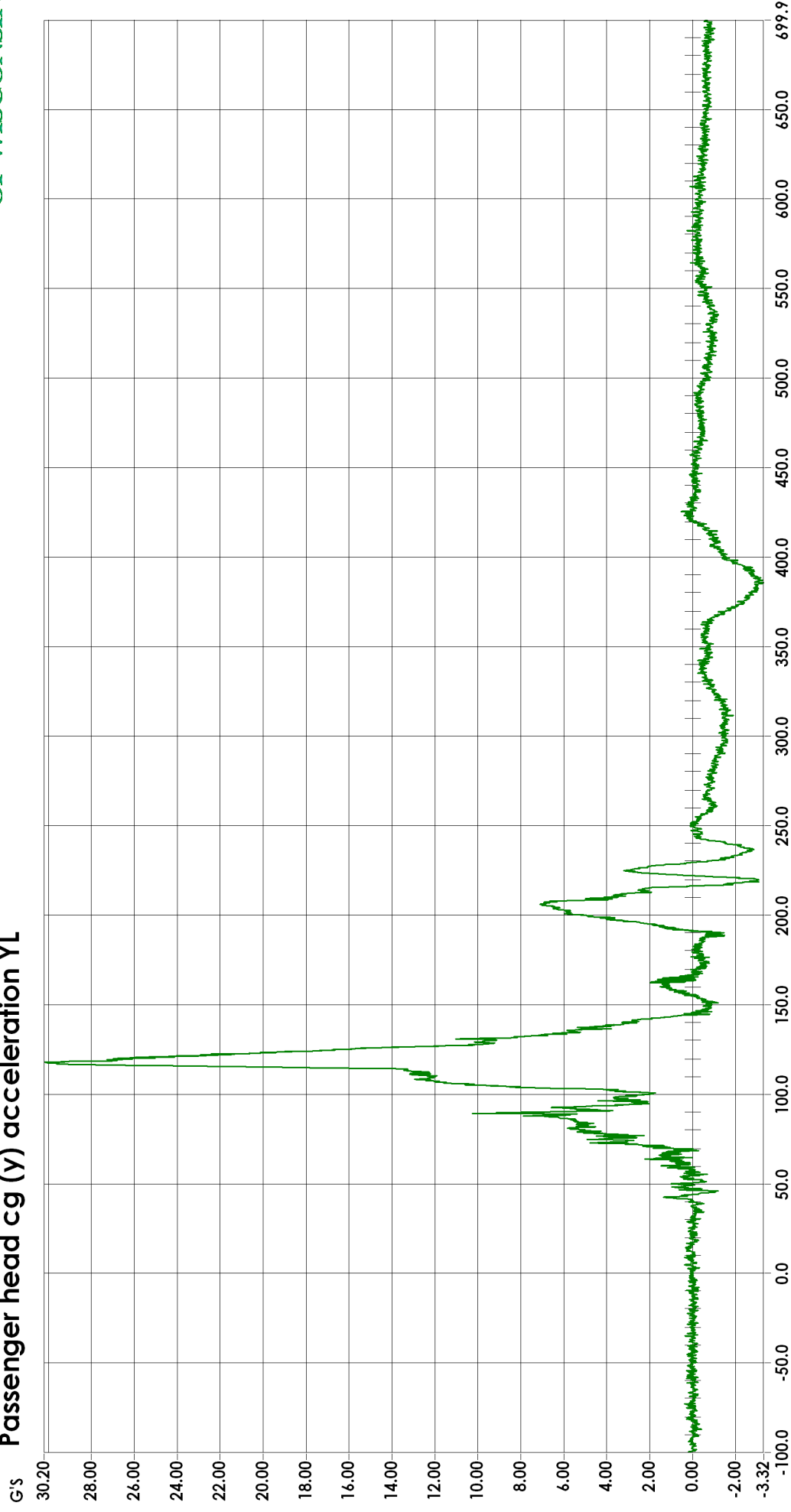
SOI004 Plot 120

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Test ID	SOI004	Filter	CFC1000	
Date	10-19-2010	Sampling Rate (Hz)	12500	
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	
		Prefrigger Points	1250	
		Sensor Location	HDCG	
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360	
		Serial Number	12090	

Passenger head cg (y) acceleration YL



Time (msec)

Max	30.20	G's	at	117.84	msec
Min	-3.32	G's	at	385.60	msec

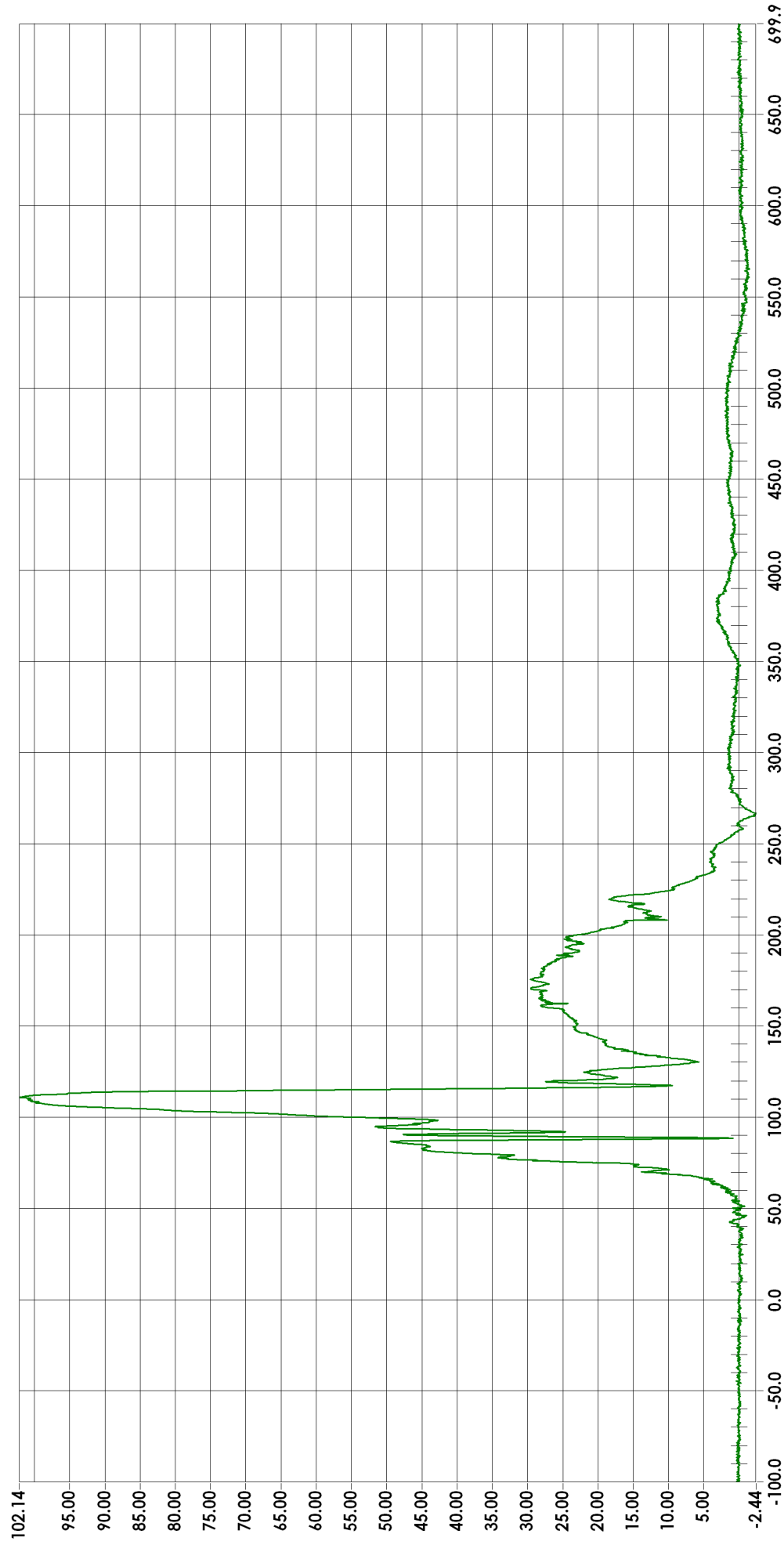
SOI004 Plot 121

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Test ID	SOI004	Filter	CFC1000	Sensor Location	HDCG
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264C-2KTZ-2-360
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	12091
		Pretrigger Points	1250		

Passenger head cg (z) acceleration ZL



Time (msec)

Max	102.14	G's	at	110.96	msec
Min	-2.44	G's	at	266.64	msec

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SOI004 Plot 122

Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC1000

Sampling Rate (Hz)

12500

Number of Points

10000

Prefrigger Points

1250

Sensor Location

HDCG

Sensor Info

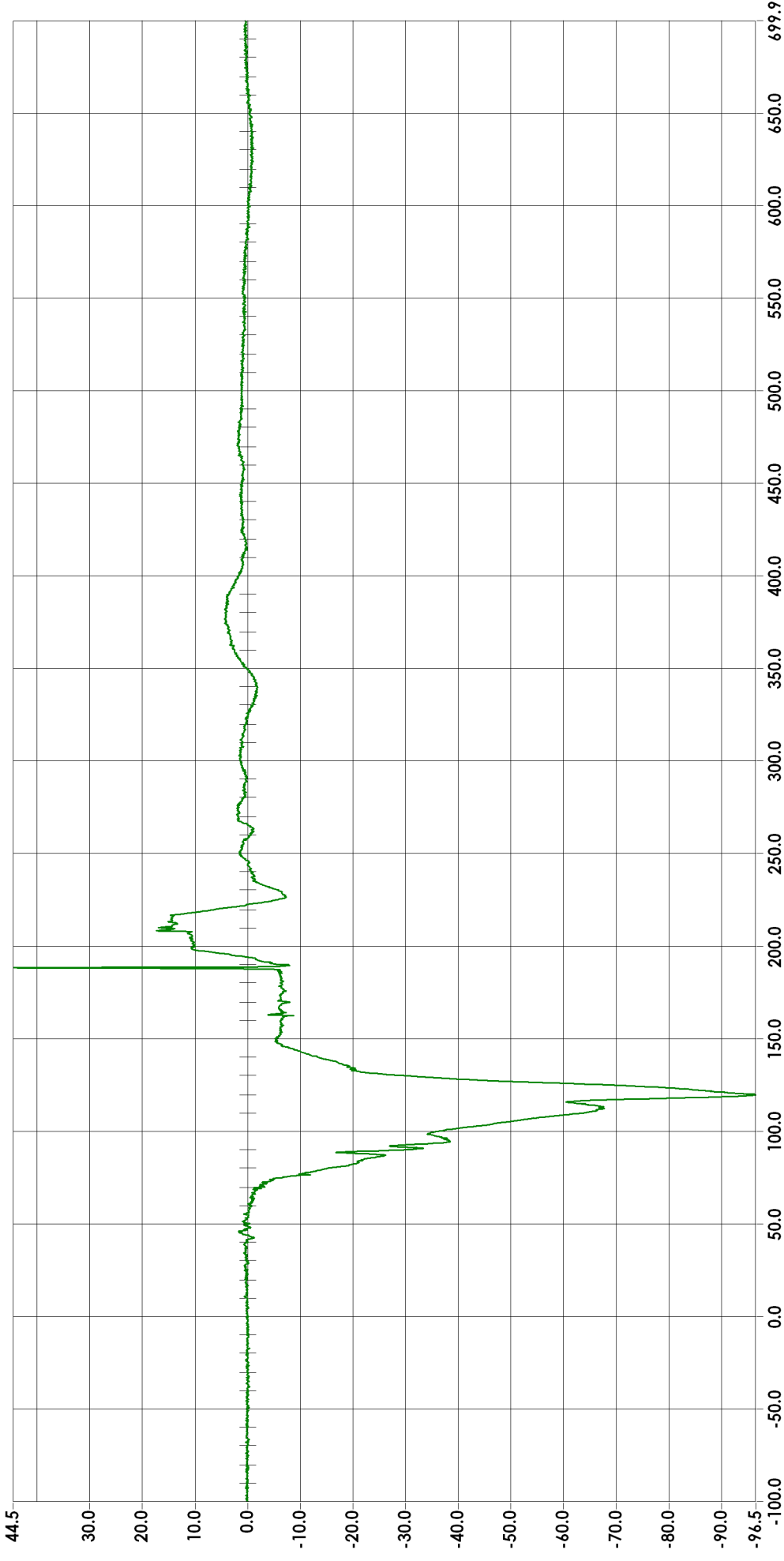
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12128

G's

Passenger redundant head cg (x) acceleration XL



Max

44.53

G's

at

188.32

msec

Min

-96.54

G's

at

119.60

msec

Time (msec)

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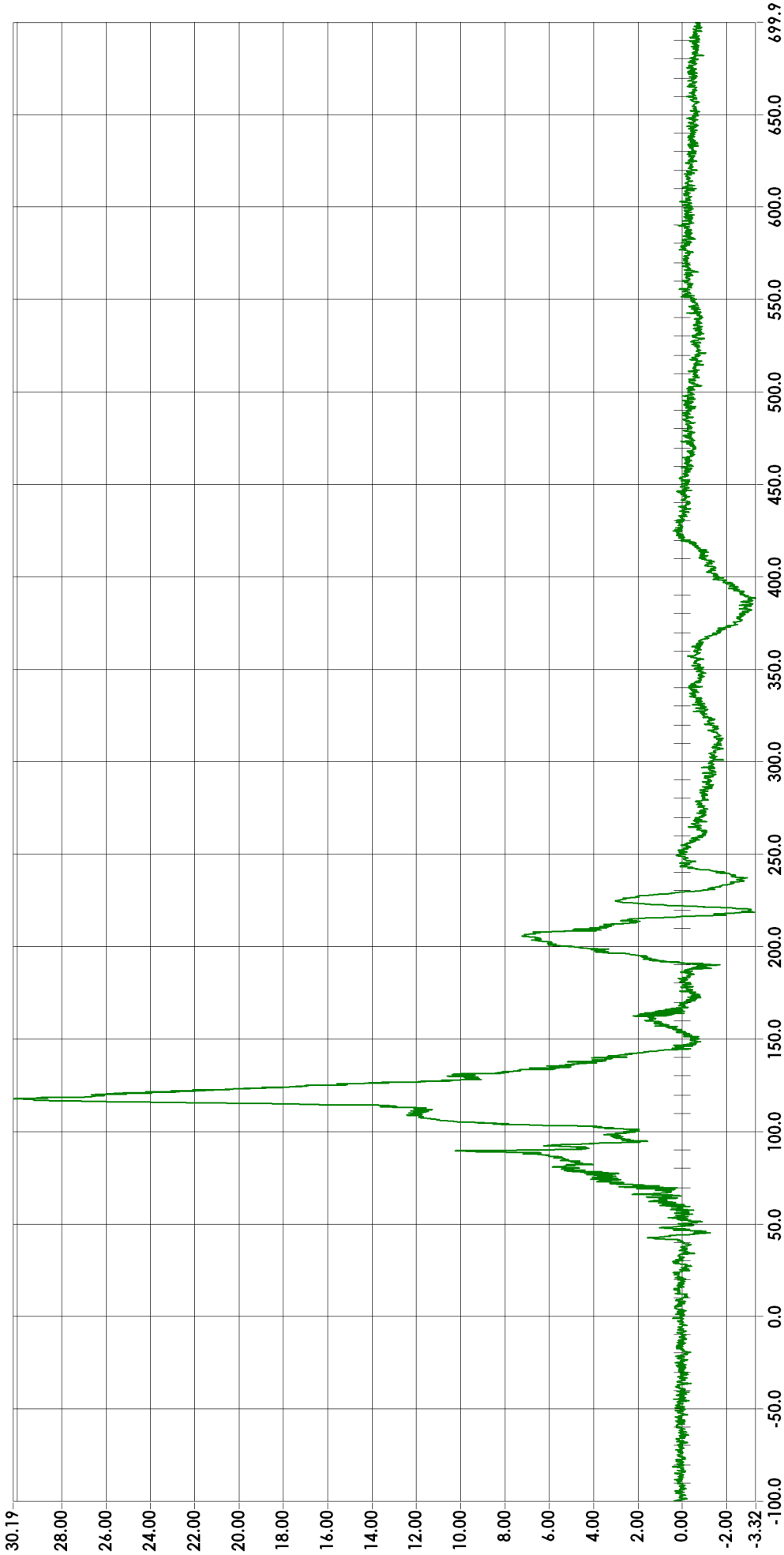
SOI004 Plot 123



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HDCG
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12092



Passenger redundant head cg (y) acceleration YL



Max	30.19	G's	at	117.76	msec
Min	-3.32	G's	at	388.56	msec

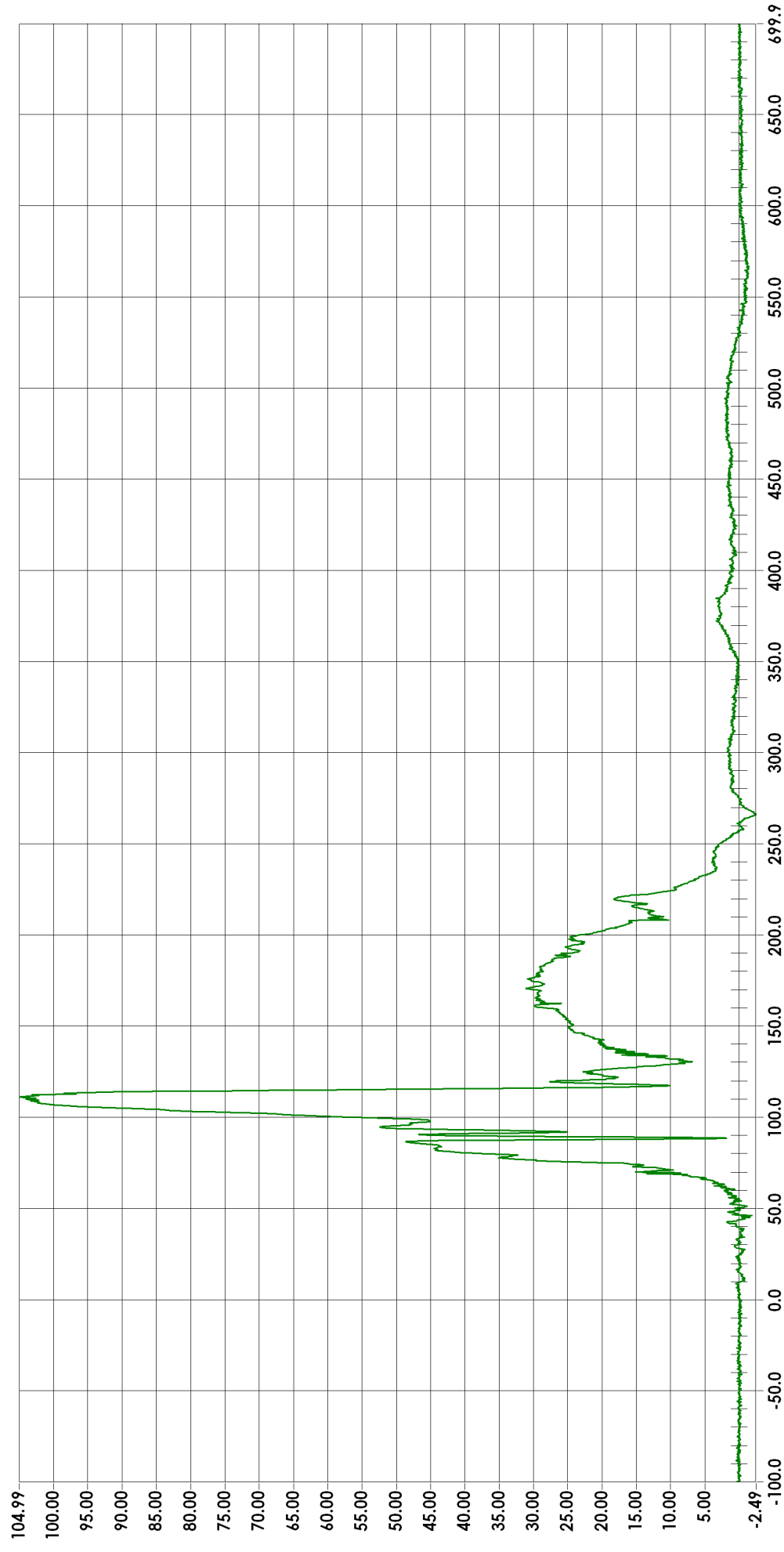
Time (msec)

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Test ID	SO1004	Filter	CFC1000	
Date	10-19-2010	Sampling Rate (Hz)	12500	
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Location
		Prefrigger Points	1250	Sensor Info
				Serial Number
				HDCG
				ENDEVCO 7264D-2KTZ-2-360
				12101

Passenger redundant head cg (z) acceleration ZL



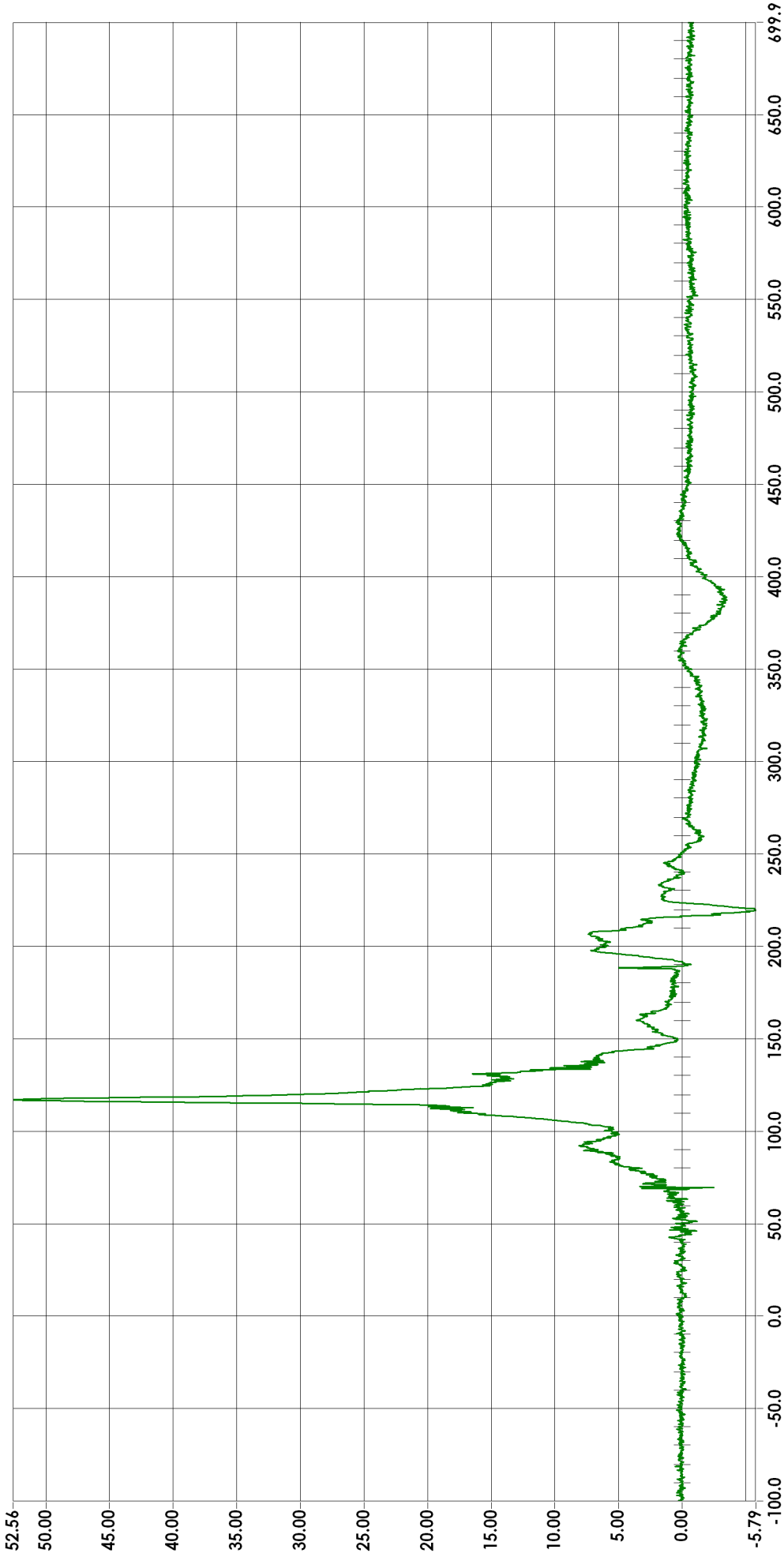
Max	104.99	G's	at	111.04	msec
Min	-2.49	G's	at	266.24	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9X
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12129



Passenger internal nap (x) arm (y) face YL



Max	52.56	G's	at	116.96	msec
Min	-5.79	G's	at	219.68	msec

SOI004 Plot 126

Time (msec)

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC1000

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

HD9X

Sensor Info

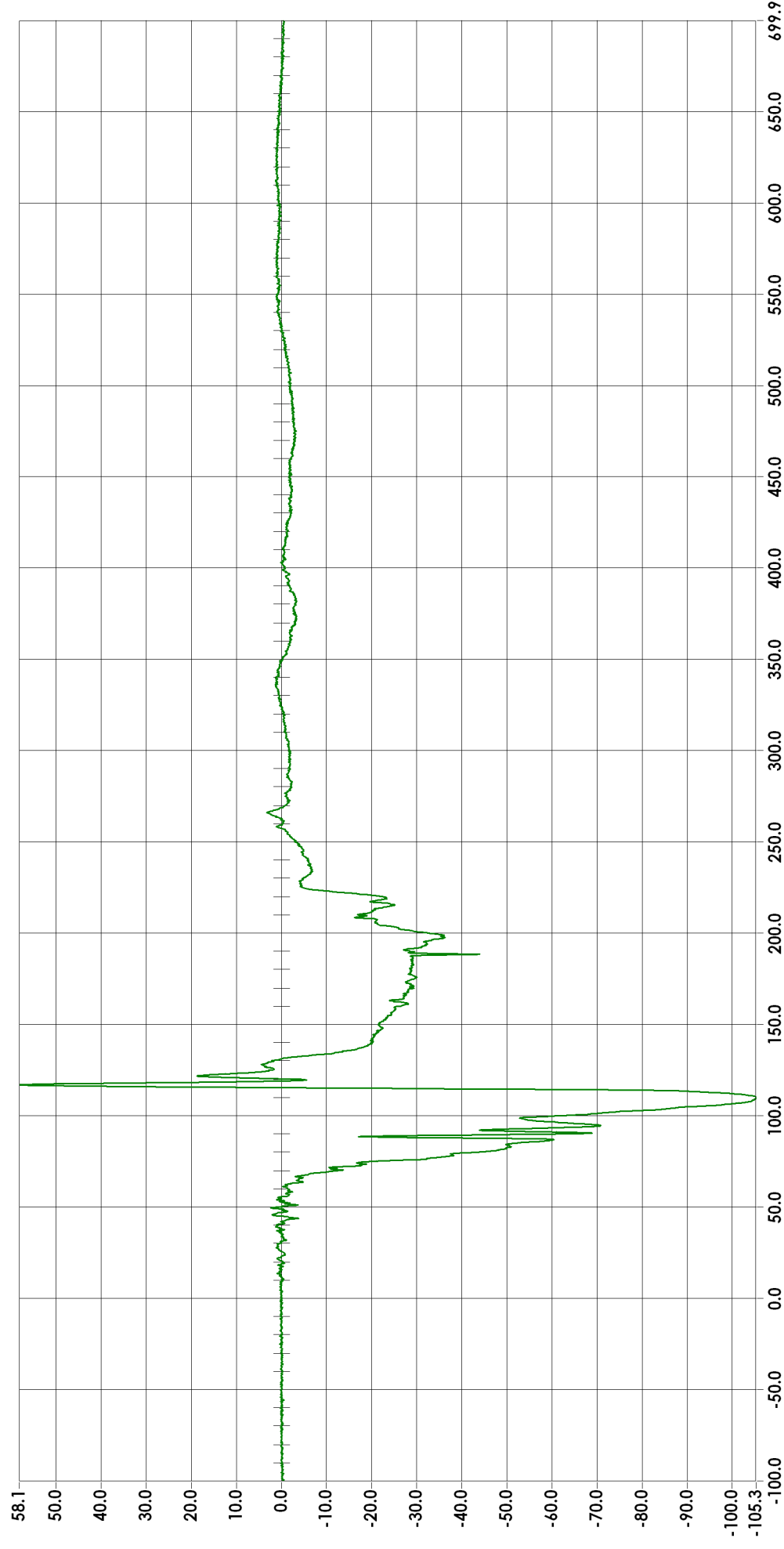
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12138



Passenger internal nap (x) arm (z) face ZL



Max 58.14 G's at 116.88 msec
Min -105.29 G's at 110.16 msec

Time (msec)

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC1000

Sensor Location

HD9Y

Sampling Rate (Hz)

12500

Sensor Info

ENDEVCO 7264C-2KTZ-2-360

Number of Points

10000

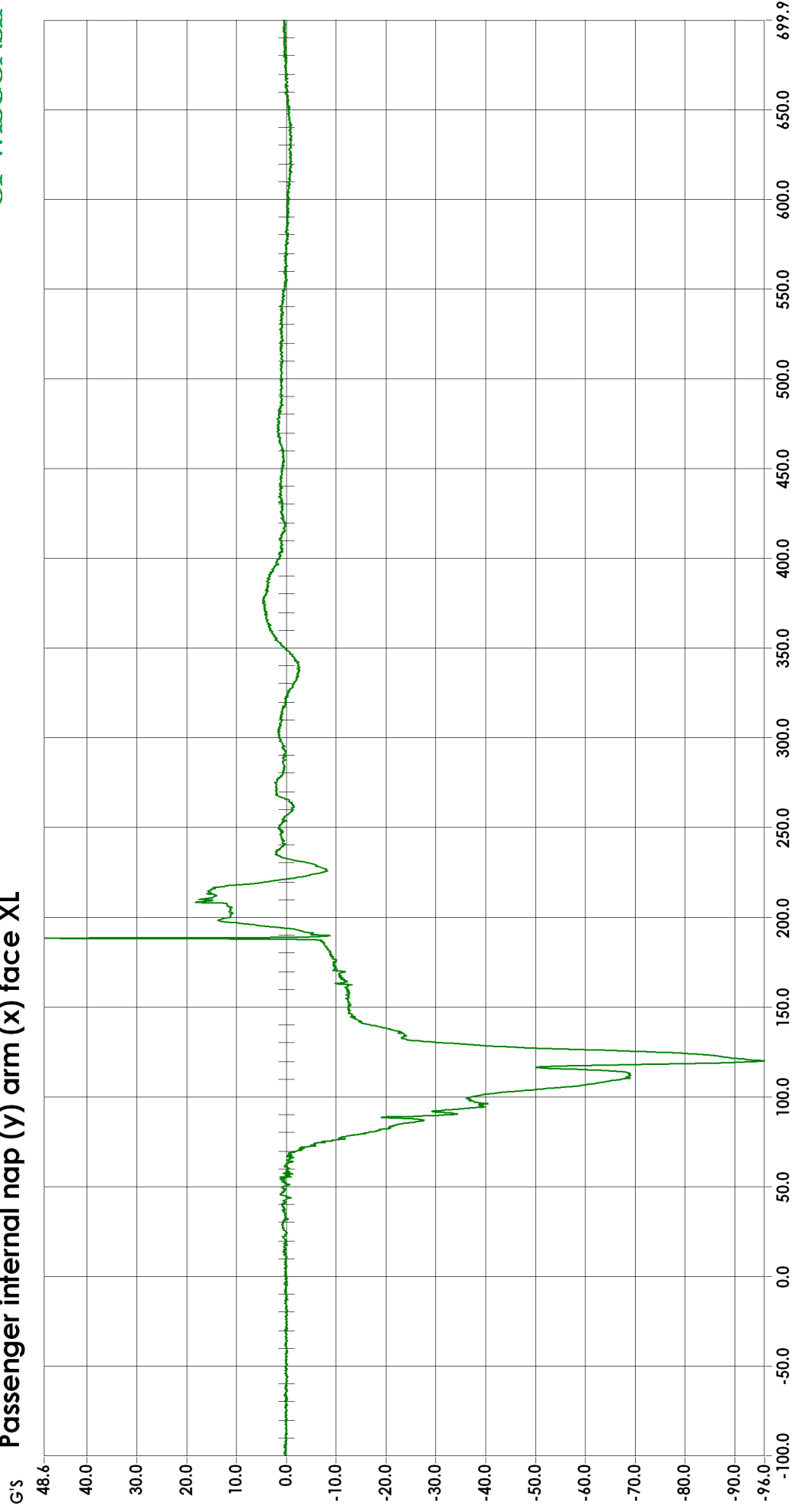
Serial Number

P59121

Pretigger Points

1250

Passenger internal nap (y) arm (x) face XL



Max	48.61	G's	at	188.40	msec
Min	-96.02	G's	at	120.08	msec

SOI004 Plot 128

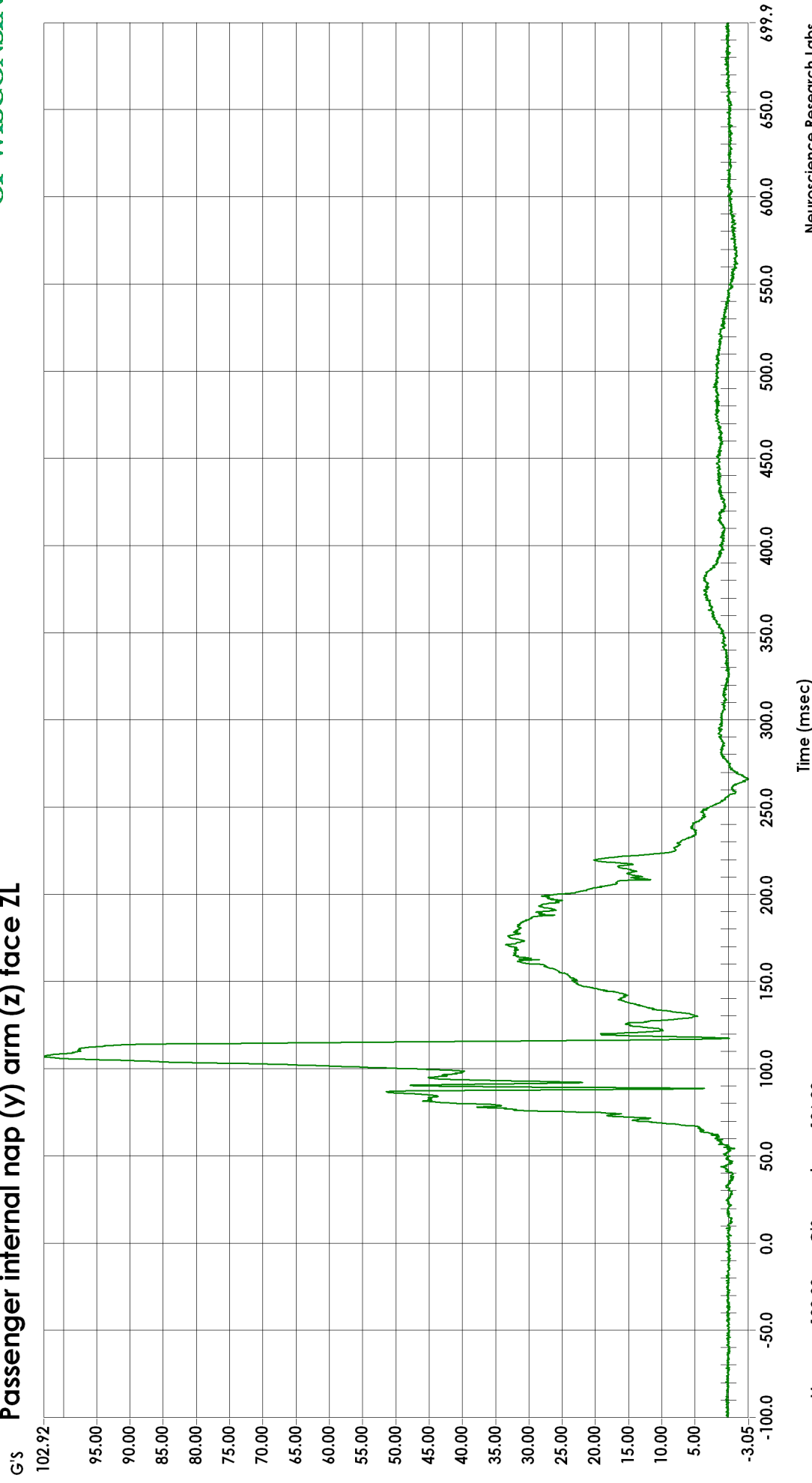
Time (msec)

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9Y
		Sensor Info	ENDEVCO 7264C-2KTZ-2-360
		Serial Number	P59123

Passenger internal nap (y) arm (z) face ZL



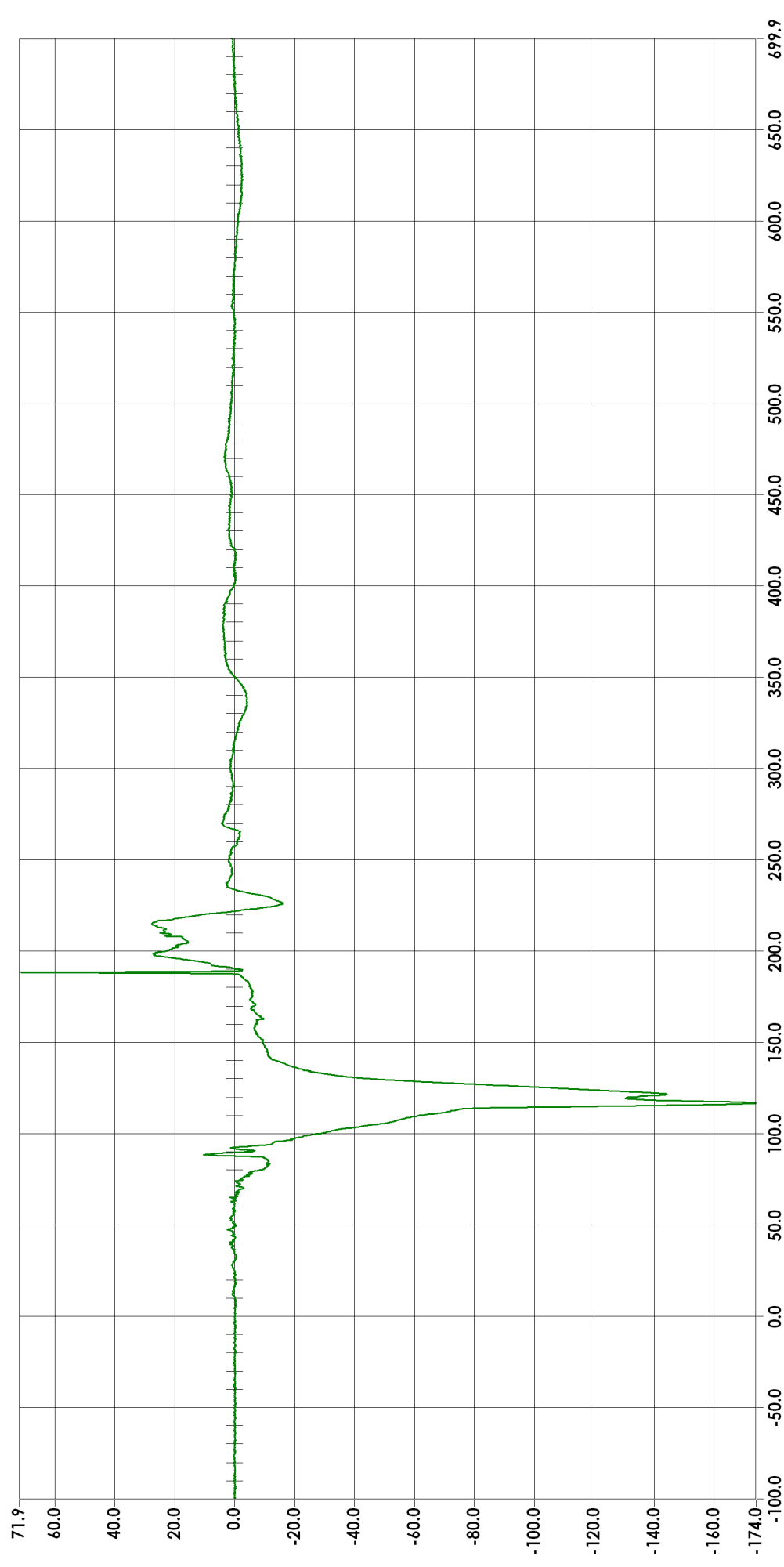
Max	102.92	G's	at	106.80	msec
Min	-3.05	G's	at	266.00	msec

SOI004 Plot 129

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	HD9Z
		Sensor Info	ENDEVCO 7264C-2KTZ-2-360
		Serial Number	P59118



G's Passenger internal nap (z) arm (x) face XL



Max	71.88	G's	at	188.40	msec
Min	-174.02	G's	at	116.80	msec

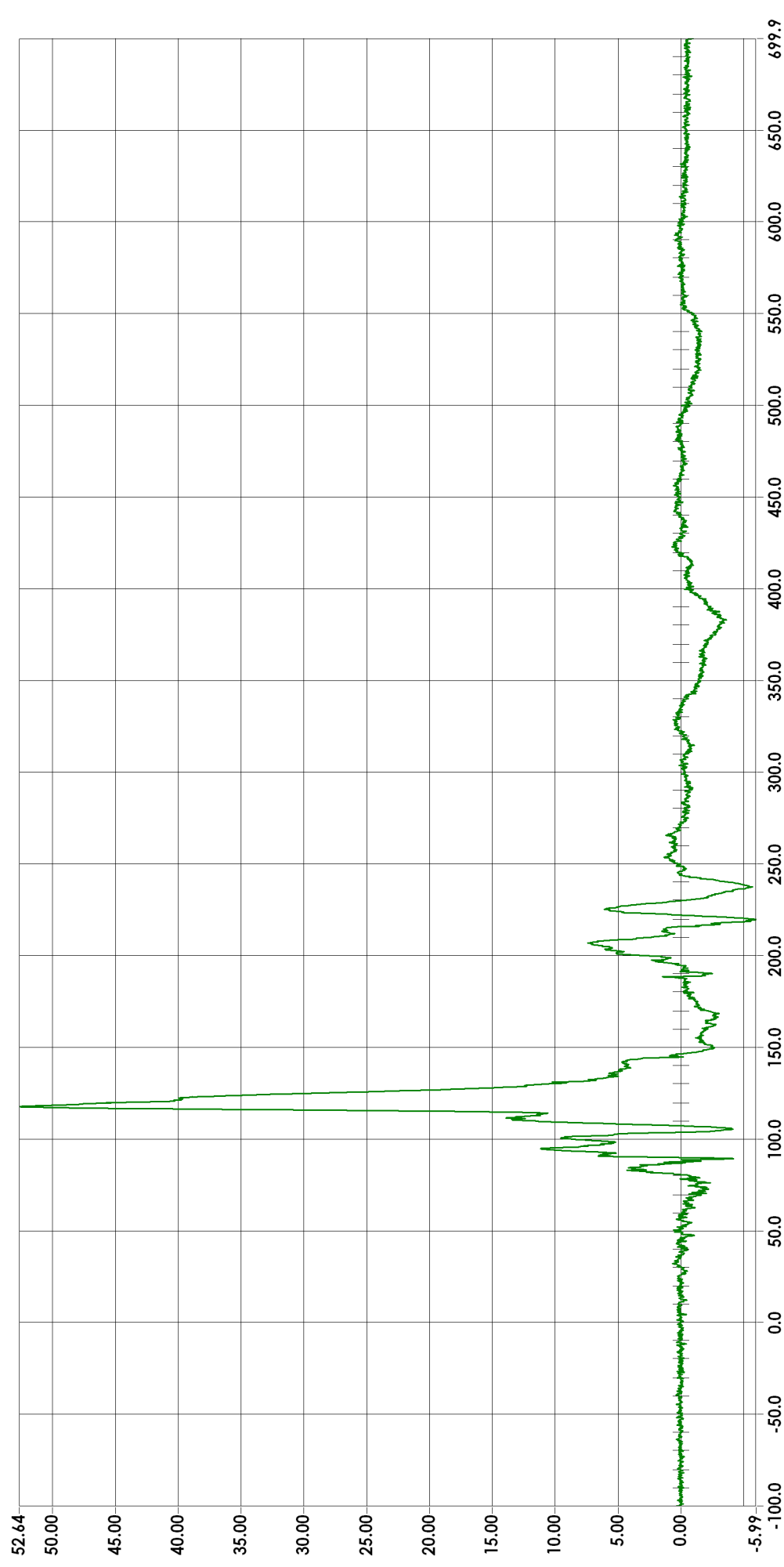
SOI004 Plot 130

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Test ID	SO1004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	HD9Z
		Sensor Info	ENDEVCO 7264C-2KTZ-2-360
		Serial Number	P59124



Passenger internal nap (z) arm (y) face YL



Time (msec)

Max	52.64	G's	at	117.68	msec
Min	-5.99	G's	at	219.68	msec

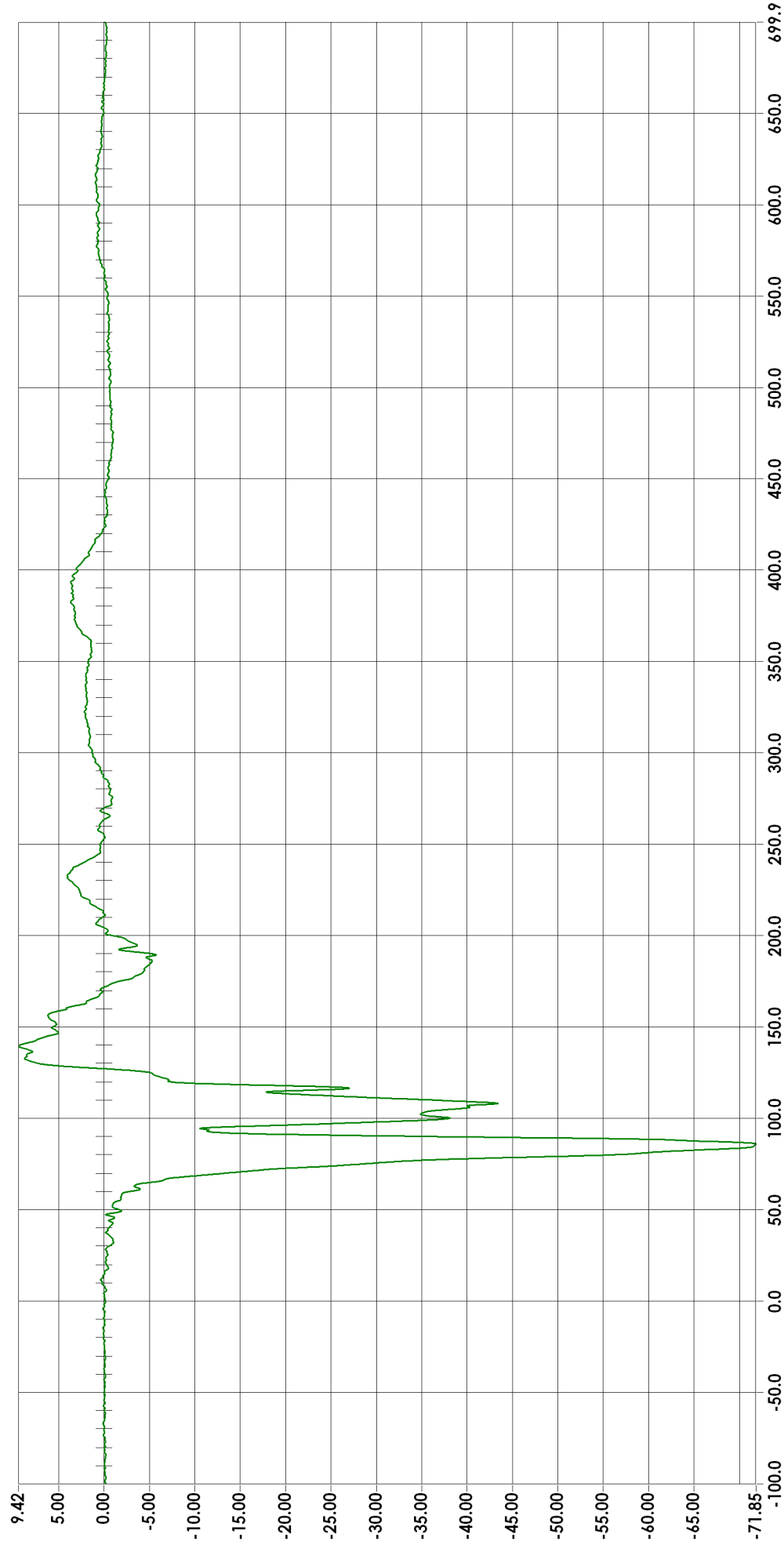
SO1004 Plot 131

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Test ID	SOI004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	CHST
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12108

Passenger t4 (x) acceleration XL



Time (msec)

Max	9.42	G's	at	139.52	msec
Min	-71.85	G's	at	85.92	msec

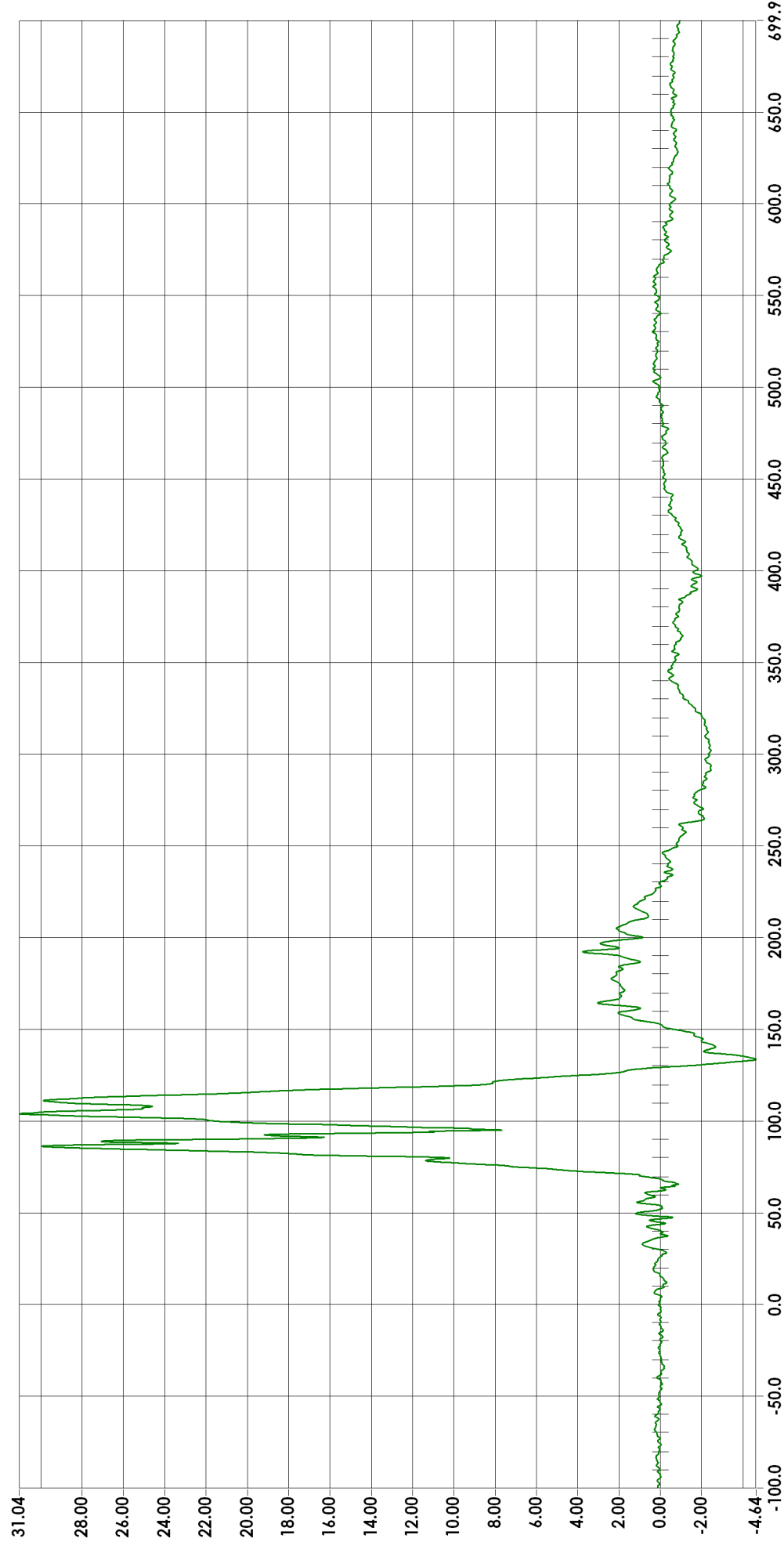
SOI004 Plot 132

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Test ID	SOI004	Filter	CFC180	Sensor Location	CHST
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	ENDEVCO 7264D-2KTZ-2-360
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	12106
		Prefrigger Points	1250		

Passenger t4 (y) acceleration YL



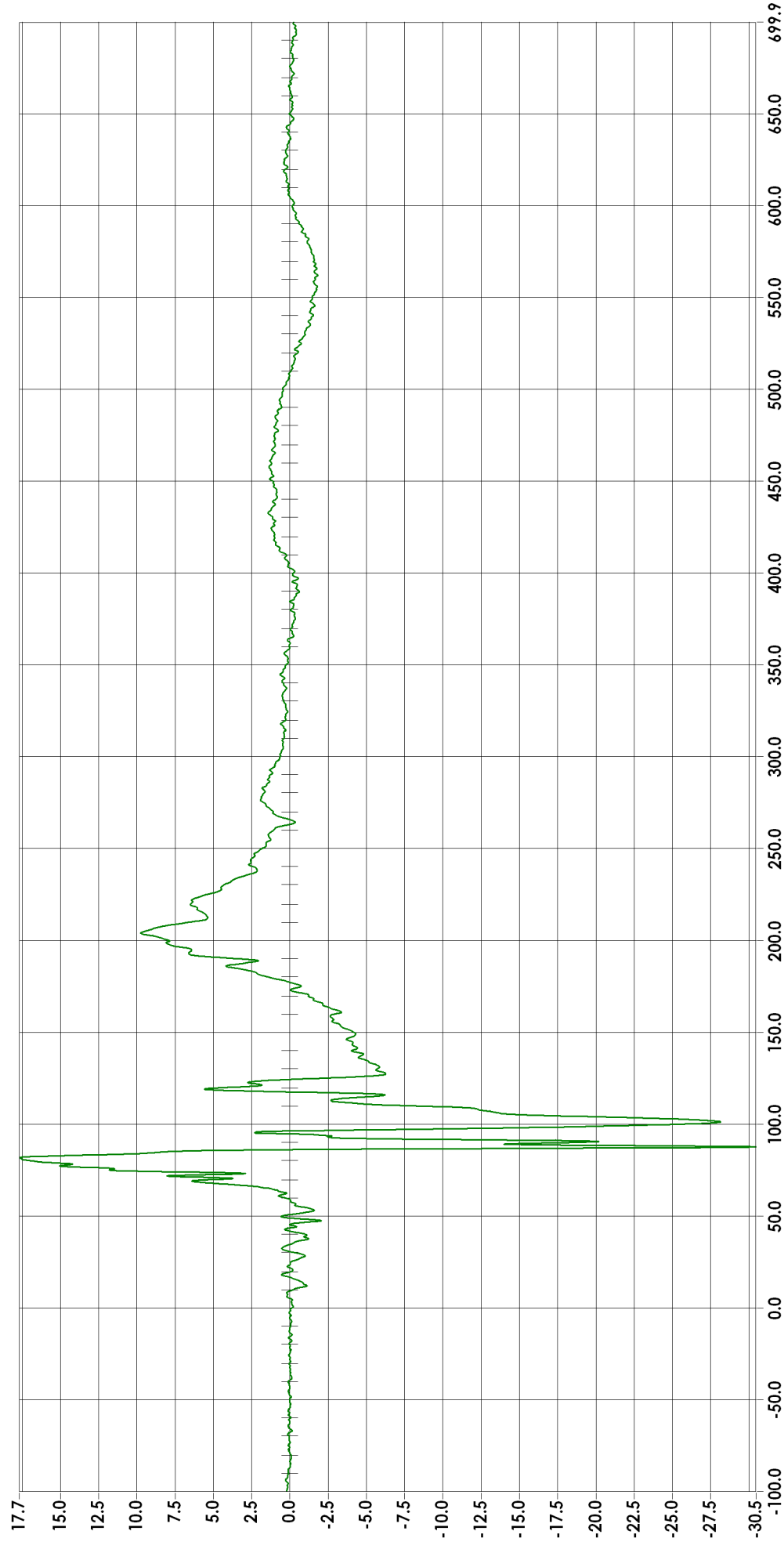
Max	31.04	G's	at	104.00	msec
Min	-4.64	G's	at	133.60	msec

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Test ID	SOI004	Filter	CFC180	
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Location
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Sensor Info
		Pretrigger Points	1250	Serial Number

Passenger t4 (z) acceleration ZL



Time (msec)

Max	17.69	G's	at	81.76	msec
Min	-30.48	G's	at	87.60	msec

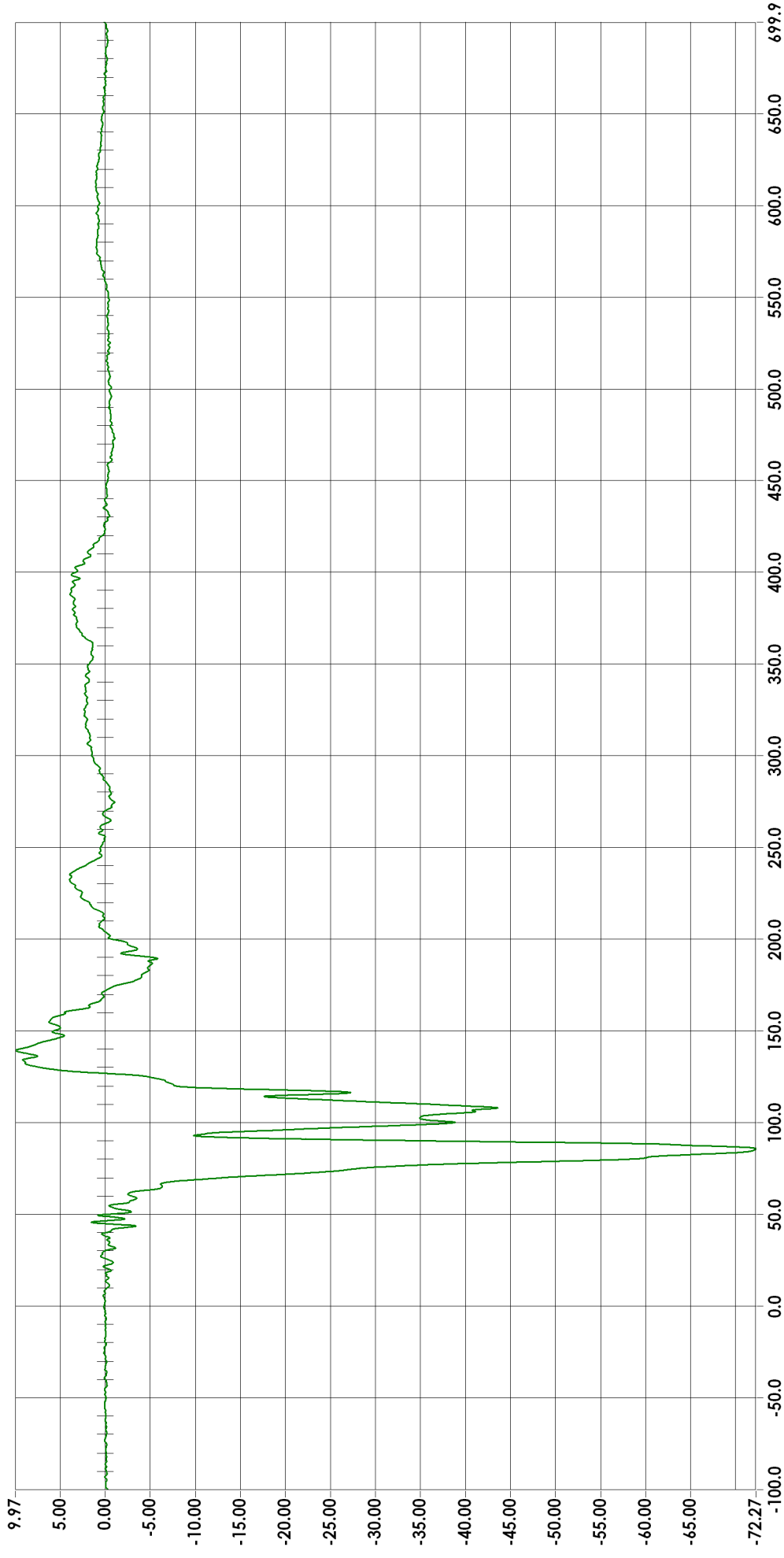
SOI004 Plot 134

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Test ID	SOI004	Filter	CFC180
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	CHST
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12095

Passenger redundant t4 (x) acceleration XL



Time (msec)

Max	9.97	G's	at	139.44	msec
Min	-72.27	G's	at	85.76	msec

SOI004 Plot 135

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC180

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

CHST

Sensor Info

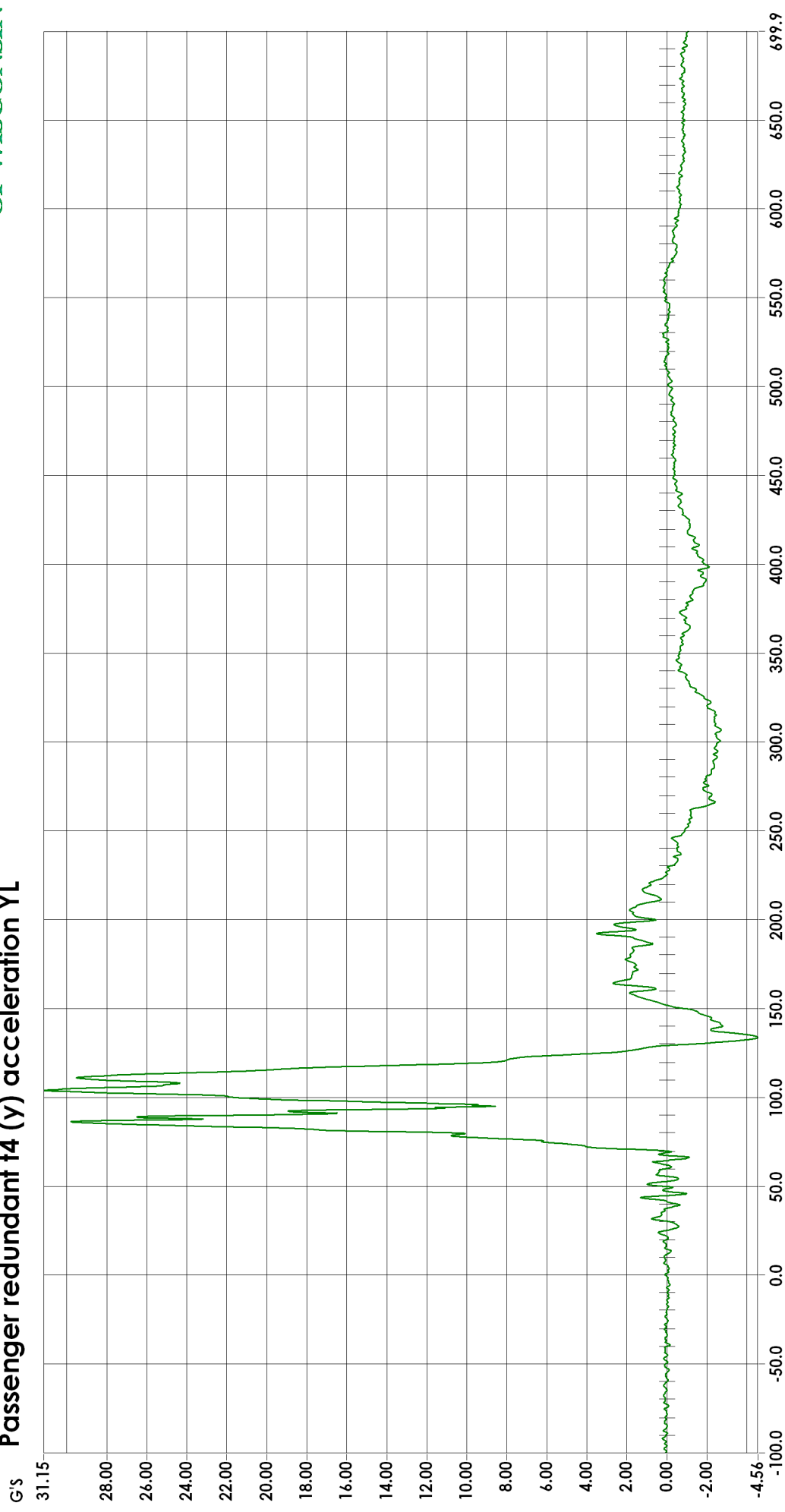
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12114



Passenger redundant t4 (y) acceleration YL



Max 31.15 G's at 103.92 msec
Min -4.56 G's at 133.68 msec

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC180

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

CHST

Sensor Info

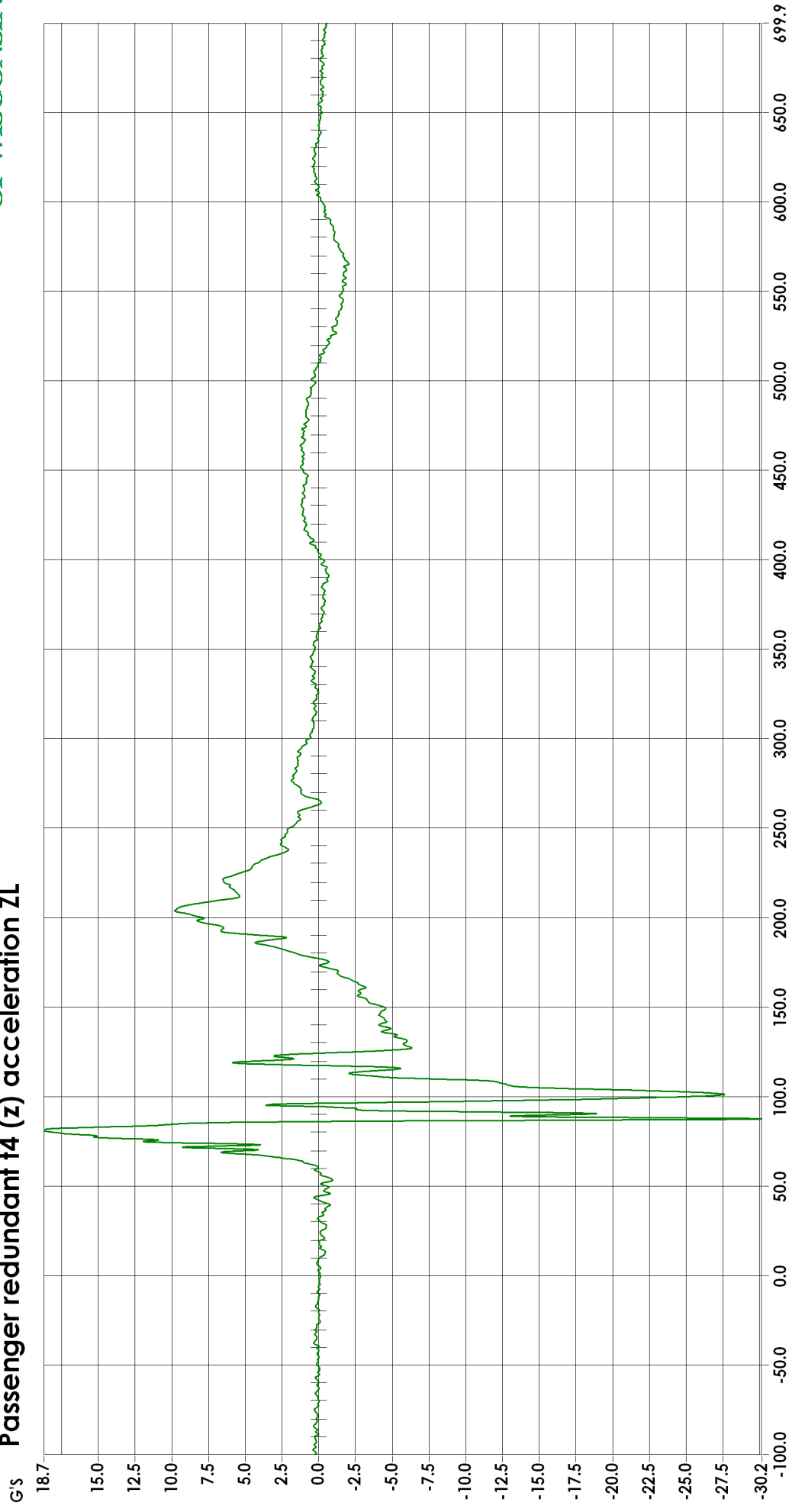
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12113



Passenger redundant t4 (z) acceleration ZL



Max

18.70

G's

at

80.96

msec

Min

-30.16

G's

at

87.52

msec

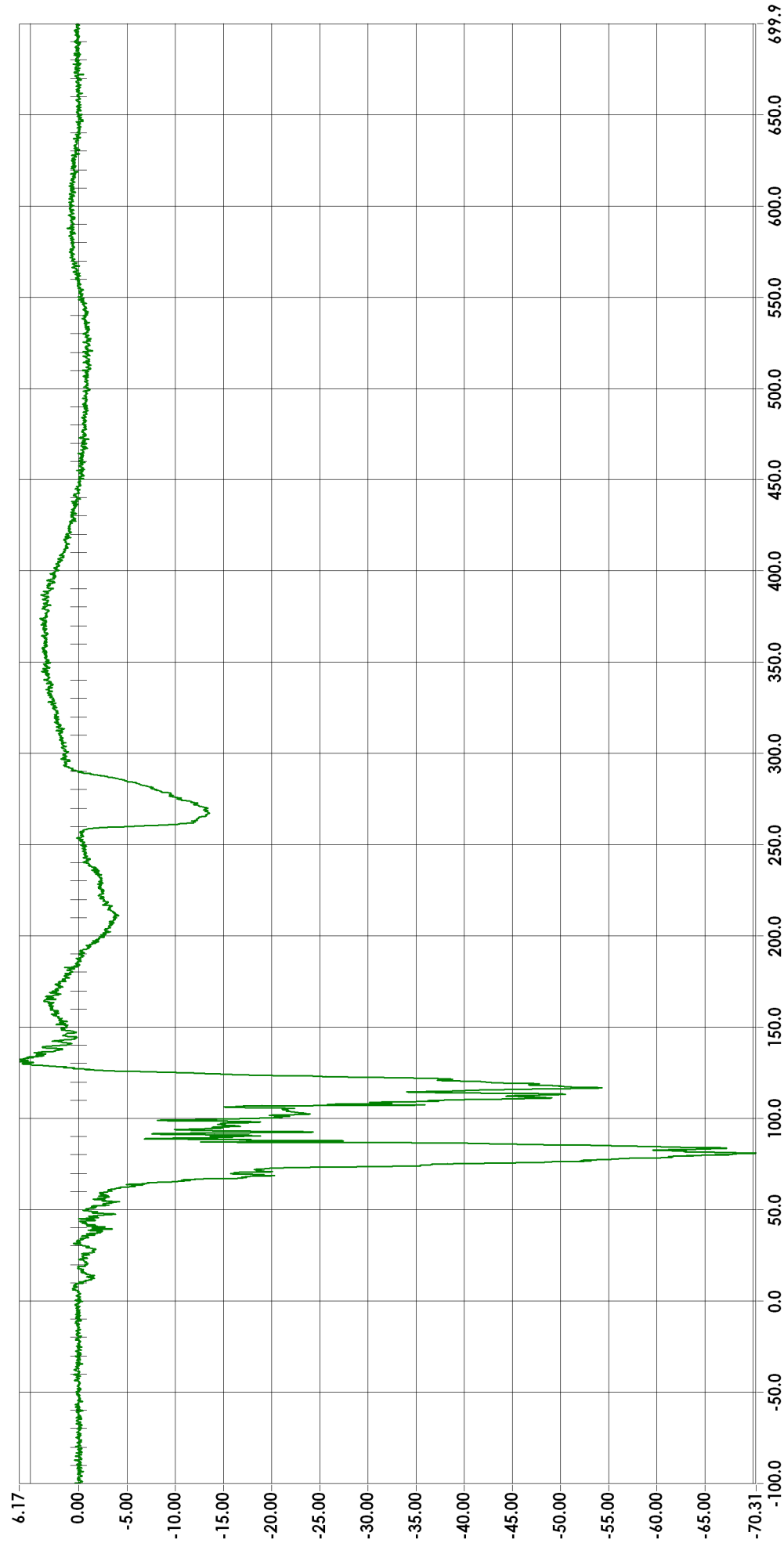
Time (msec)

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	PVCN
		Sensor Info	MSI 64-2000-10-360-XY
		Serial Number	A011338

Passenger pelvis (x) acceleration XL



Time (msec)

Max	6.17	G's	at	132.24	msec
Min	-70.31	G's	at	80.96	msec

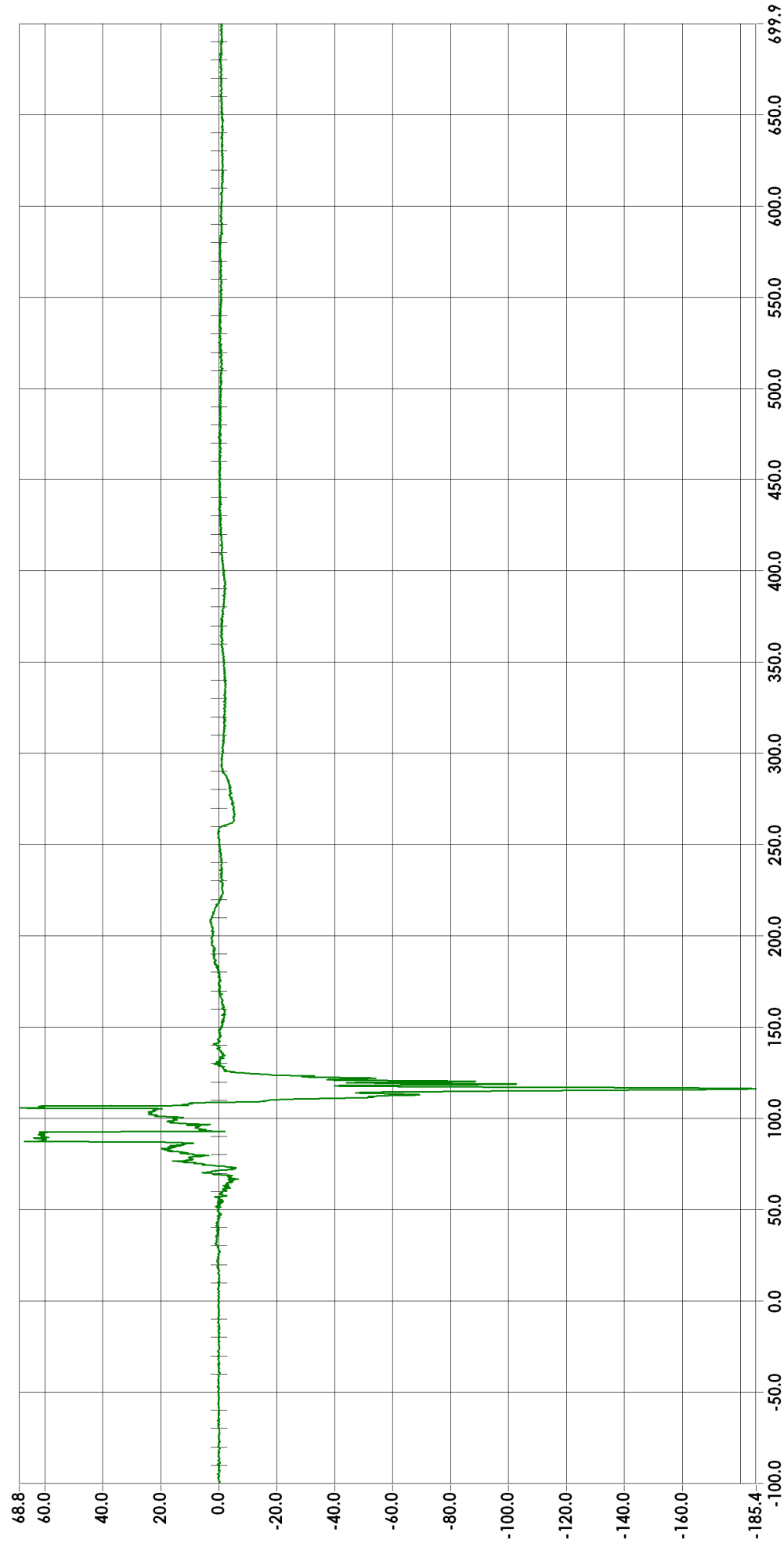
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SOI004 Plot 138



Test ID	SOI004	Filter	CFC1000	Sensor Location	PVCN
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	MSI 64-2000-10-360-XY
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	A011340
		Pretrigger Points	1250		

Passenger pelvis (y) acceleration YL



Time (msec)

Max	68.80	G's	at	105.76	msec
Min	-185.44	G's	at	116.24	msec

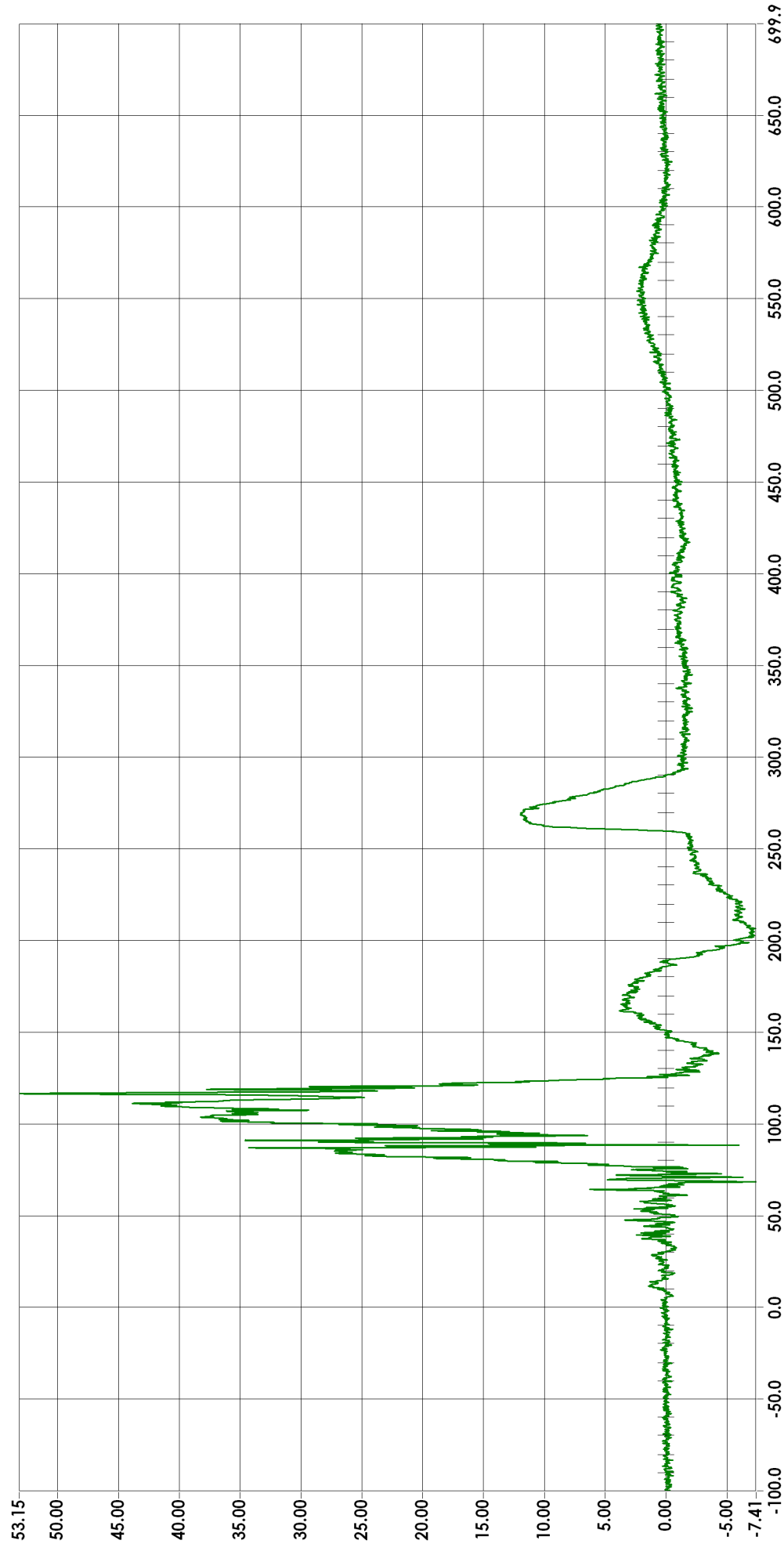
SOI004 Plot 139

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Test ID	SOI004	Filter	CFC1000	Sensor Location	PVCN
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	MSI 64-2000-10-360-XY
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	A011342
		Pretrigger Points	1250		

Passenger pelvis (z) acceleration ZL



Time (msec)

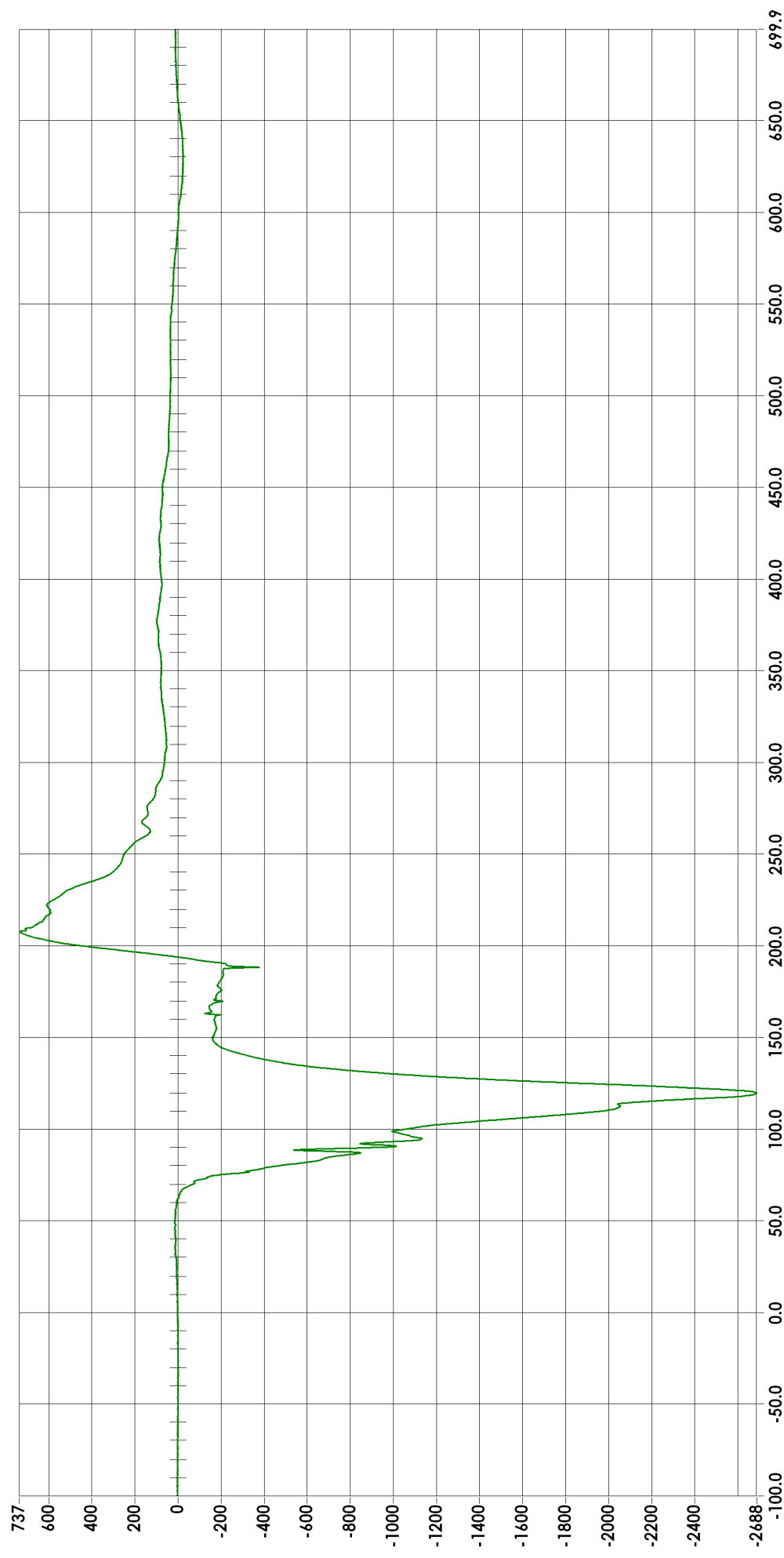
Max	53.15	G's	at	116.56	msec
Min	-7.41	G's	at	68.48	msec

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Test ID	SO1004	Filter	CFC1000	Sensor Location	NEKU
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 1716A
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1716A_0445_FX

Passenger upper neck (x) force XL



Max 736.92 NWT at 207.84 msec
Min -2688.43 NWT at 119.76 msec

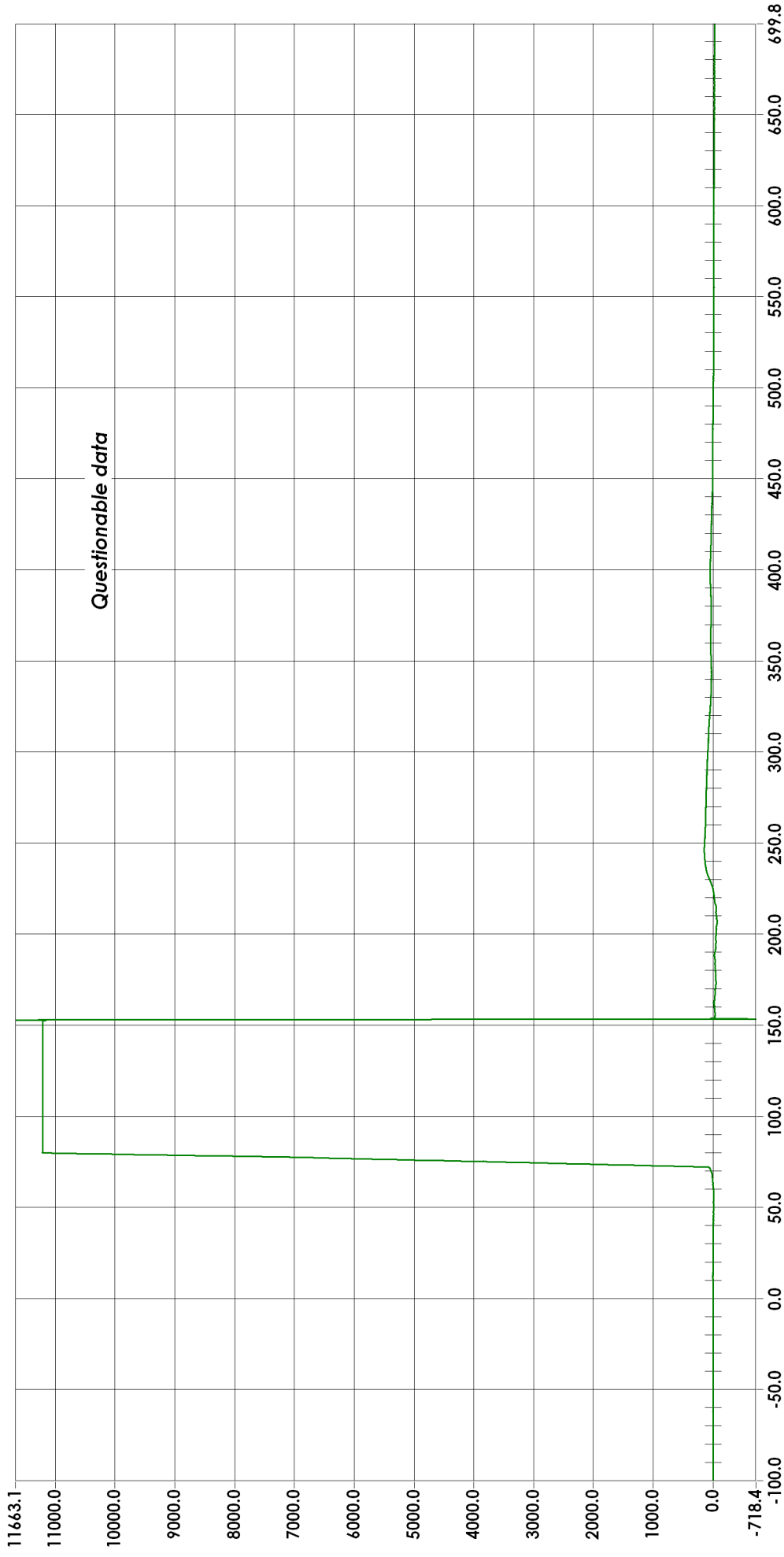
SO1004 Plot 141

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 1716A
		Serial Number	1716A_0445_FY

NWT Passenger upper neck (y) force YL



Max	11663.10	NWT	at	152.80	msec
Min	-718.35	NWT	at	153.44	msec

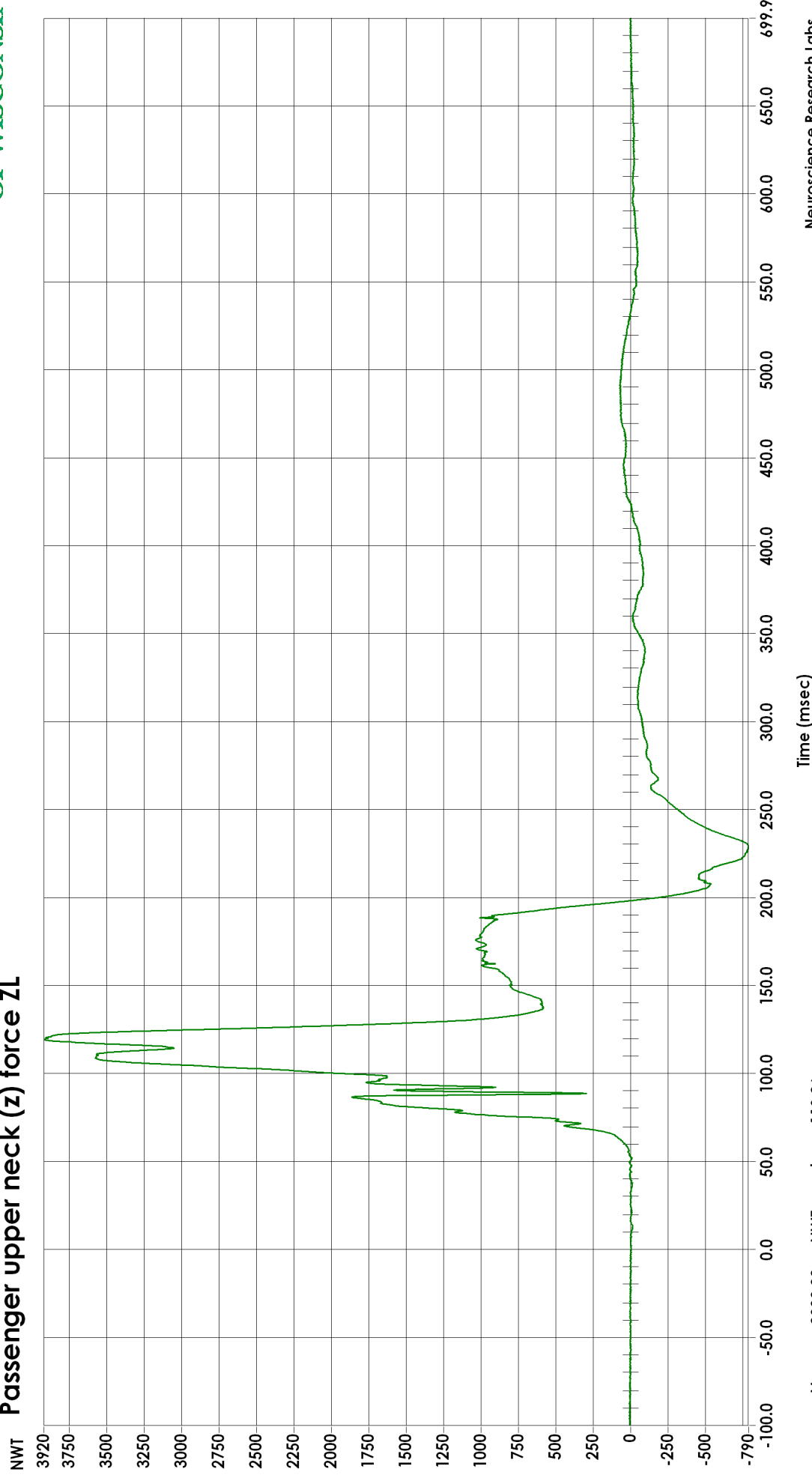
SOI004 Plot 142

Time (msec)

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Milwaukee, WI 53295

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 1716A
		Serial Number	1716A_0445_FZ

Passenger upper neck (z) force ZL

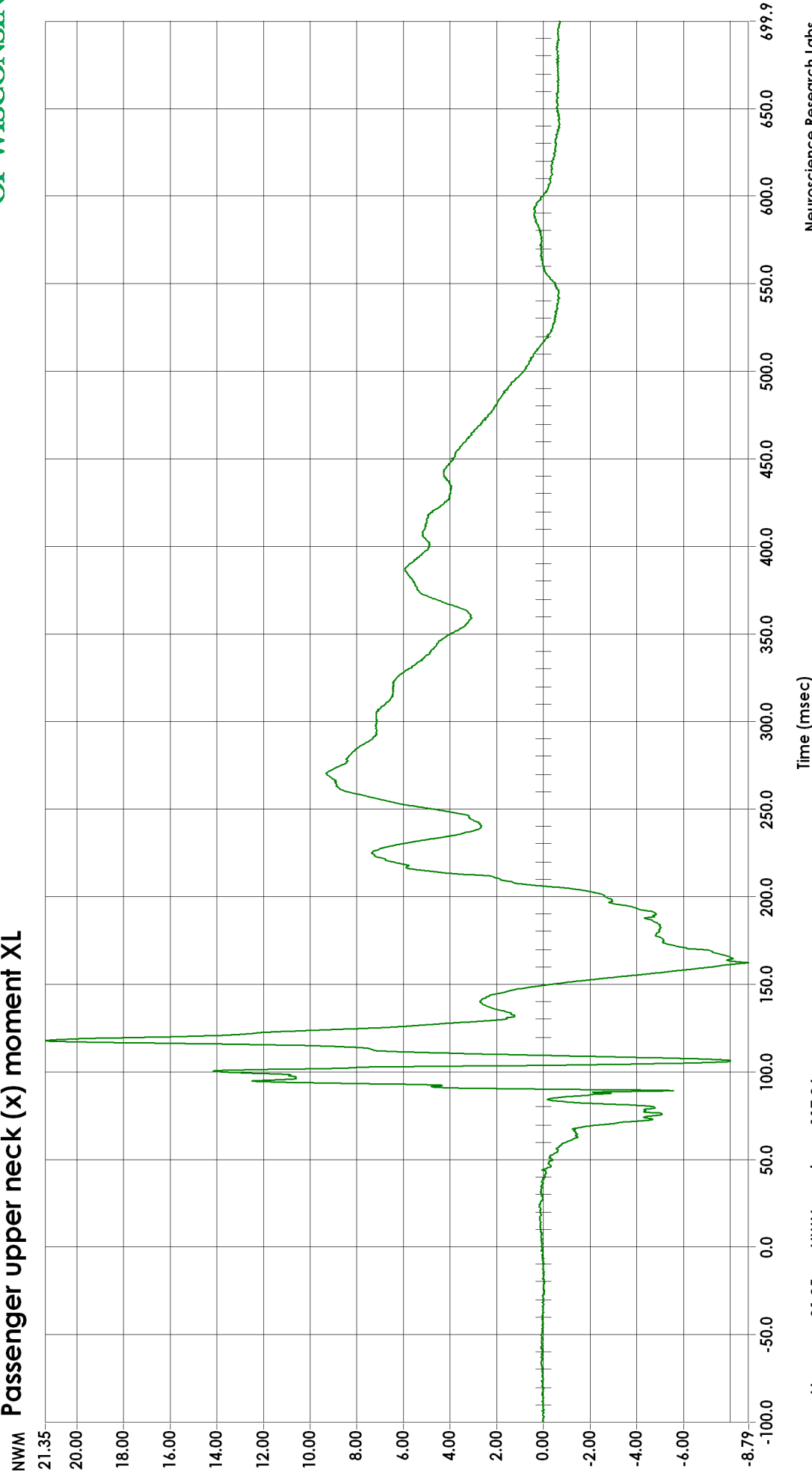


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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 1716A
		Serial Number	1716A_0445_MX

Passenger upper neck (x) moment XL



Max	21.35	NWM	at	117.84	msec
Min	-8.79	NWM	at	162.32	msec

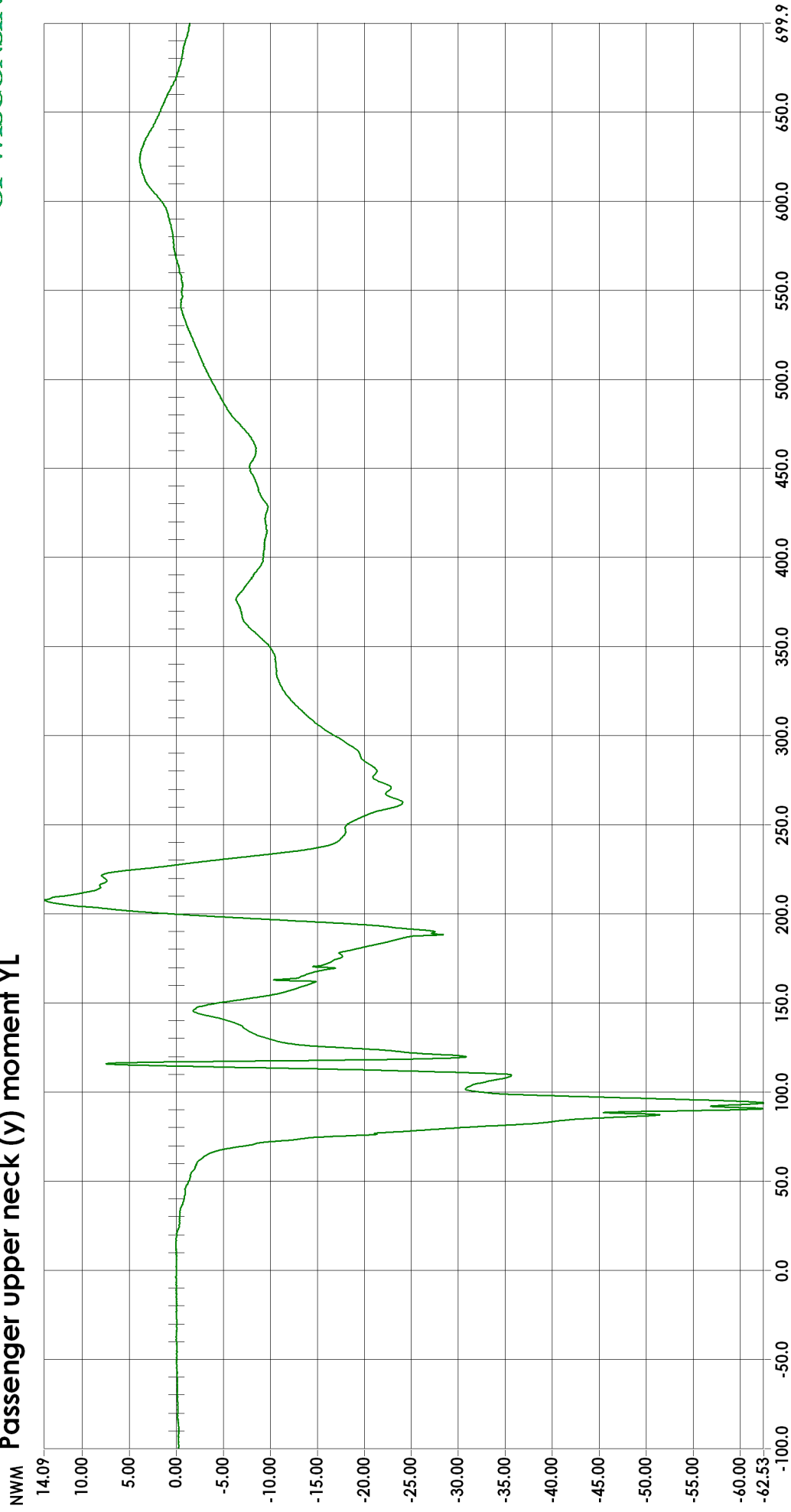
SOI004 Plot 144

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Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 1716A
		Serial Number	1716A_0445_MY

Passenger upper neck (y) moment YL



Time (msec)

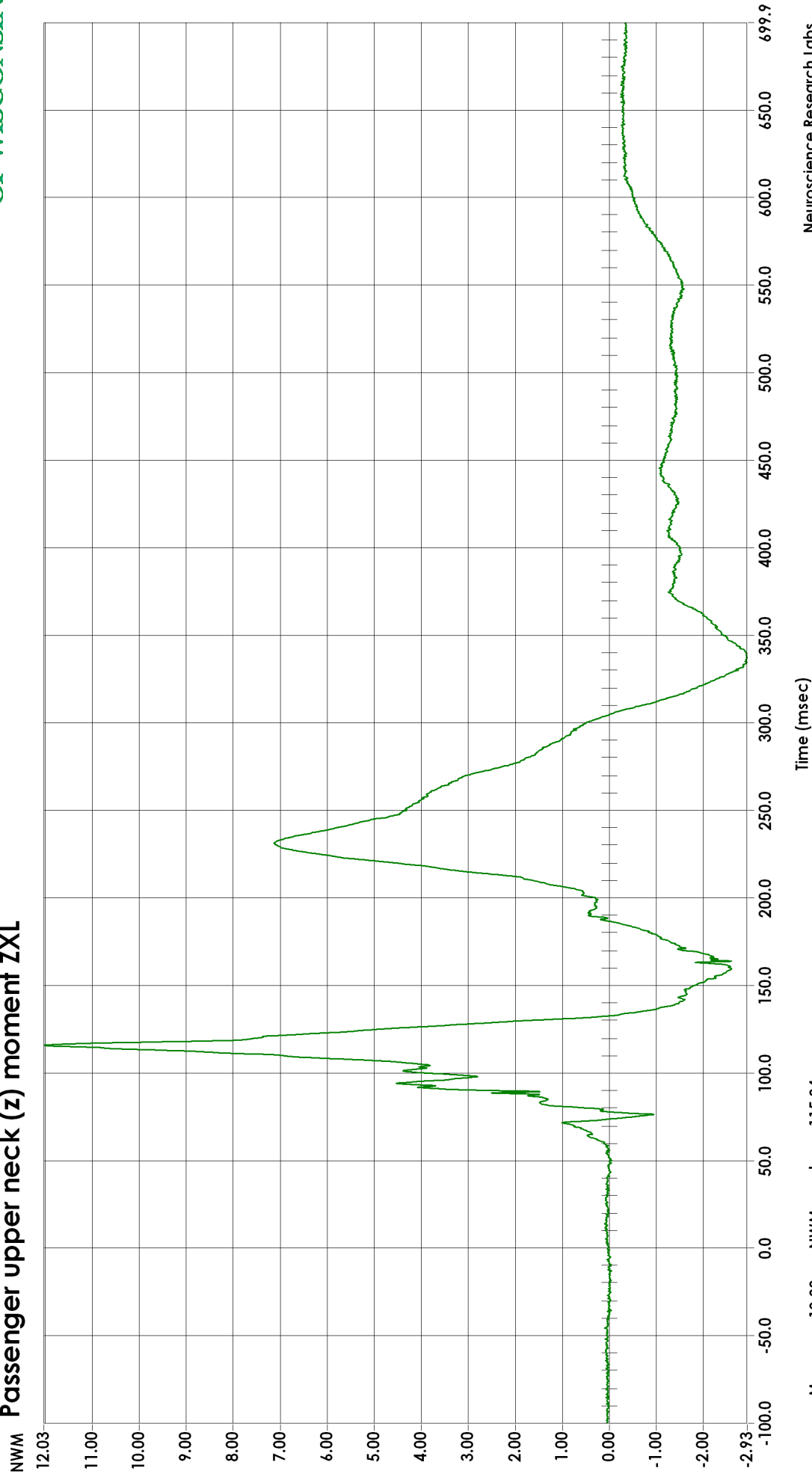
Max	14.09	NWM	at	207.76	msec
Min	-62.53	NWM	at	94.00	msec

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SOI004 Plot 145

Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKU
		Sensor Info	Denton 1716A
		Serial Number	1716A_0445_MZ

Passenger upper neck (z) moment ZXL



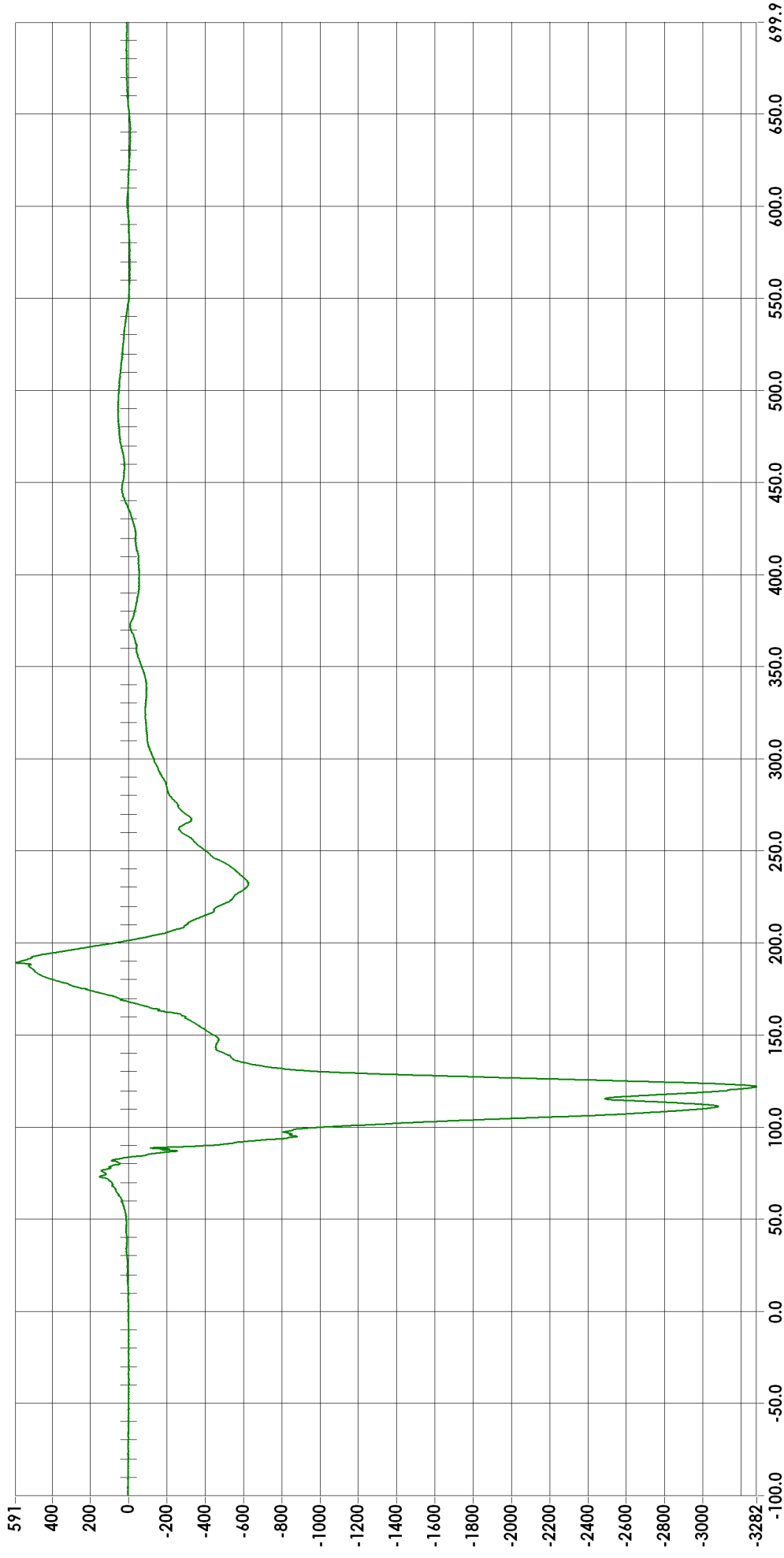
Max	12.03	NWM	at	115.84	msec
Min	-2.93	NWM	at	336.96	msec

SOI004 Plot 146



Test ID	SOI004	Filter	CFC1000	Sensor Location	NEKL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 3251_2155
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	3251_2155_152_FX

Passenger lower neck (x) force XL



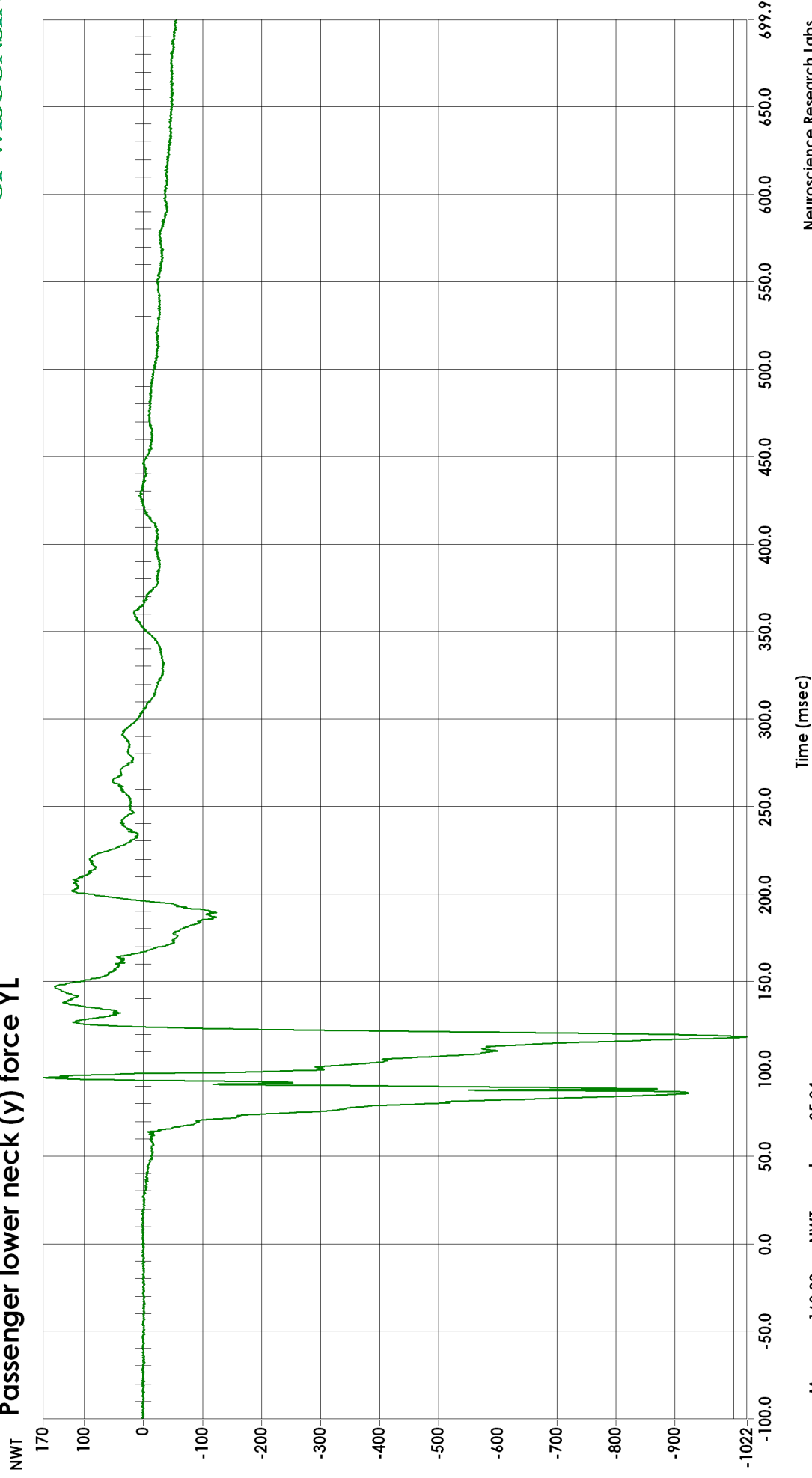
Time (msec)

Max	591.27	NWT	at	189.28	msec
Min	-3281.73	NWT	at	122.00	msec

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 3251_2155
		Serial Number	3251_2155_152_FY

Passenger lower neck (y) force YL



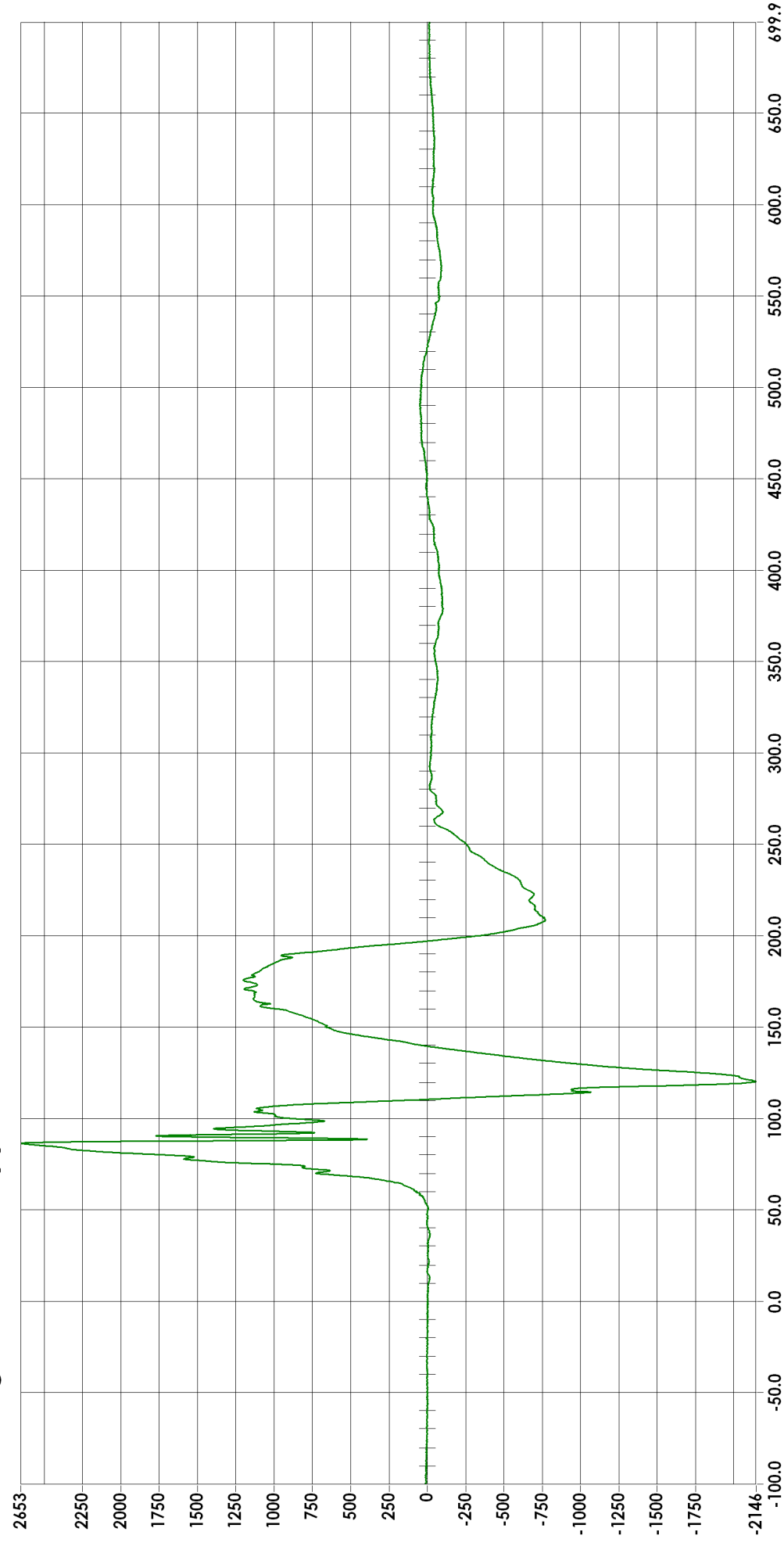
Max	169.90	NWT	at	95.04	msec
Min	-1022.44	NWT	at	118.32	msec

SOI004 Plot 148



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 3251_2155
		Serial Number	3251_2155_152_FZ

Passenger lower neck (z) force ZL



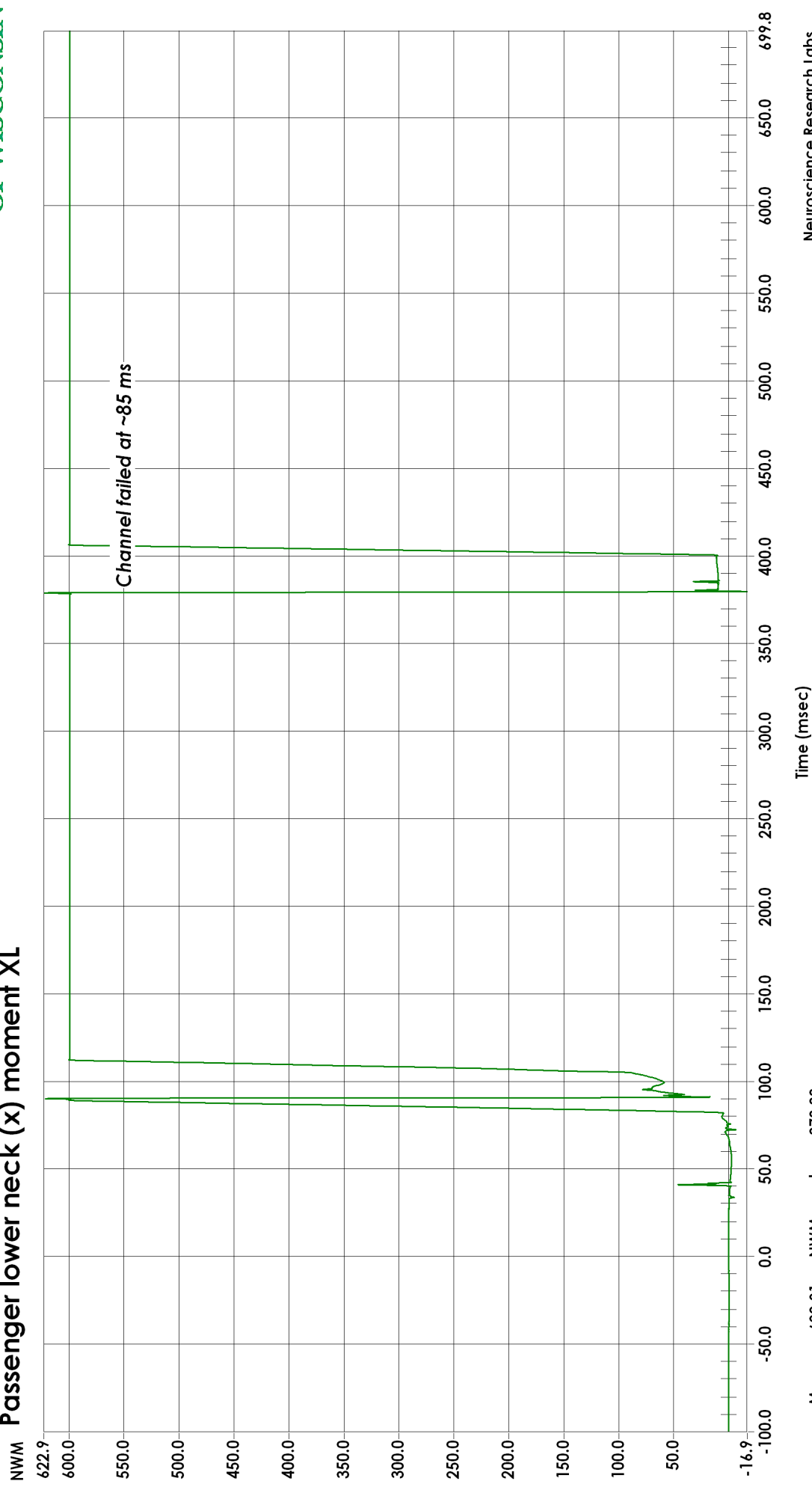
Time (msec)

Max	2653.04	NWT	at	86.48	msec
Min	-2146.38	NWT	at	120.32	msec

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Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 3251_2155
		Serial Number	3251_2155_152_MX

Passenger lower neck (x) moment XL

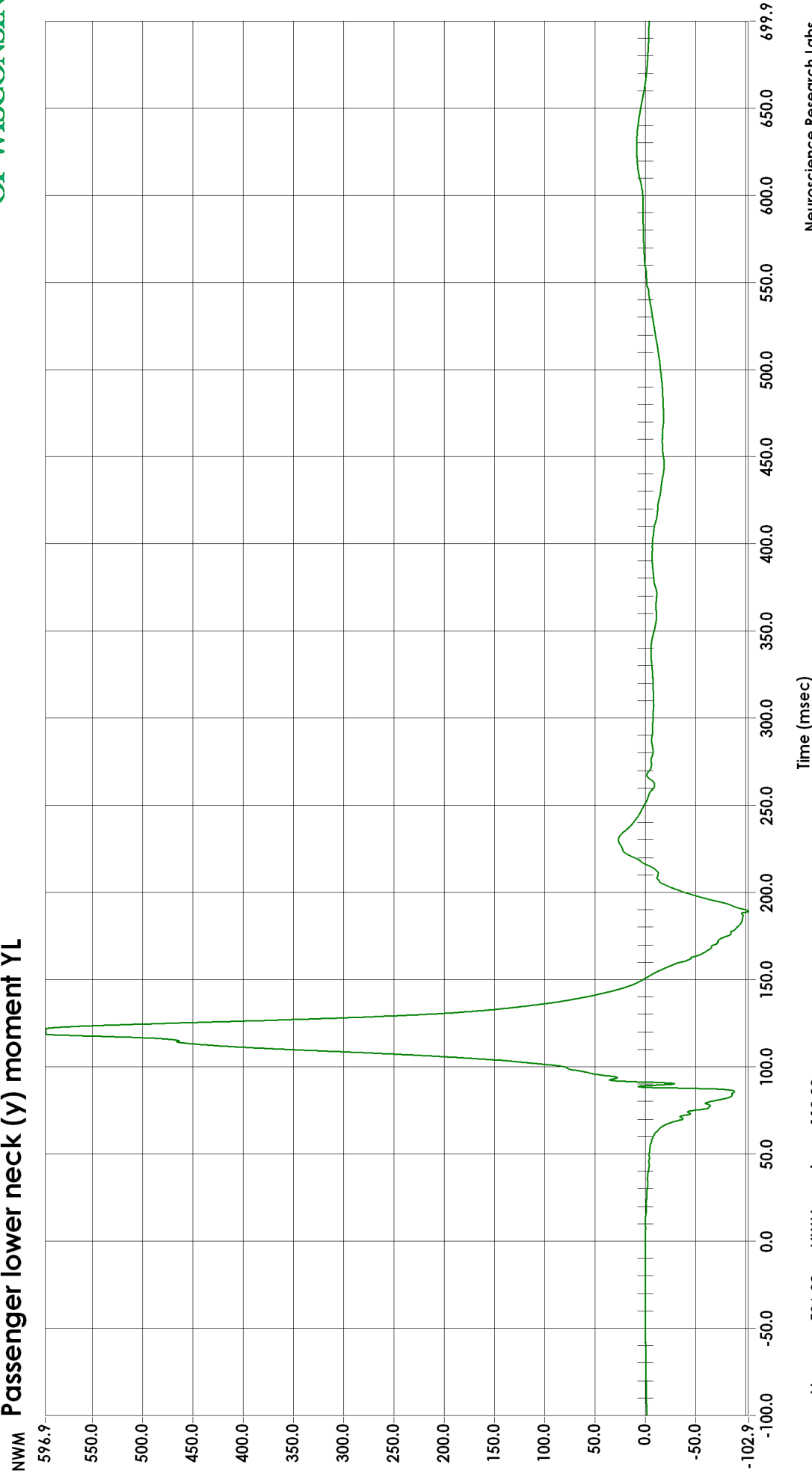


Max	622.91	NWM	at	378.88	msec
Min	-16.90	NWM	at	379.68	msec

SO1004 Plot 150

Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 3251_2155
		Serial Number	3251_2155_152_MY

Passenger lower neck (y) moment YL

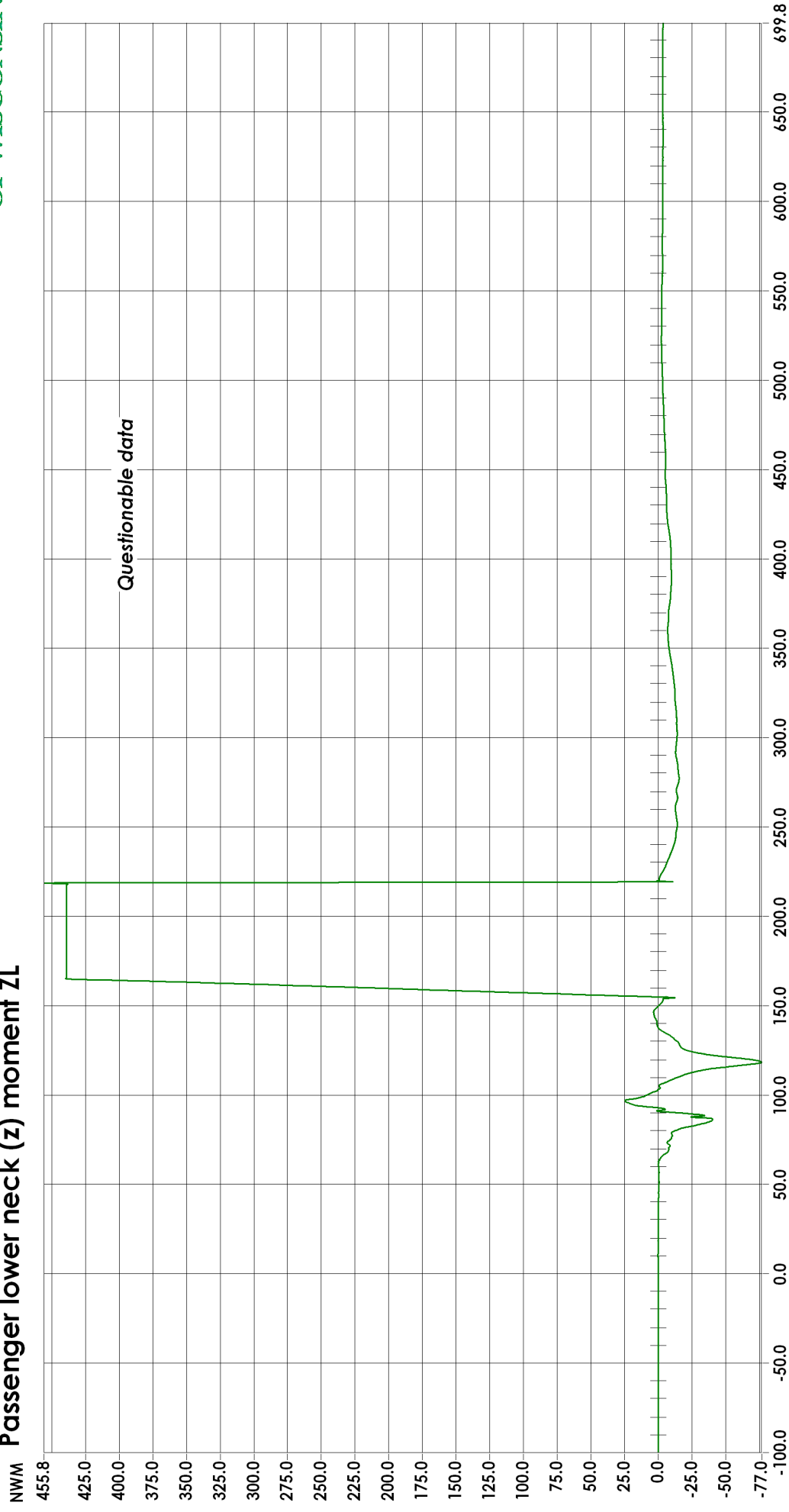


Max	596.88	NWM	at	118.88	msec
Min	-102.86	NWM	at	189.28	msec

SOI004 Plot 151

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	NEKL
		Sensor Info	Denton 3251_2155
		Serial Number	3251_2155_152_MZ

Passenger lower neck (z) moment ZL



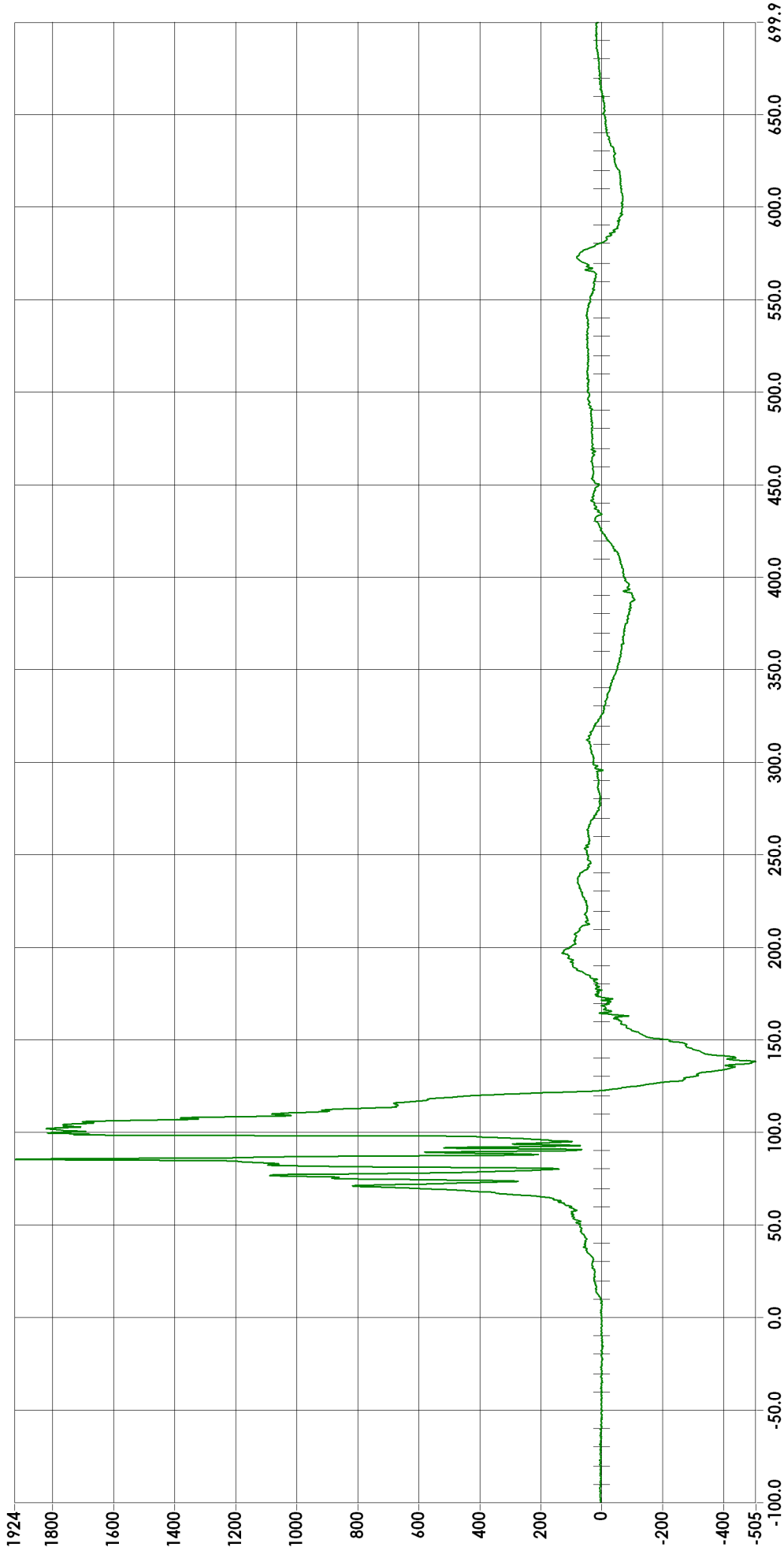
Time (msec)

Max	455.76	NWM	at	218.56	msec
Min	-76.98	NWM	at	118.40	msec

SO1004 Plot 152

Test ID	SO1004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRL
		Sensor Info	Denton 2121A
		Serial Number	2121A_257

Passenger left femur (z) force ZL



Time (msec)

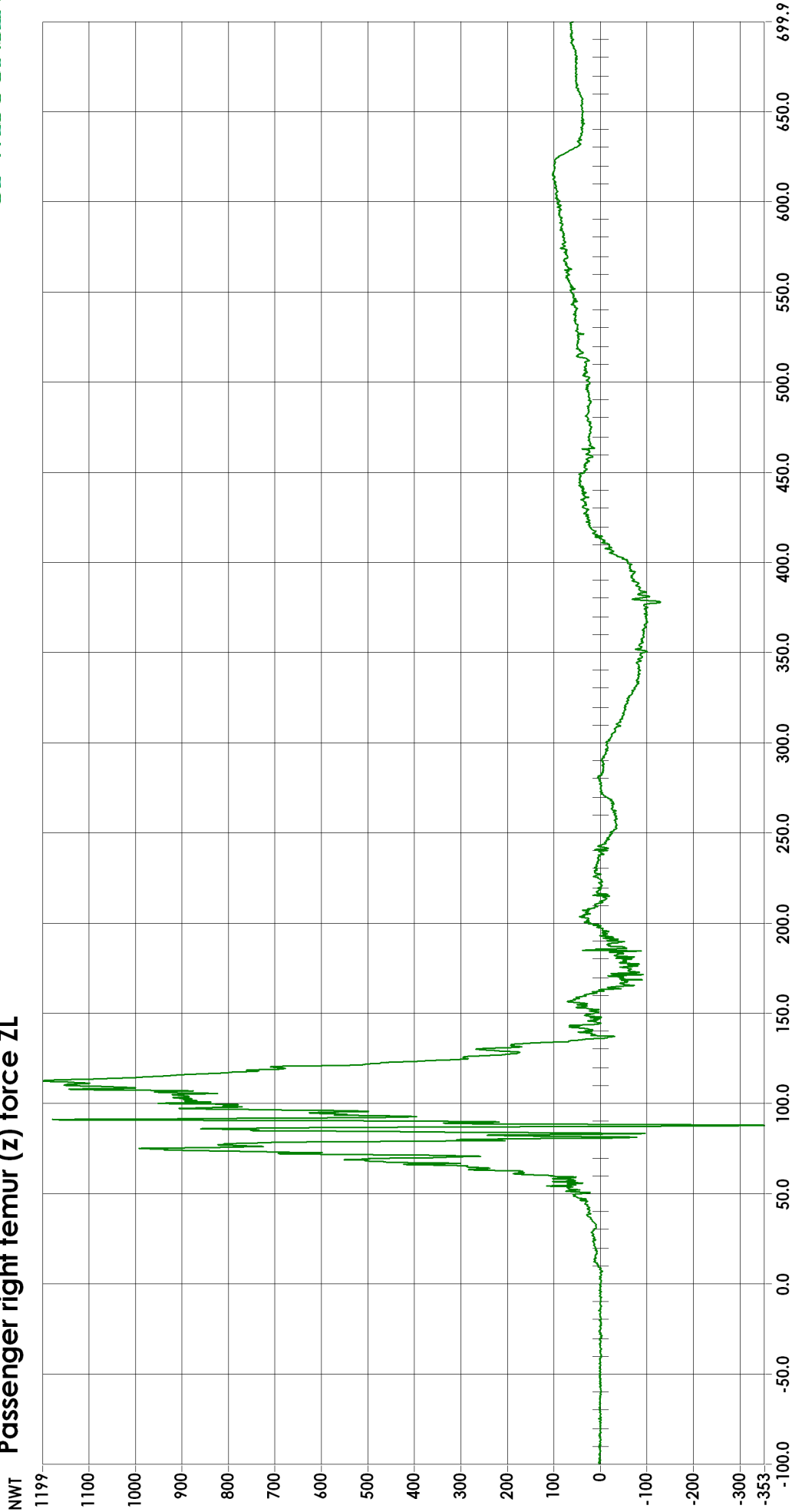
Max	1924.07	NWT	at	85.52	msec
Min	-505.26	NWT	at	138.40	msec

SO1004 Plot 153



Test ID	SOI004	Filter	CFC600
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FMRR
		Sensor Info	Denton 2121
		Serial Number	2121_255

Passenger right femur (z) force ZL

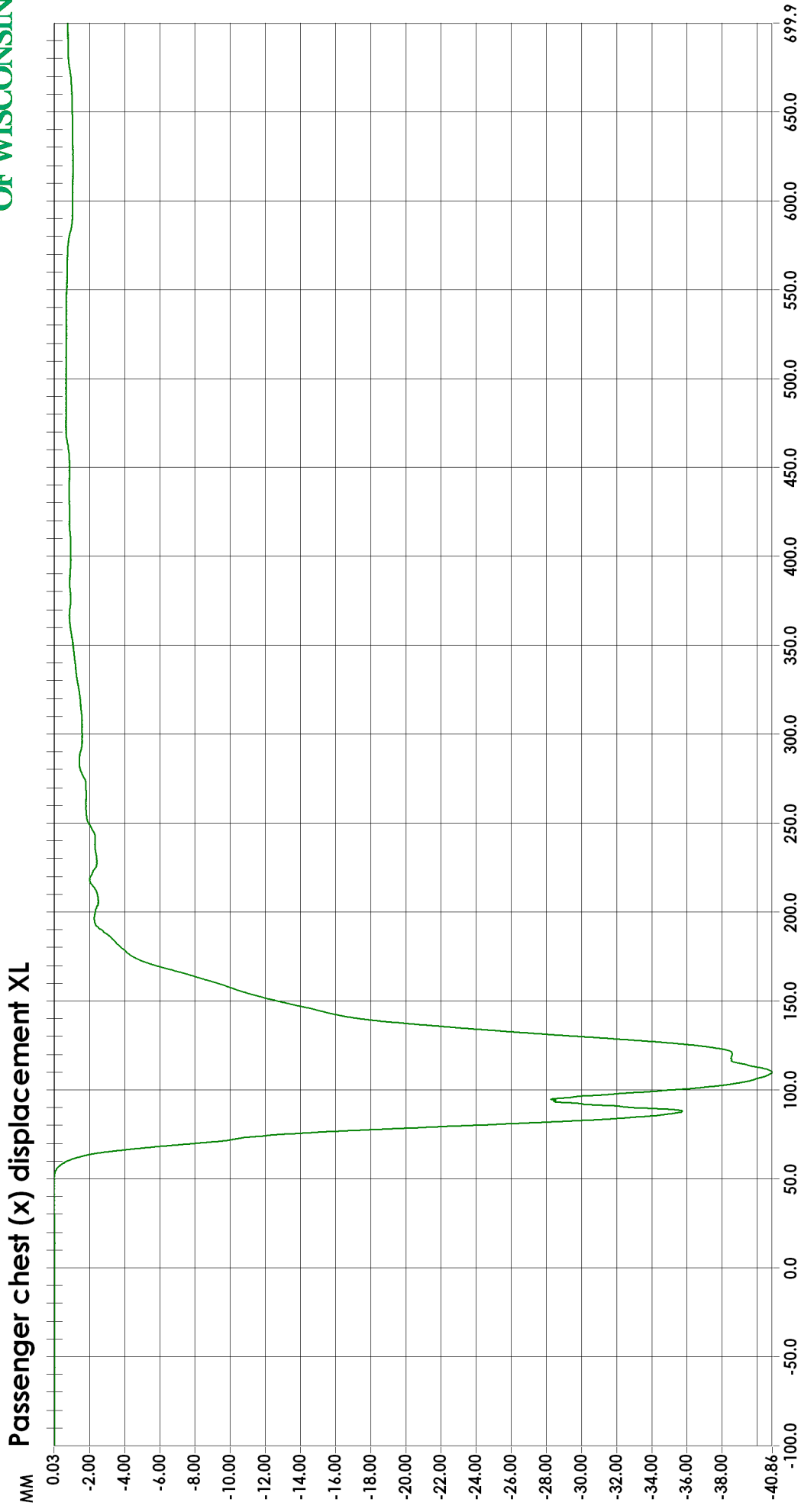


Max	1199.42	NWT	at	112.56	msec
Min	-353.29	NWT	at	87.92	msec

SOI004 Plot 154

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	CHST
		Sensor Info	DENTON 14CB1-2897
		Serial Number	CST421



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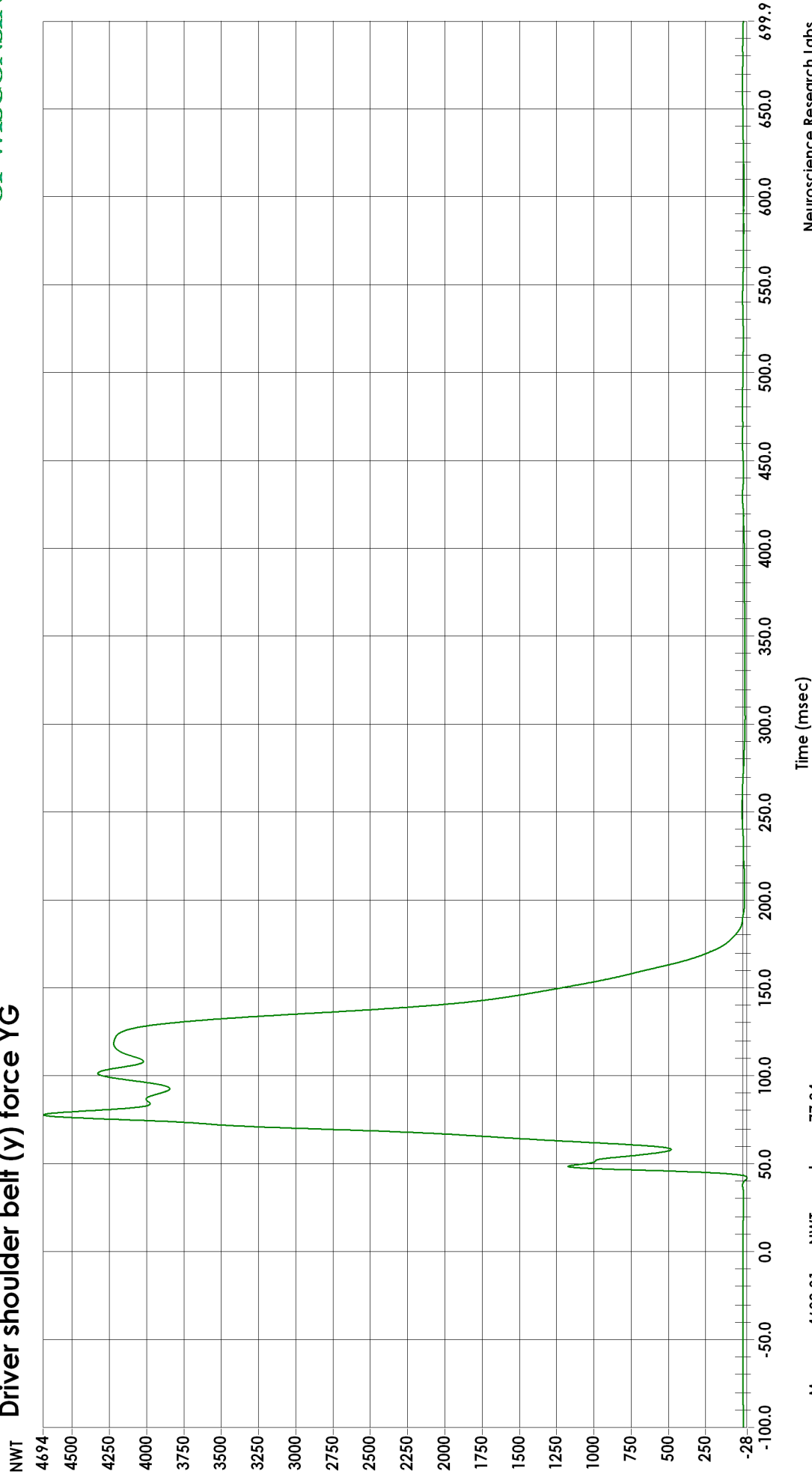
Max	0.03	MM	at	33.92	msec
Min	-40.86	MM	at	109.92	msec

SOI004 Plot 155



Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	SHBT
		Sensor Info	Denton 1910
		Serial Number	1910_164

Driver shoulder belt (y) force YG



Max	4693.91	NWT	at	77.84	msec
Min	-28.24	NWT	at	42.08	msec

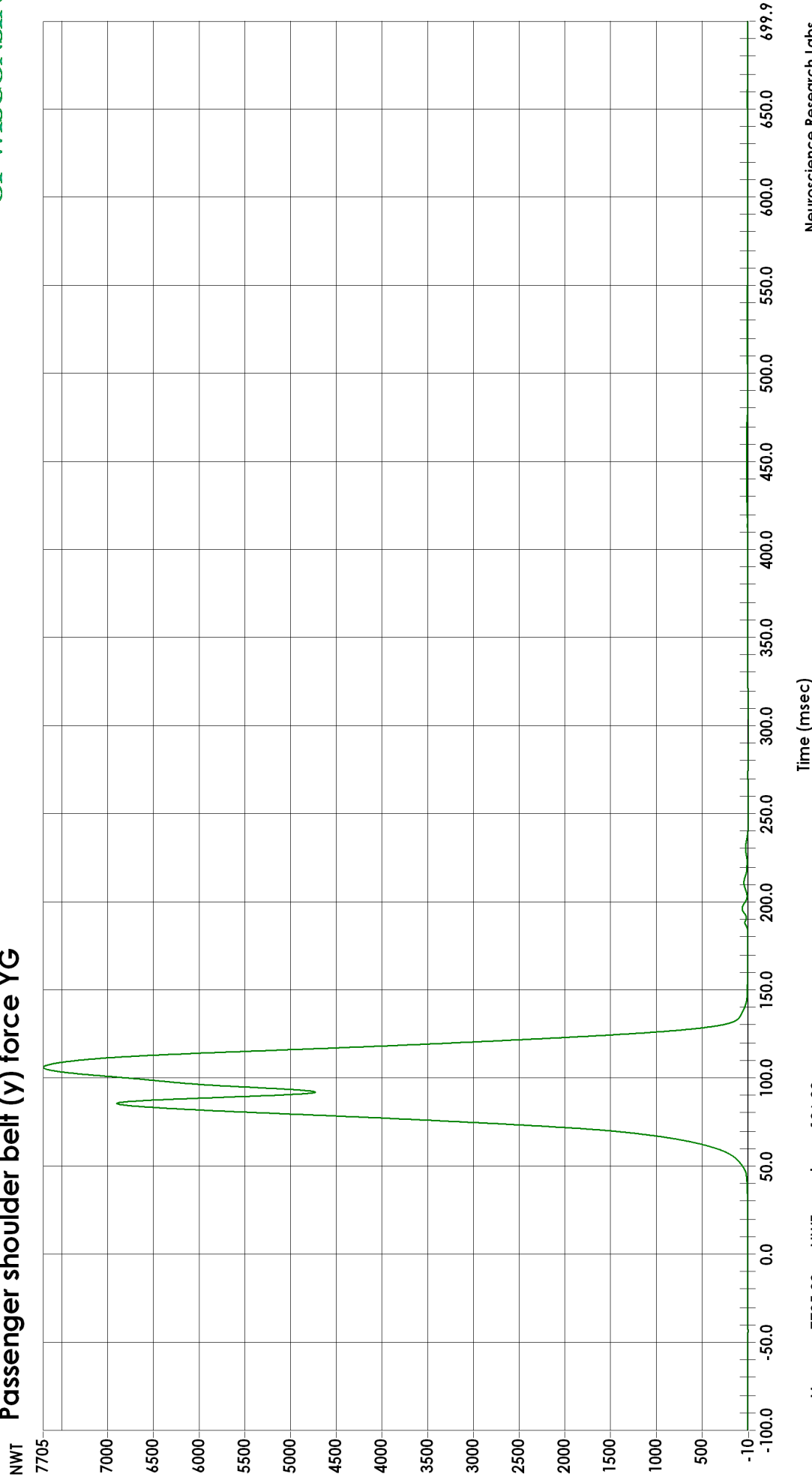
SOI004 Plot 156

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Test ID	SOI004	Filter	CFC60	Sensor Location	SHBT
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Denton 1910
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1910_166

Passenger shoulder belt (y) force YG



Max	7705.03	NWT	at	106.08	msec
Min	-10.19	NWT	at	300.88	msec

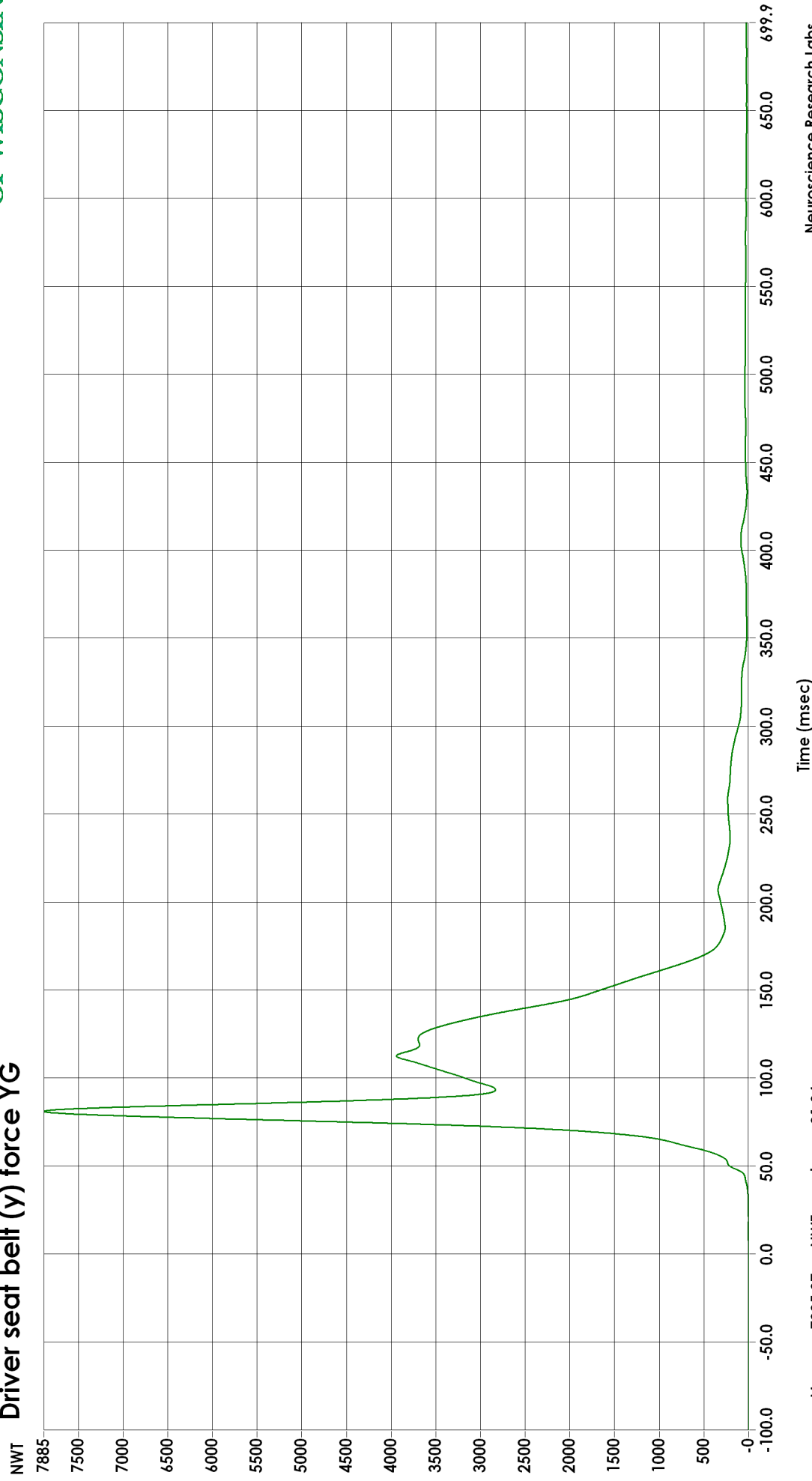
SOI004 Plot 157

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Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	LPBO
		Sensor Info	Denton 3255
		Serial Number	3255_270

Driver seat belt (y) force YG



Max	7885.07	NWT	at	81.04	msec
Min	-0.32	NWT	at	-31.44	msec

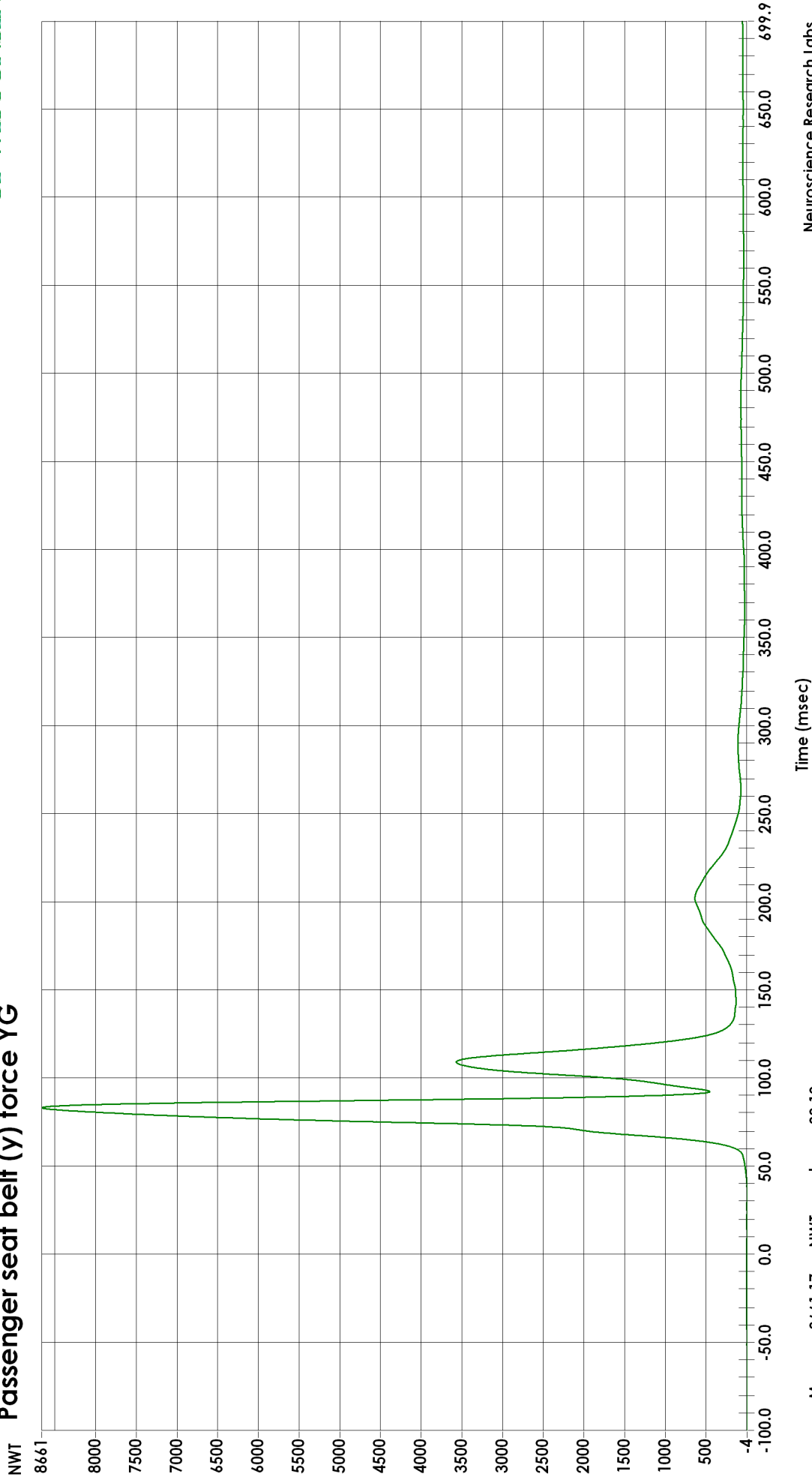
SO1004 Plot 158

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Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretigger Points	1250
		Sensor Location	LPBO
		Sensor Info	Denton 3255
		Serial Number	3255_271

Passenger seat belt (y) force YG



Max	8661.17	NWT	at	83.12	msec
Min	-4.39	NWT	at	34.32	msec

SO1004 Plot 159

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

DSLR

Sensor Info

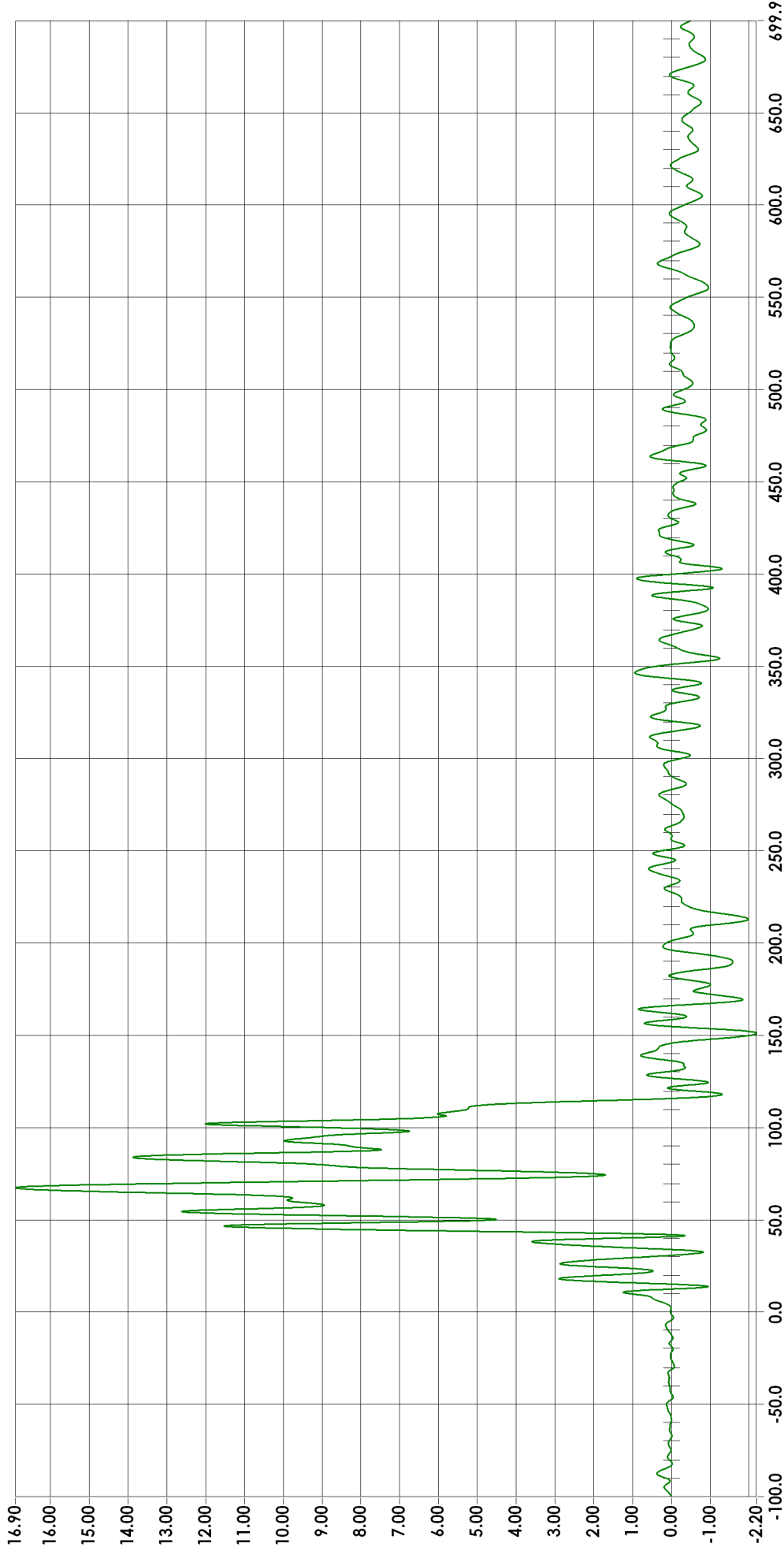
ENDEVCO 7264C-2KTZ-2-300

Serial Number

P21820



G's Left rear seat cross member (y) acceleration YG



Time (msec)

Max	16.90	G's	at	67.36	msec
Min	-2.20	G's	at	151.12	msec

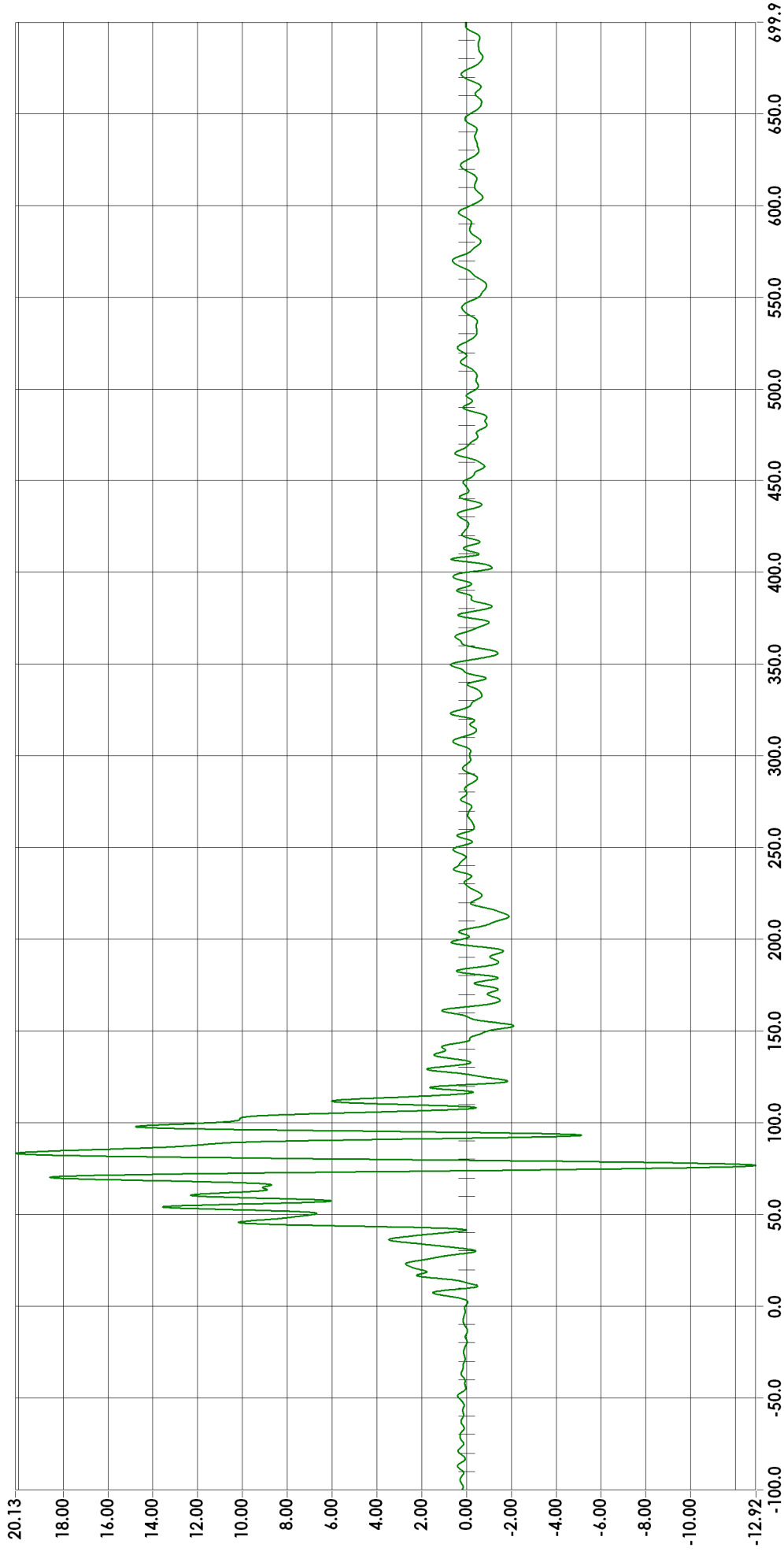
SOI004 Plot 160

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Milwaukee, WI 53295



Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	DSRR
		Sensor Info	ENDEVCO 7264C-2KTZ-2-180
		Serial Number	P12746

G's Right rear seat cross member (y) acceleration YG



Time (msec)

Max	20.13	G's	at	83.36	msec
Min	-12.92	G's	at	76.80	msec

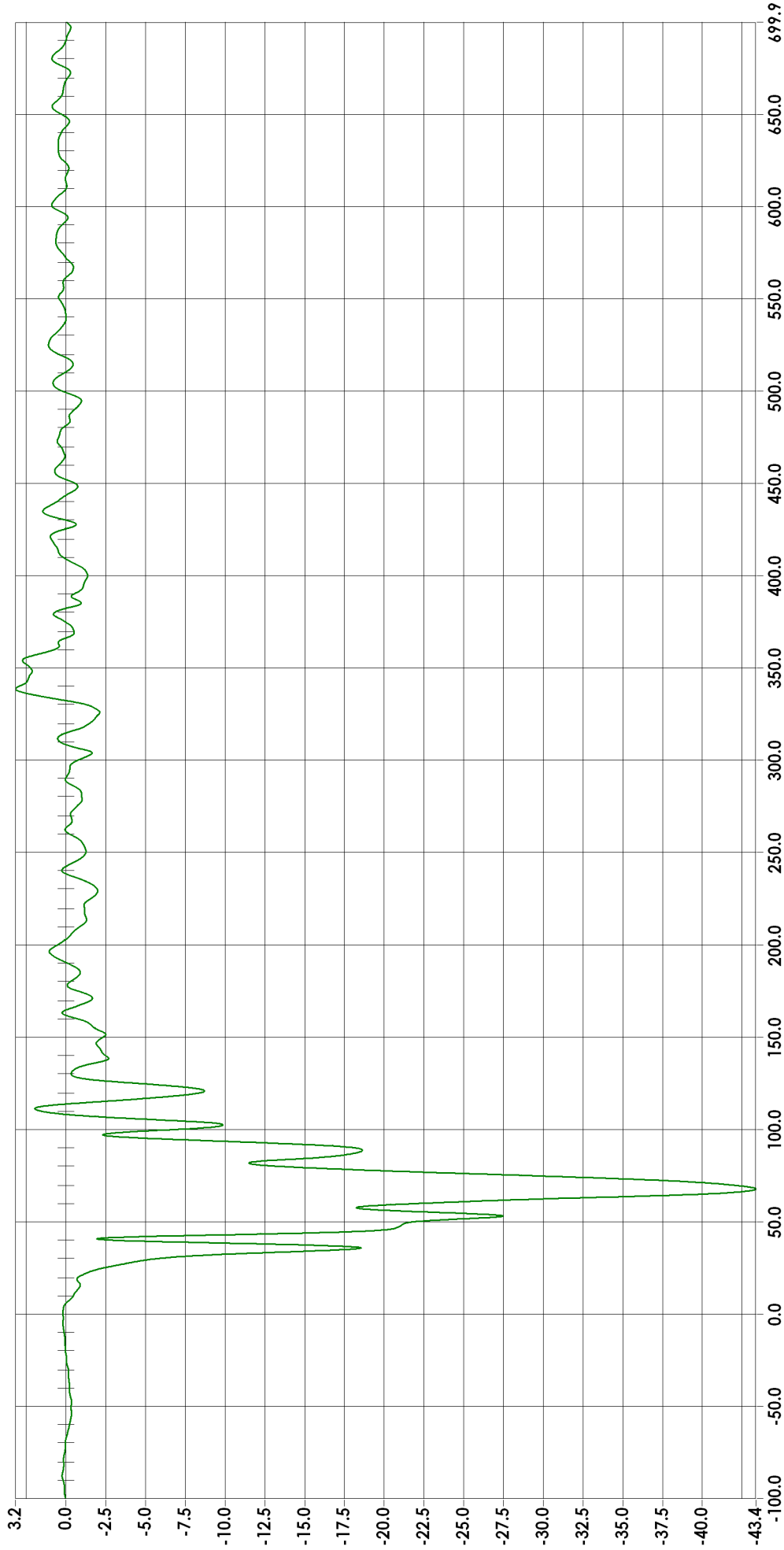
Neuroscience Research Labs
5000 West National Ave
Research 151
Milwaukee, WI 53295

SO1004 Plot 161



Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	ENGN
		Sensor Info	MSI 1201-1000-10-360X
		Serial Number	A007267

Top of engine block (x) acceleration XG



Time (msec)

Max	3.18	G's	at	338.64	msec
Min	-43.38	G's	at	67.76	msec

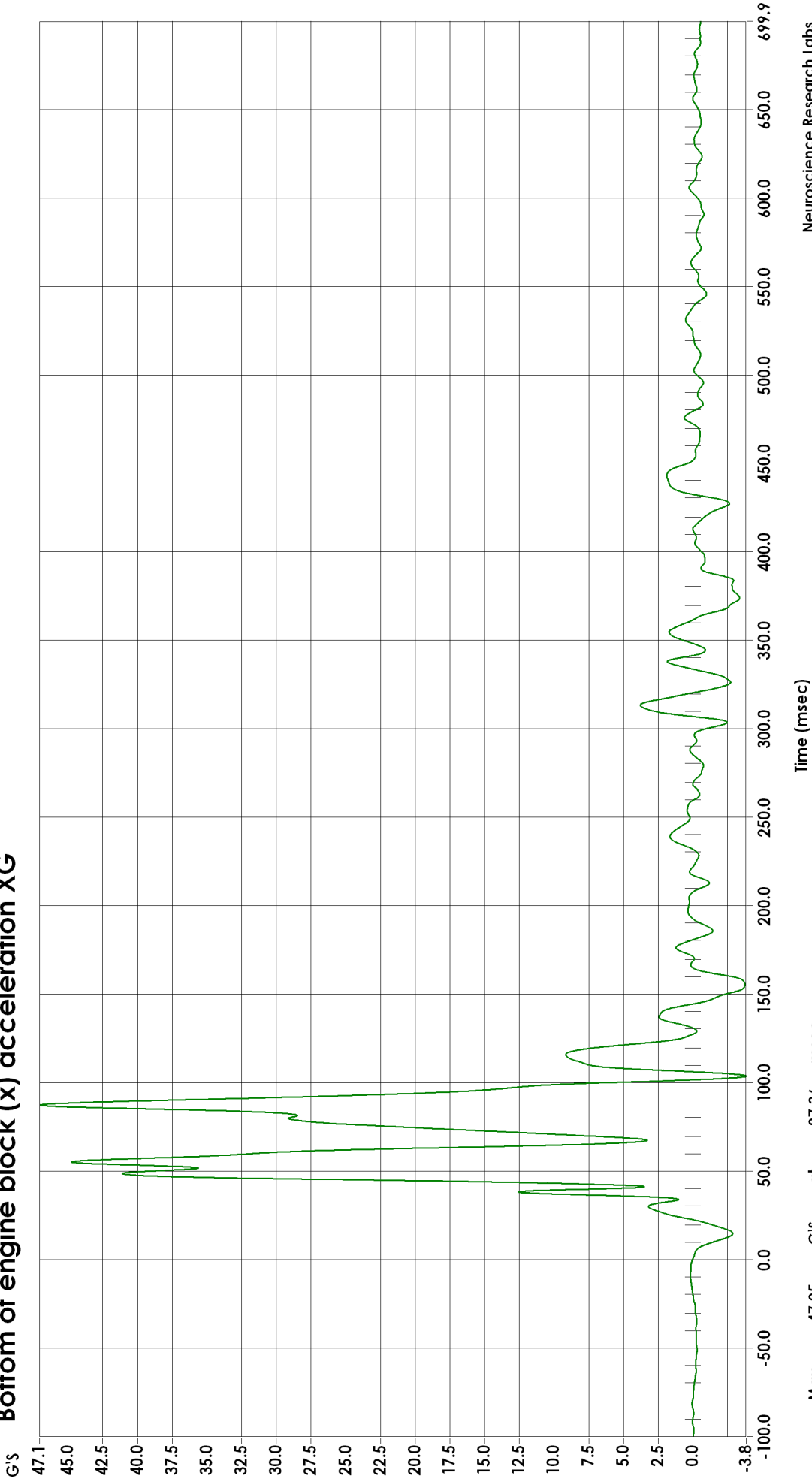
SO1004 Plot 162

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Milwaukee, WI 53295

Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	ENG
		Sensor Info	ENDEVCO 7264C-2KTZ-2-300
		Serial Number	P22998



Bottom of engine block (x) acceleration XG



Max	47.05	G's	at	87.36	msec
Min	-3.84	G's	at	103.76	msec

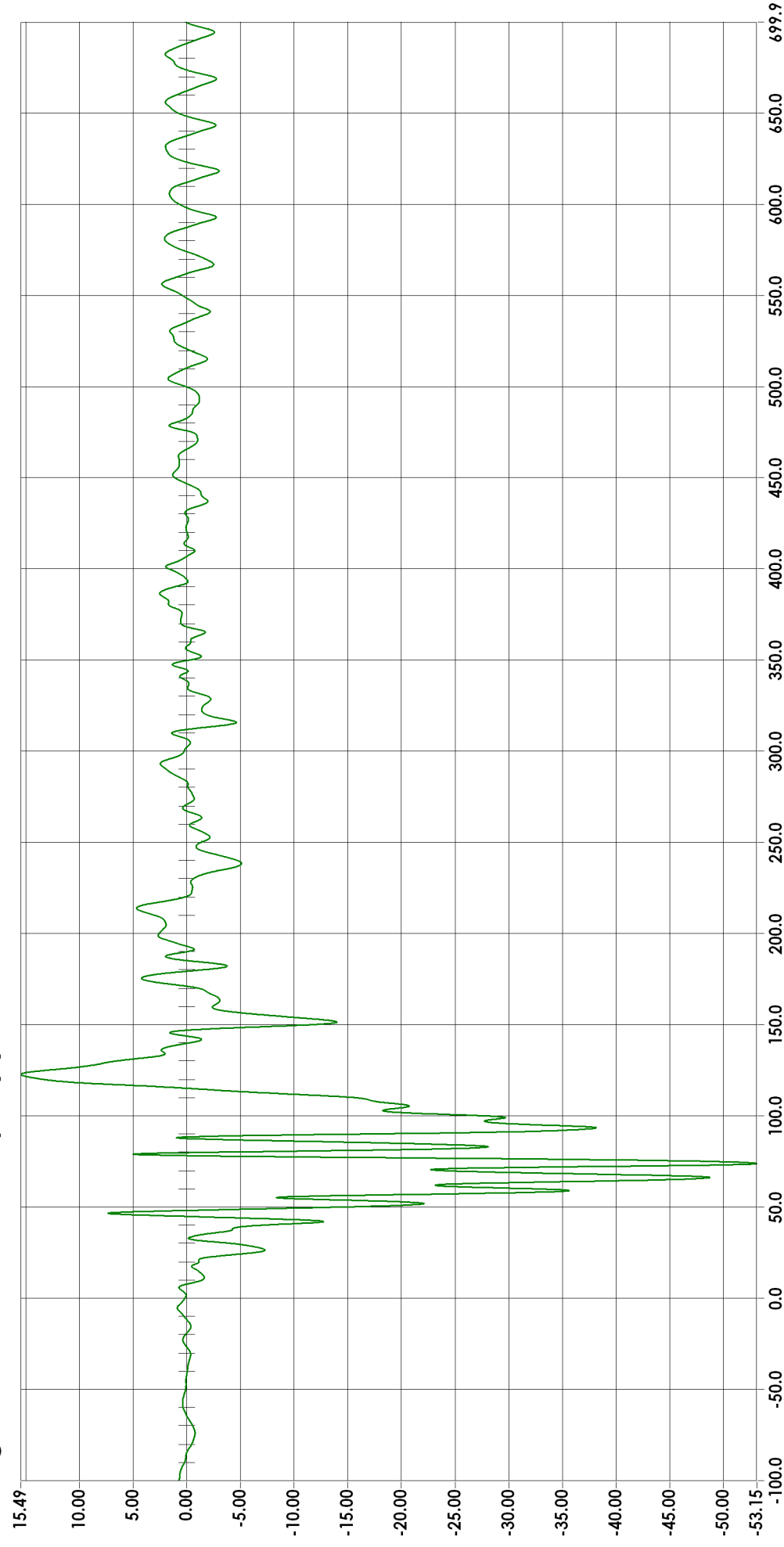
SOI004 Plot 163

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Milwaukee, WI 53295



Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	BRCR
		Sensor Info	MSI 52-2000-10-360-XY
		Serial Number	A011644

G's Right front disc brake caliper (x) acceleration XG



Time (msec)

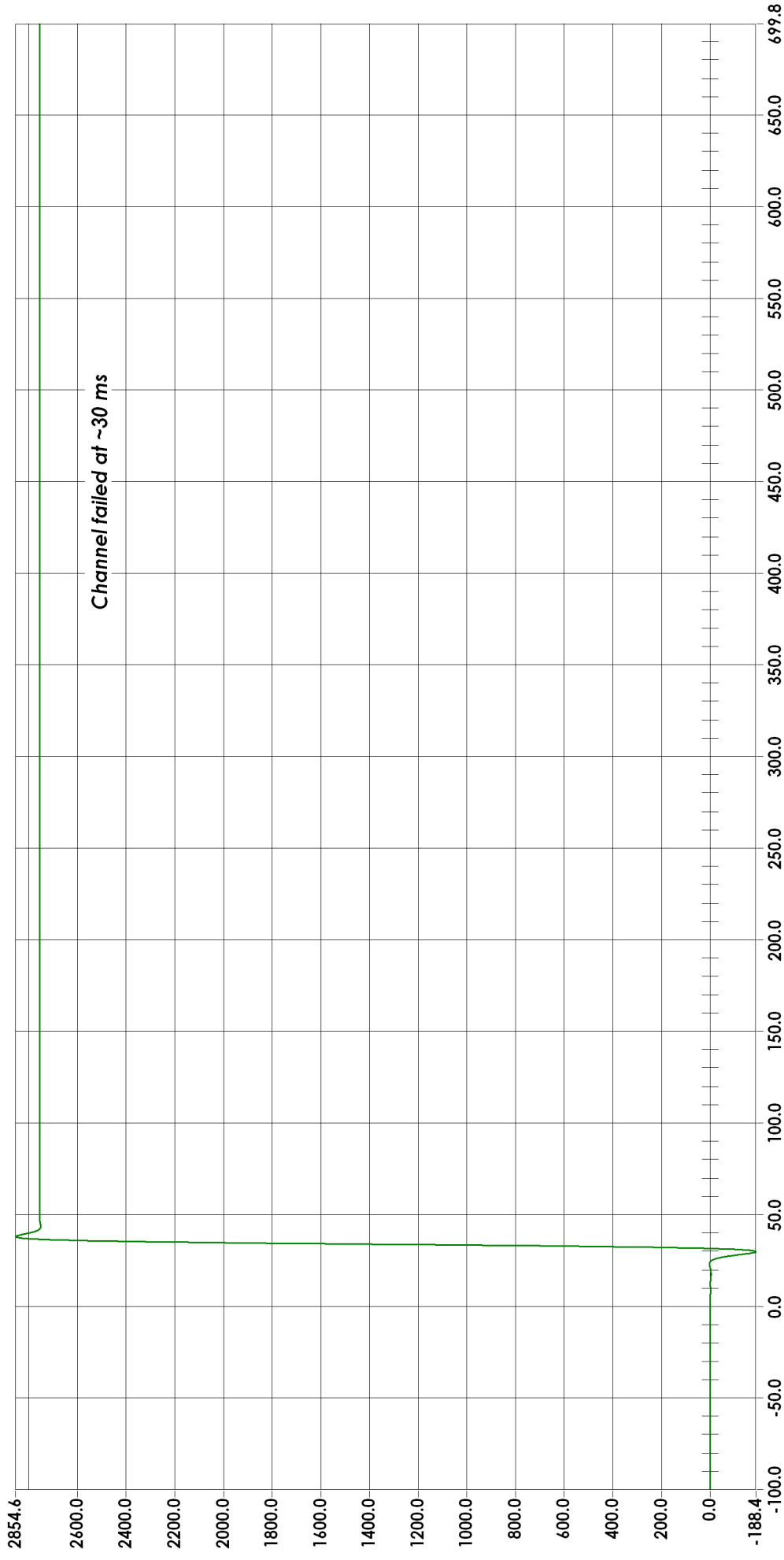
Max	15.49	G's	at	122.80	msec
Min	-53.15	G's	at	73.92	msec

SO1004 Plot 164

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Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Sensor Location	BRC1
		Sensor Info	MSI 52-2000-10-360-XY
		Serial Number	A011649
		Number of Points	10000
		Prefrigger Points	1250

G's Left front disc brake caliper (x) acceleration XG



Time (msec)

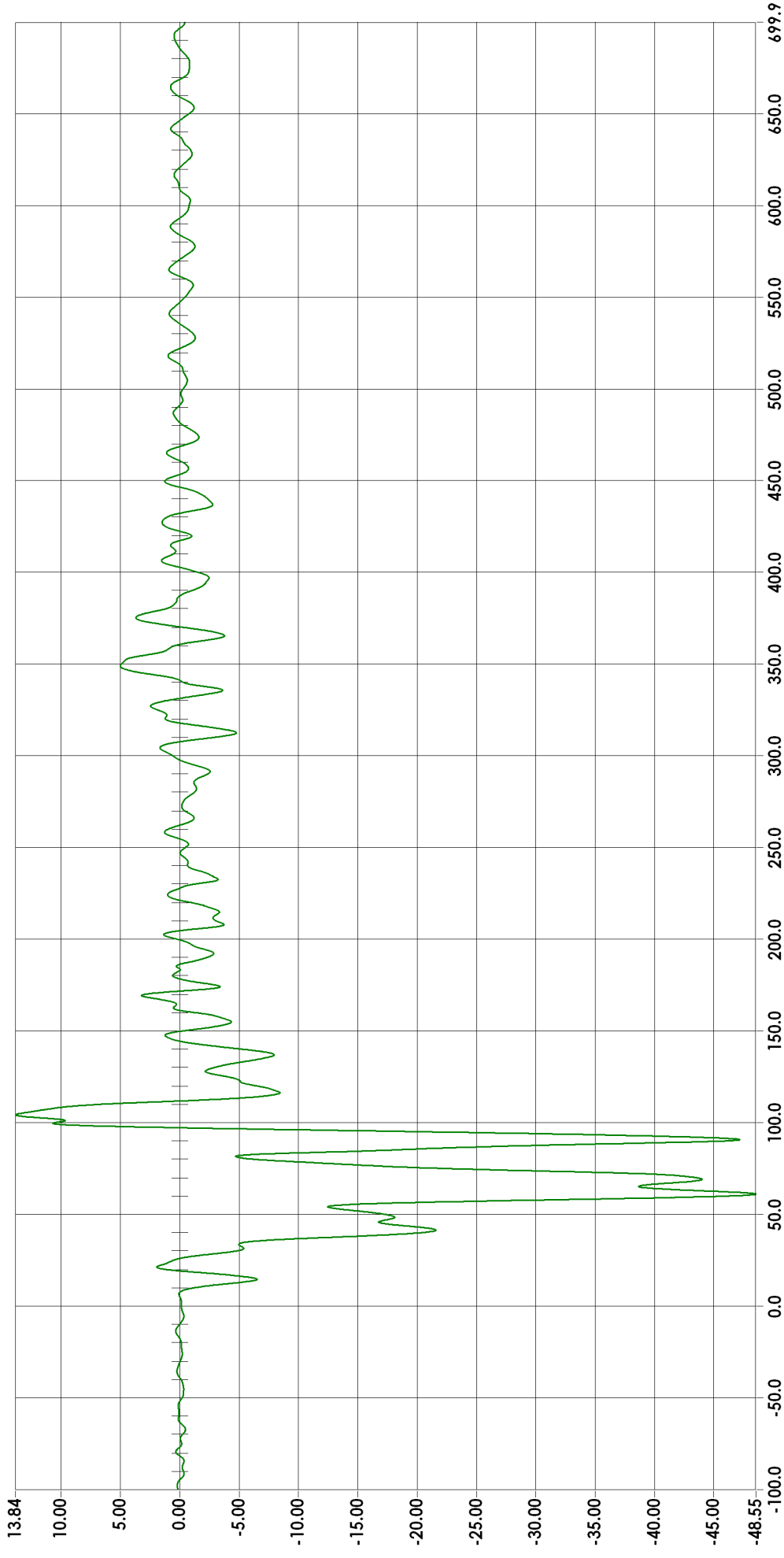
Max	2854.64	G's	at	38.00	msec
Min	-188.36	G's	at	29.84	msec

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Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	DPLC
		Sensor Info	ENDEVCO 7264-2000
		Serial Number	J44049

G's Instrument panel (x) acceleration XG



Time (msec)

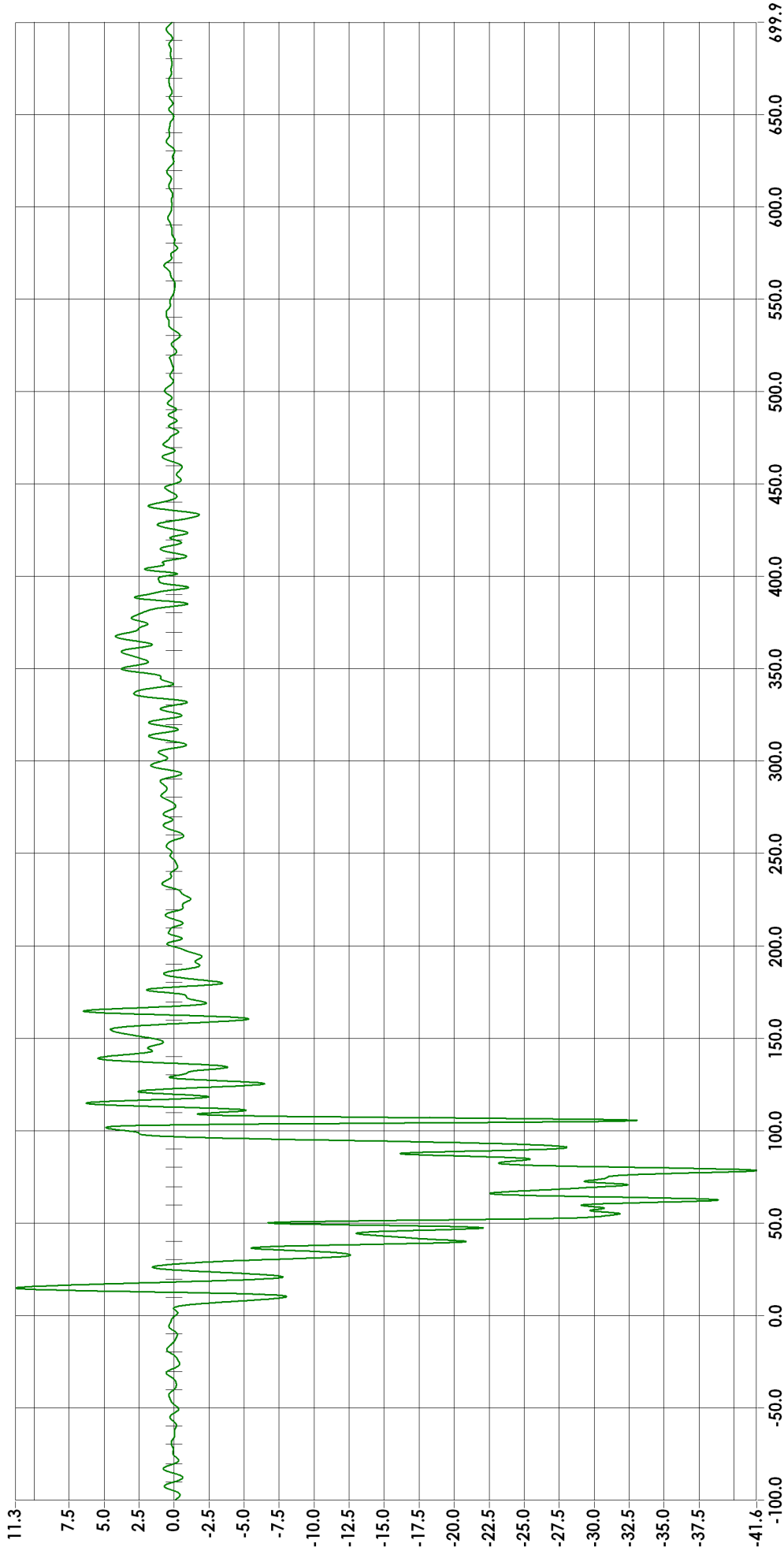
Max	13.84	G's	at	104.32	msec
Min	-48.55	G's	at	61.12	msec

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Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	DSLIR
		Sensor Info	ENDEVCO 7264-2000TZ
		Serial Number	J43474

G's Left rear seat cross member (x) acceleration XG



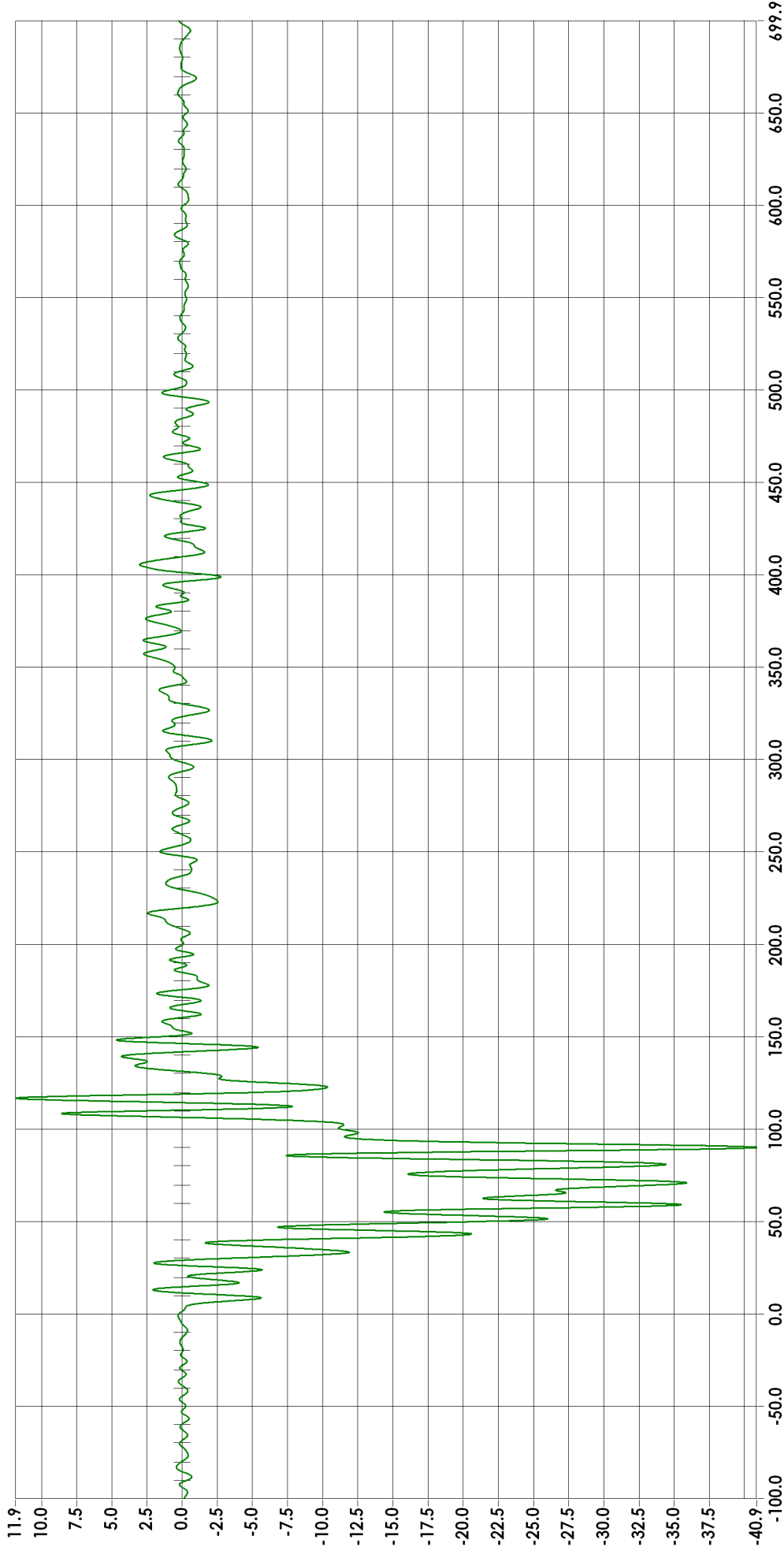
Time (msec)

Max	11.33	G's	at	14.80	msec
Min	-41.62	G's	at	78.40	msec

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Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Sensor Location	DSRR
		Sensor Info	ENDEVCO 7264C-2KTZ-2-180
		Serial Number	P13835
		Number of Points	10000
		Prefrigger Points	1250

G's Right rear seat cross member (x) acceleration XG



Time (msec)

Max	11.85	G's	at	116.72	msec
Min	-40.88	G's	at	90.08	msec

SO1004 Plot 168

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

VECG

Sensor Info

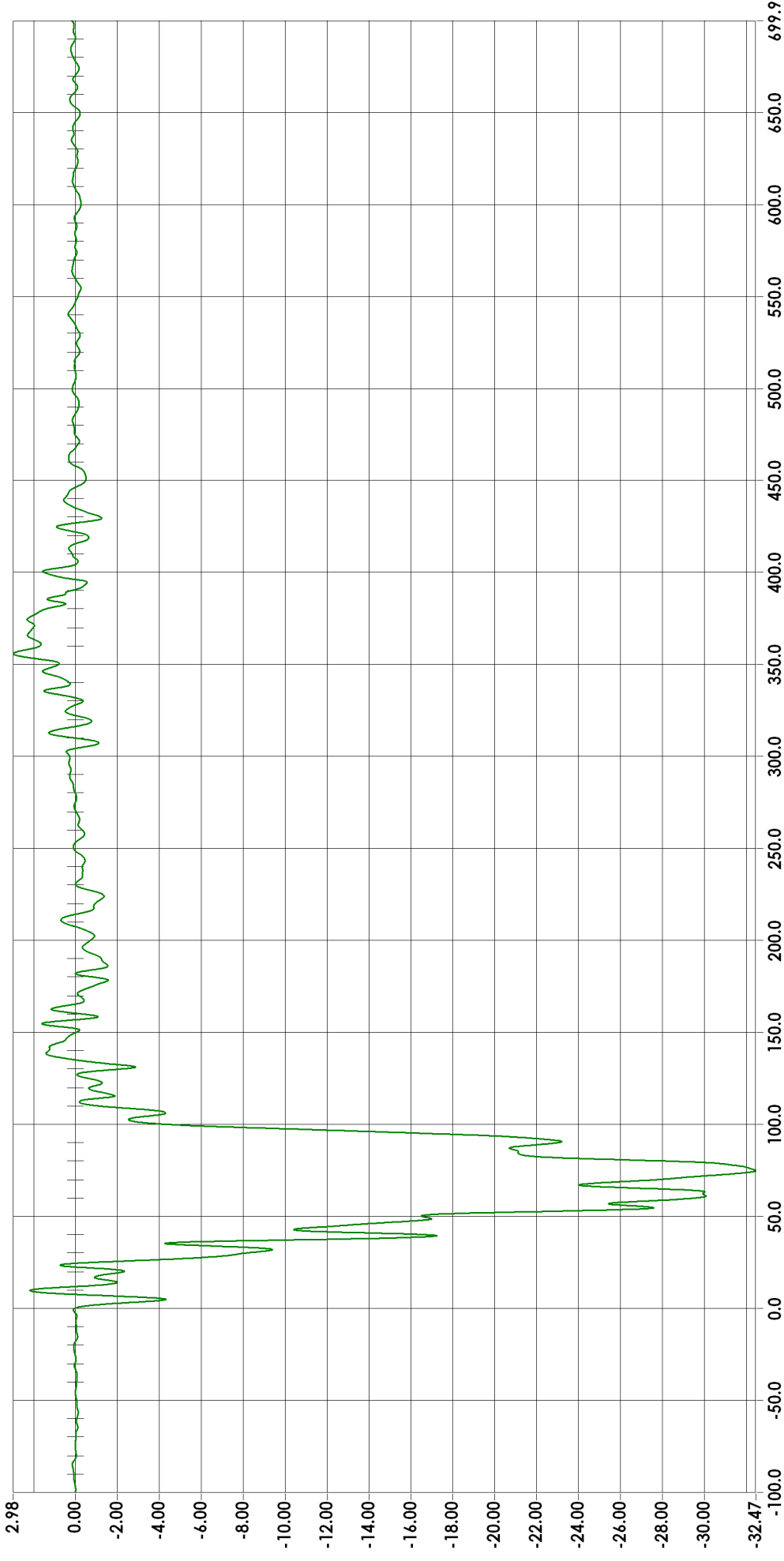
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12094

G's

Vehicle center of gravity (x) acceleration XG



Max

2.98

G's

at

355.92

msec

Min

-32.47

G's

at

74.88

msec

SOI004 Plot 169

Neuroscience Research Labs

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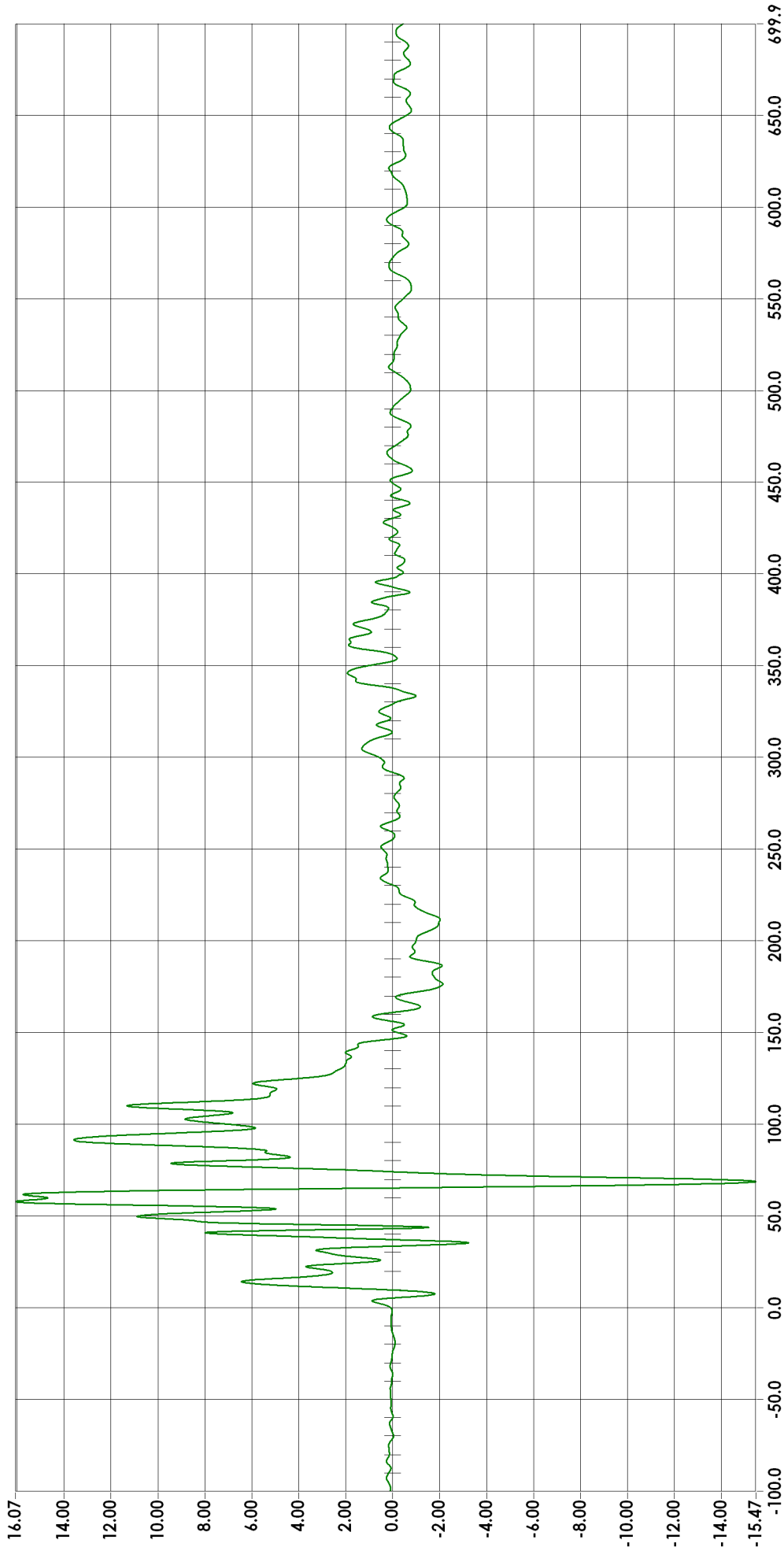
Research 151

Milwaukee, WI 53295



Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	VECG
		Sensor Info	MSI 64-2000-10-360-XY
		Serial Number	A011107

G's Vehicle center of gravity (y) acceleration YG



Time (msec)

Max	16.07	G's	at	57.84	msec
Min	-15.47	G's	at	68.80	msec

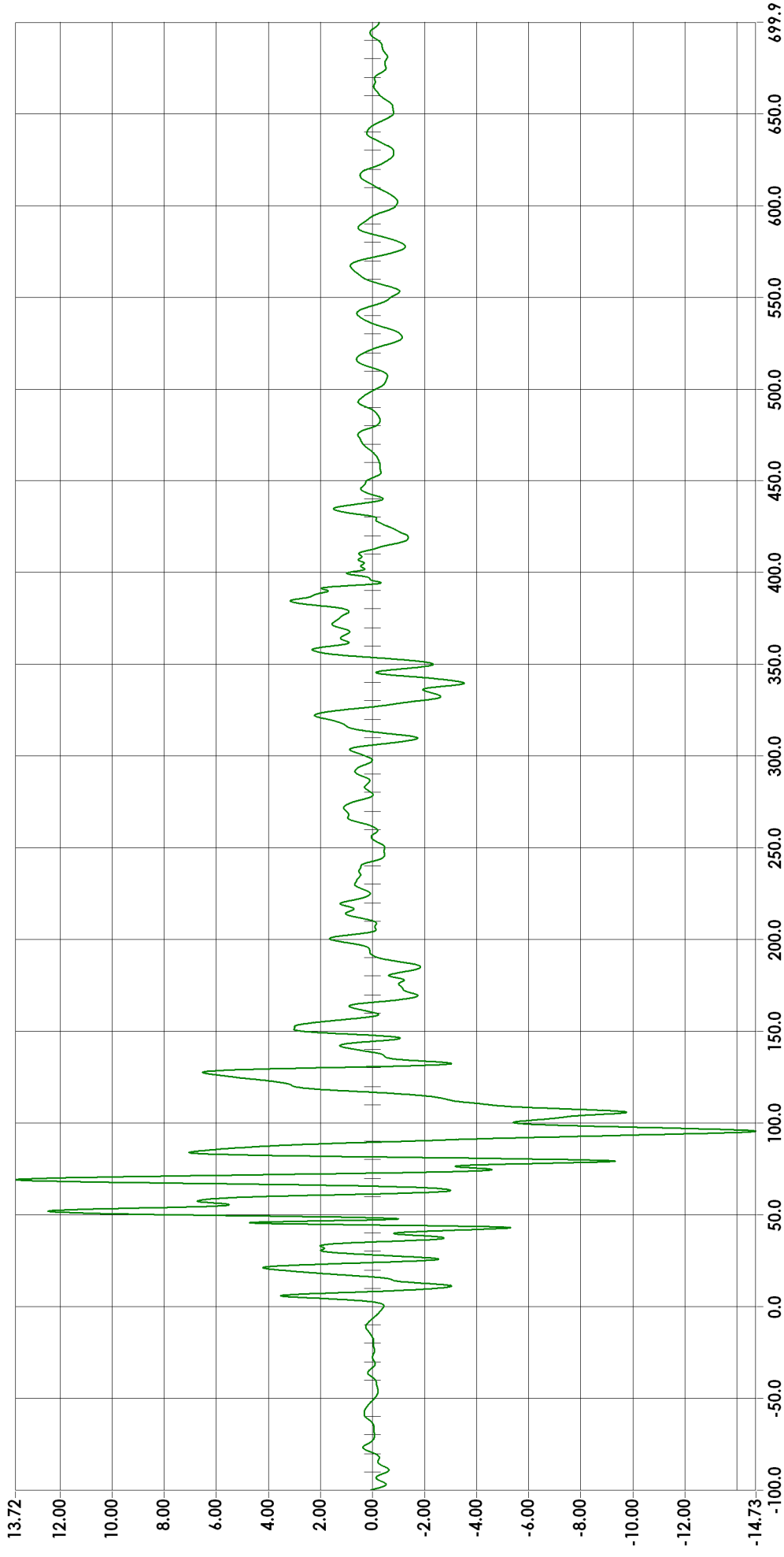
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Milwaukee, WI 53295

SOI004 Plot 170



Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	VECG
		Sensor Info	MSI 64-2000-10-360-XY
		Serial Number	A011096

G's Vehicle center of gravity (z) acceleration ZG



Time (msec)

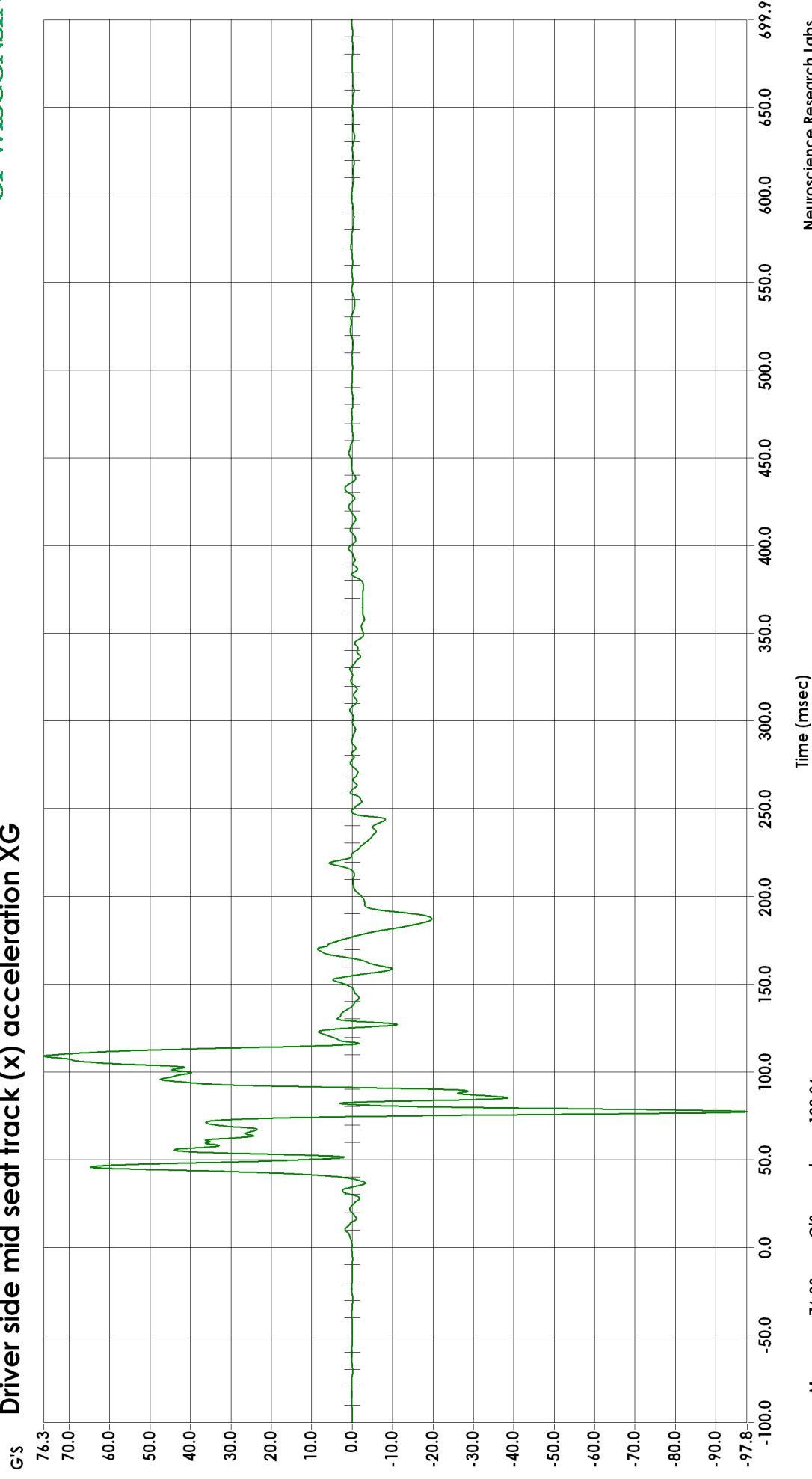
Max	13.72	G's	at	69.12	msec
Min	-14.73	G's	at	95.60	msec

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SO1004 Plot 171

Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	STLF
		Sensor Info	MSI 52-2000-10-360-XY
		Serial Number	A011625

Driver side mid seat track (x) acceleration XG

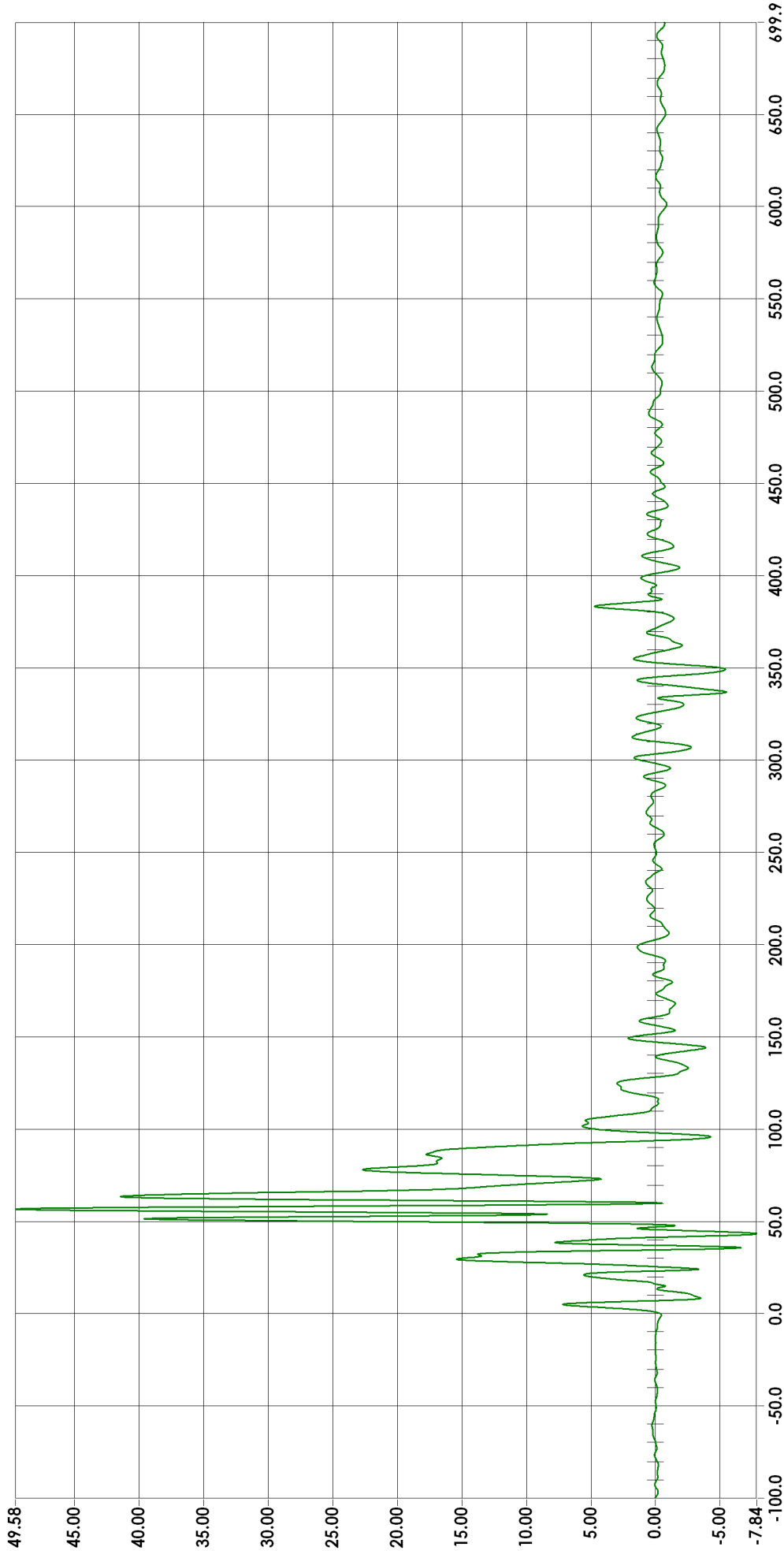


Max	76.29	G's	at	108.96	msec
Min	-97.79	G's	at	77.20	msec

SOI004 Plot 172

Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FLIF
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12089

Accelerator pedal (x) acceleration XG



Time (msec)

Max	49.58	G's	at	56.64	msec
Min	-7.84	G's	at	43.28	msec

SO1004 Plot 173

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

FLIF

Sensor Info

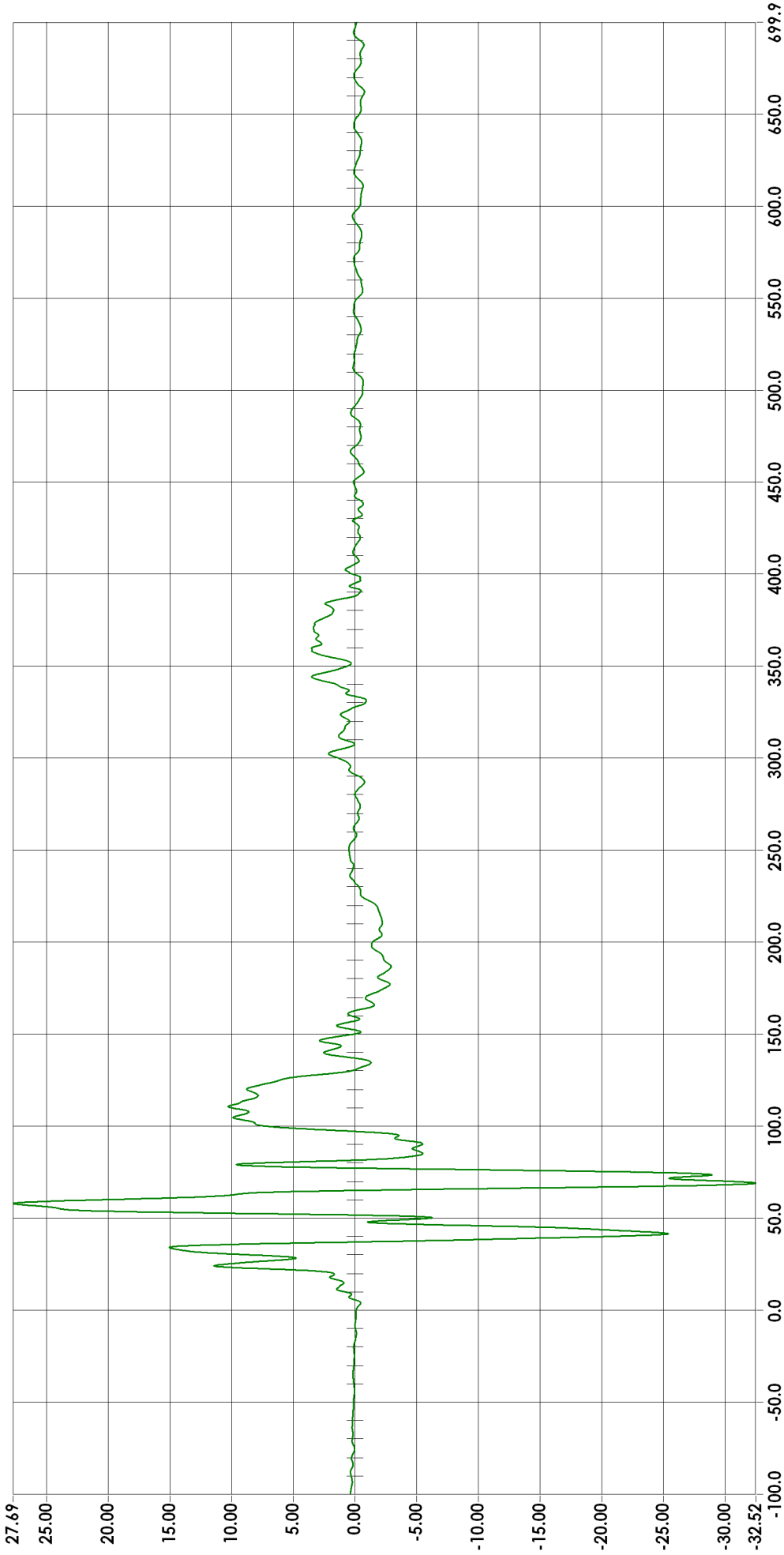
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12146



Accelerator pedal (y) acceleration YG



Max

27.69

G's

at

58.00

msec

Min

-32.52

G's

at

69.12

msec

Time (msec)

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

FLF

Sensor Info

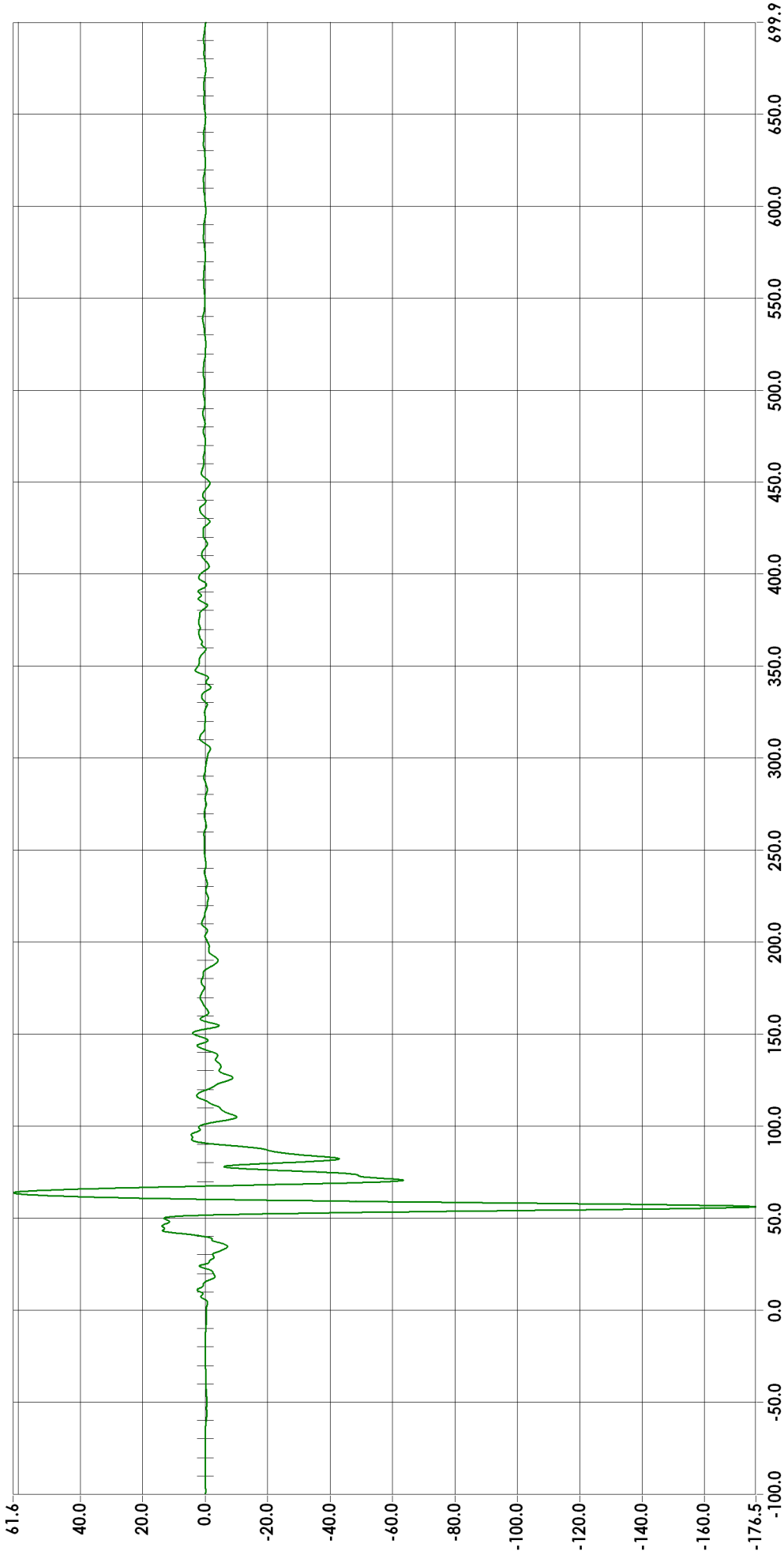
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12088



Accelerator pedal (z) acceleration ZG



Max

61.56

G's

at

63.84

msec

Min

-176.47

G's

at

56.24

msec

Time (msec)

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

FLF

Sensor Info

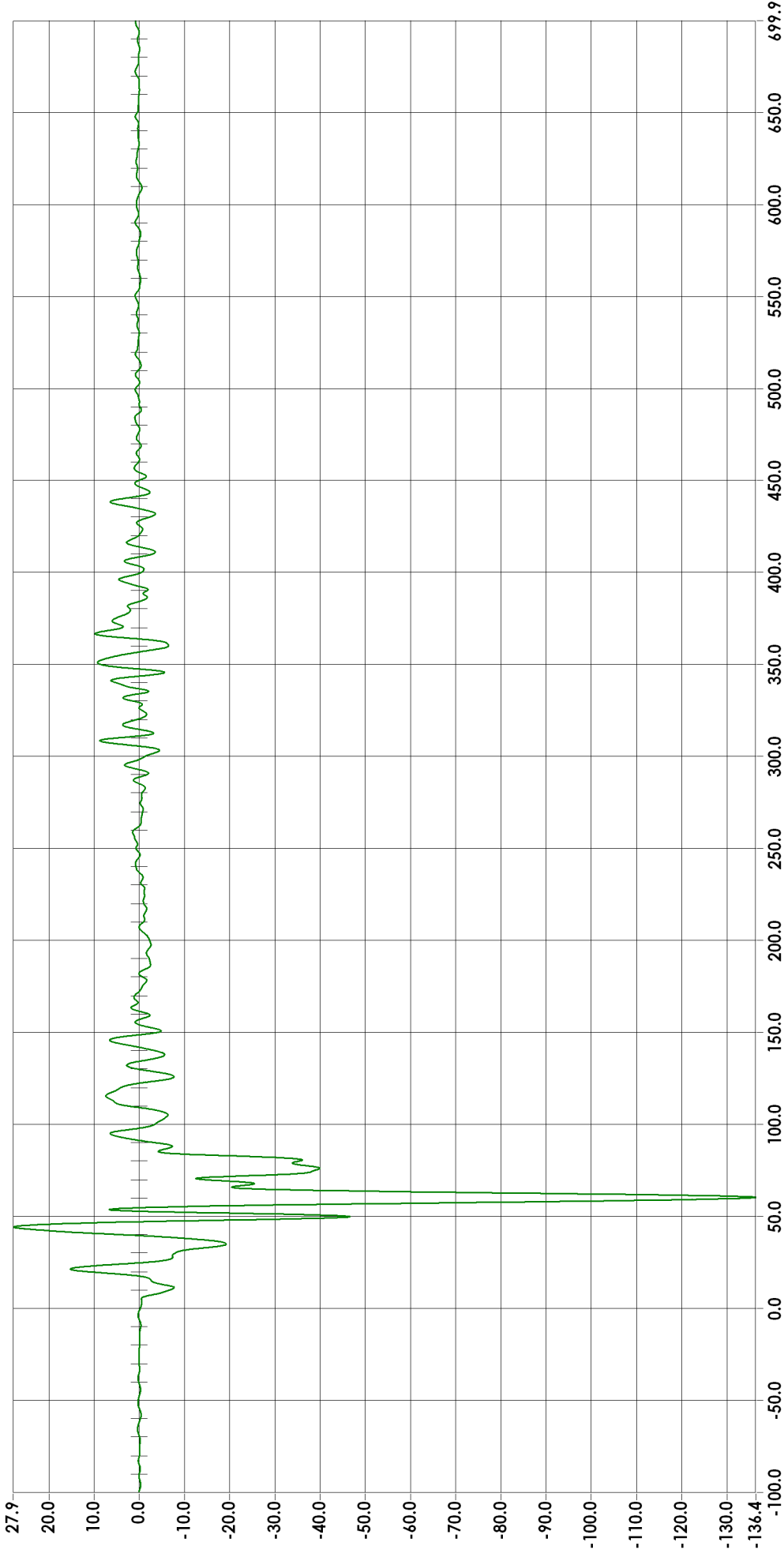
ENDEVCO 7264D-2KTZ-2-360

Serial Number

12096

G's

Brake pedal (x) acceleration XG



Max

27.90

G's

at

44.24

msec

Min

-136.43

G's

at

60.32

msec

Time (msec)

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Test ID

SO1004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

FLIF

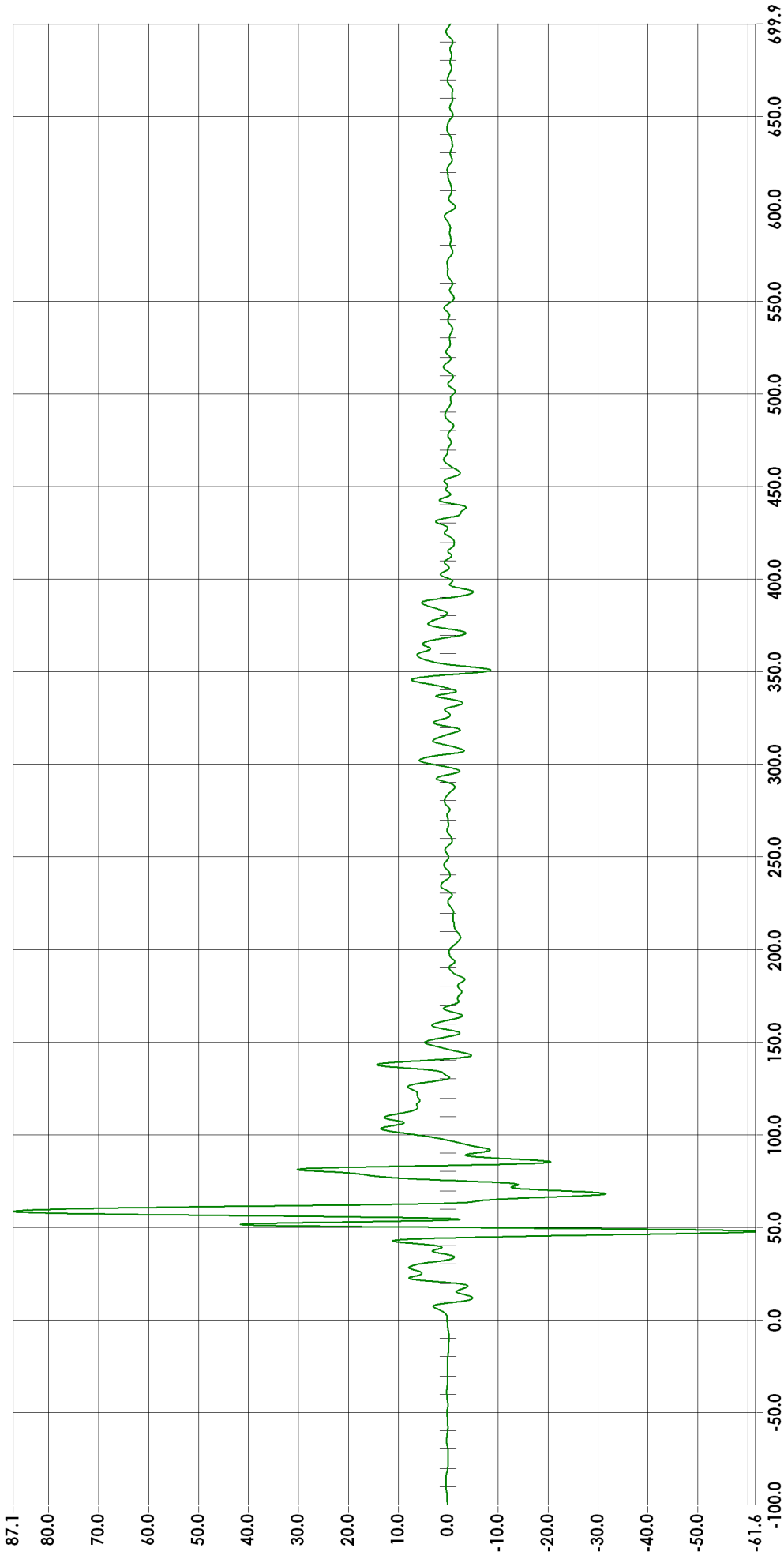
Sensor Info

ENDEVCO 7264D-2KTZ-2-360

Serial Number

12118

Brake pedal (y) acceleration YG



Max	87.12	G's	at	58.56	msec
Min	-61.63	G's	at	47.76	msec

SO1004 Plot 177

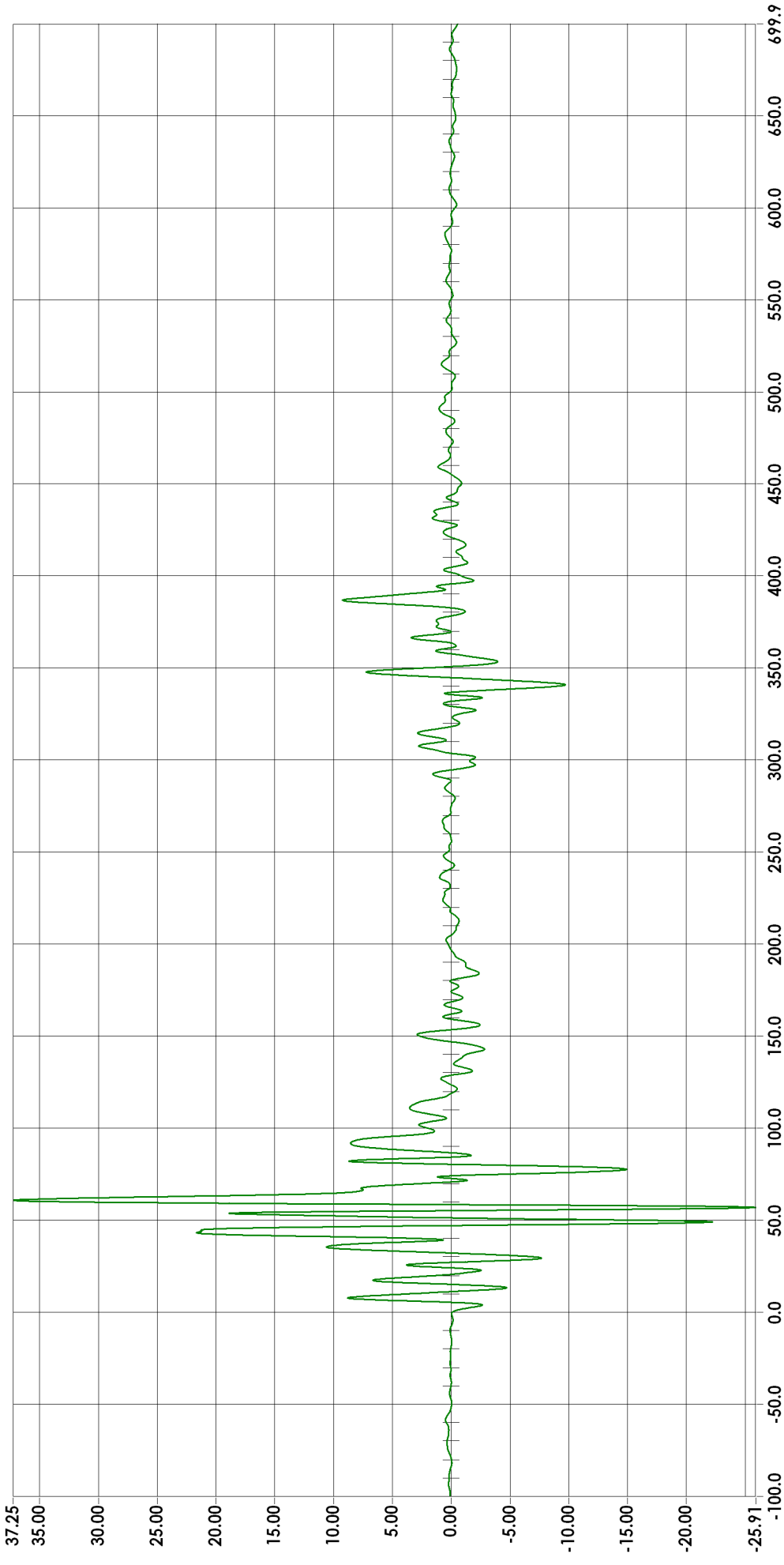
Time (msec)

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Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FLIF
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12111

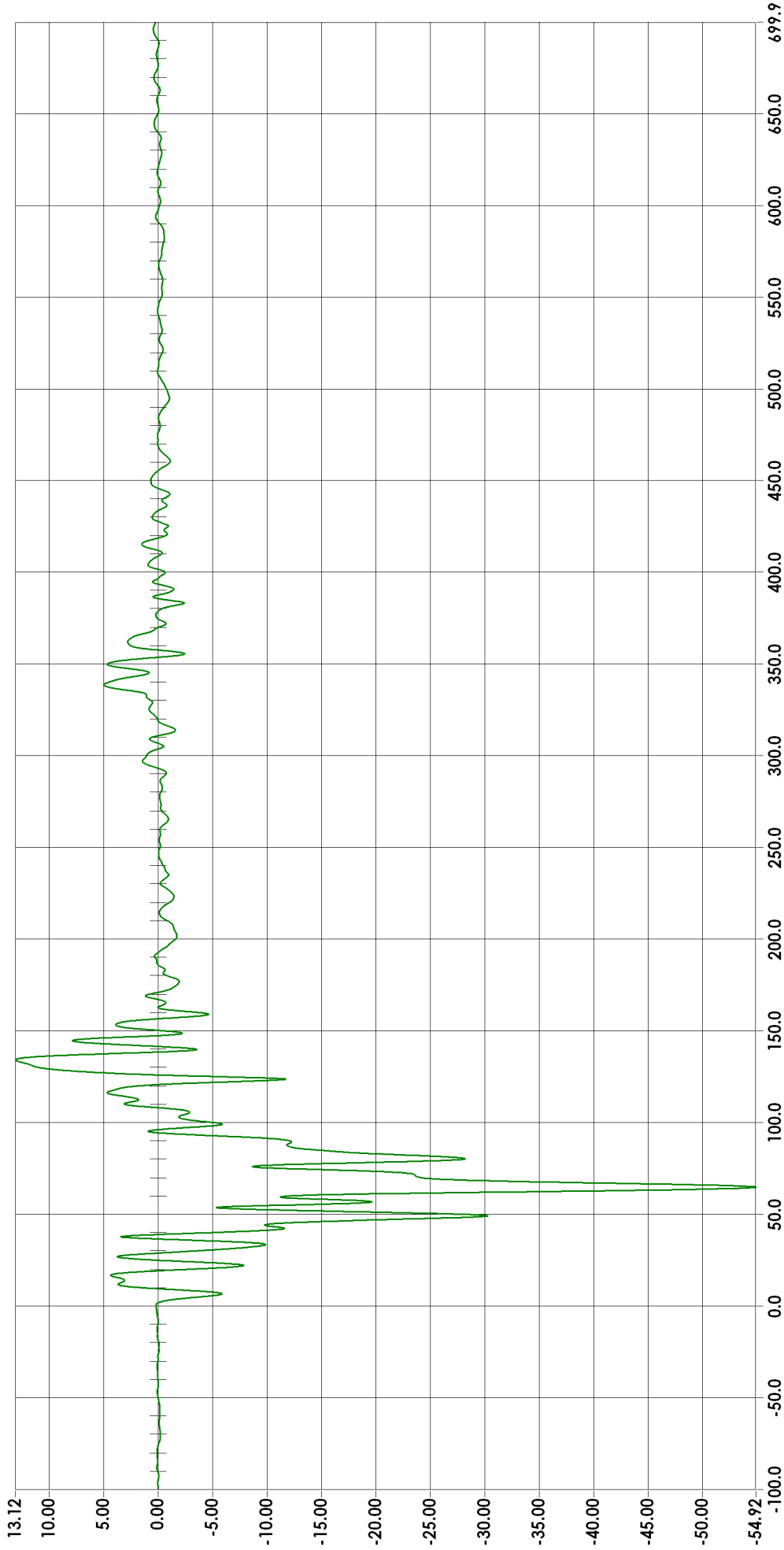
Brake pedal (z) acceleration ZG



Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FLF
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12127



Foot rest (x) acceleration XG



Max	13.12	G's	at	134.16	msec
Min	-54.92	G's	at	64.80	msec

SOI004 Plot 179

Time (msec)

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC60

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

FLIF

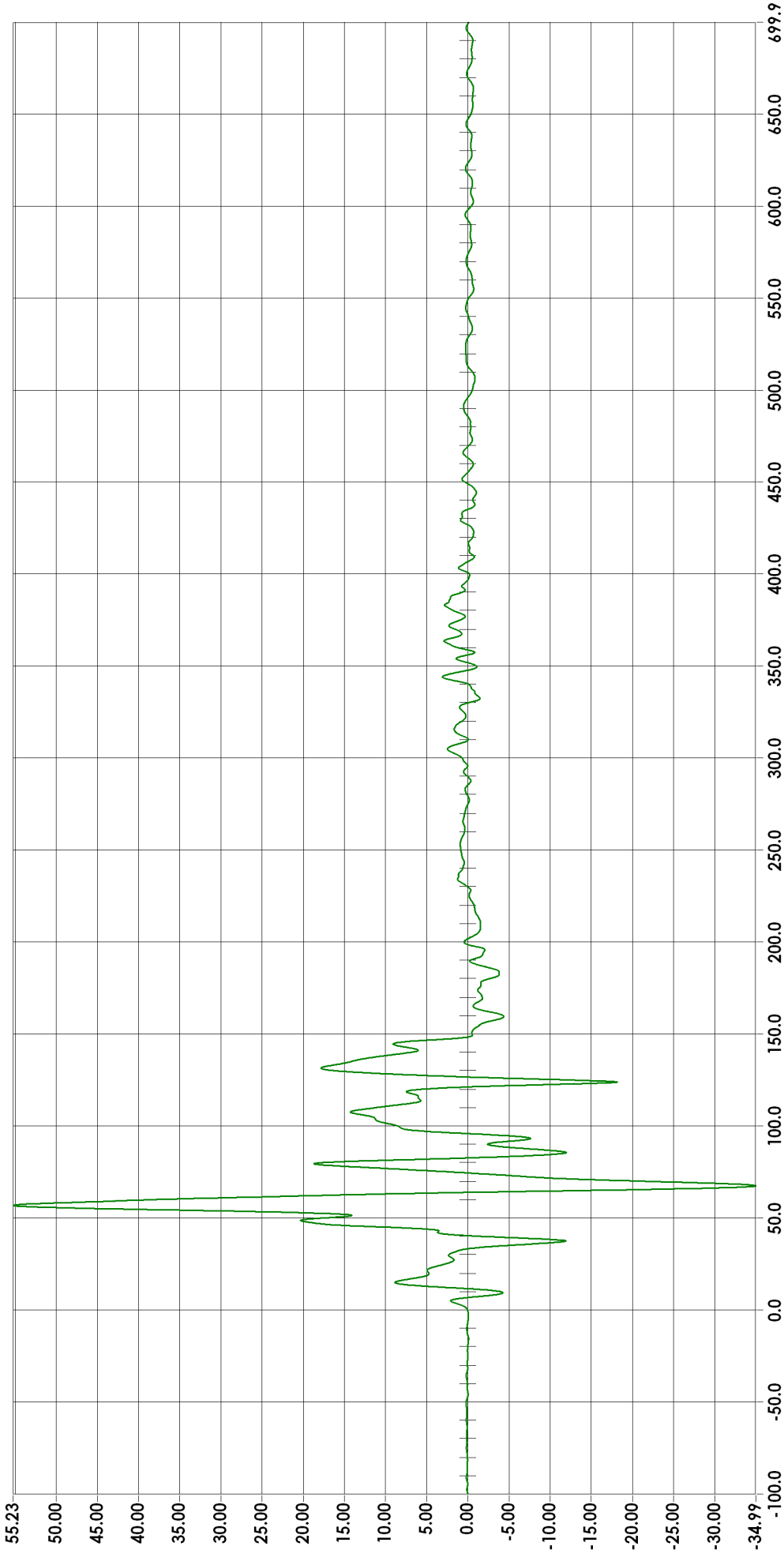
Sensor Info

ENDEVCO 7264D-2KTZ-2-360

Serial Number

12134

Foot rest (y) acceleration YG



Max

55.23

G's

at

56.88

msec

Min

-34.99

G's

at

67.52

msec

SOI004 Plot 180

Neuroscience Research Labs

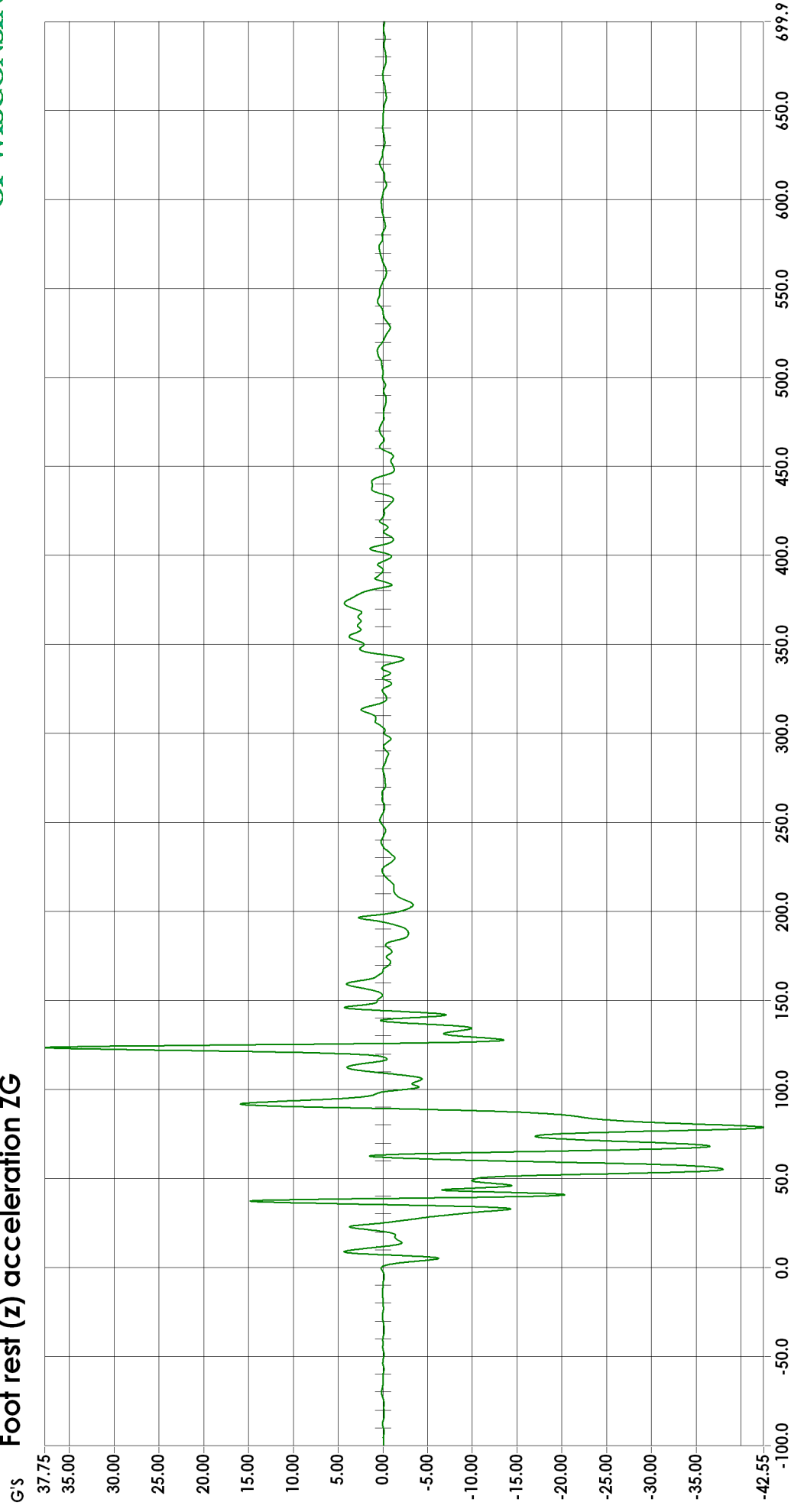
5000 West National Ave

Research 151

Milwaukee, WI 53295

Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	FLIF
		Sensor Info	ENDEVCO 7264D-2KTZ-2-360
		Serial Number	12148

Foot rest (z) acceleration ZG



Time (msec)

Max	37.75	G's	at	123.60	msec
Min	-42.55	G's	at	78.72	msec

SO1004 Plot 181

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC1000

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

KNEE

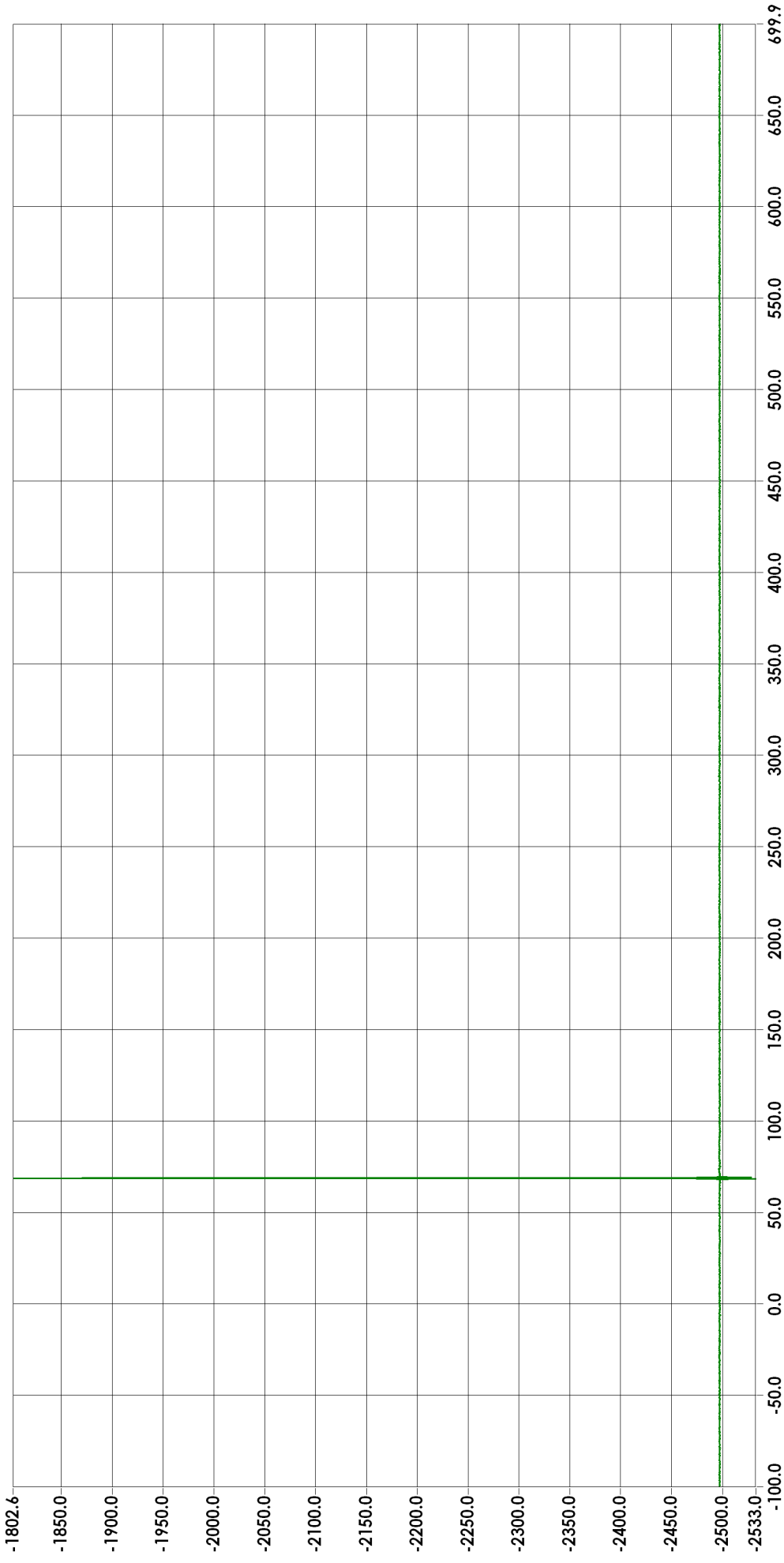
Sensor Info

MCW Contact Switch

Serial Number

MCW Contact Switch 1

Driver left knee center contact switch OT



Time (msec)

Max -1802.57 mV at 68.80 msec
Min -2533.02 mV at 68.40 msec

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Test ID

SOI004

Date

10-19-2010

Description

2010 Toyota Yaris 4-Door Sedan Small Overlap Test,
THOR NT Driver, H3 5th Rear Passenger

Filter

CFC1000

Sampling Rate (Hz)

12500

Number of Points

10000

Pretrigger Points

1250

Sensor Location

KNEE

Sensor Info

MCW Contact Switch

Serial Number

MCW Contact Switch 2

Driver left knee left of center contact switch OT



Max

-4993.78

mV

at

68.40

msec

Min

-5788.93

mV

at

68.80

msec

SOI004 Plot 183

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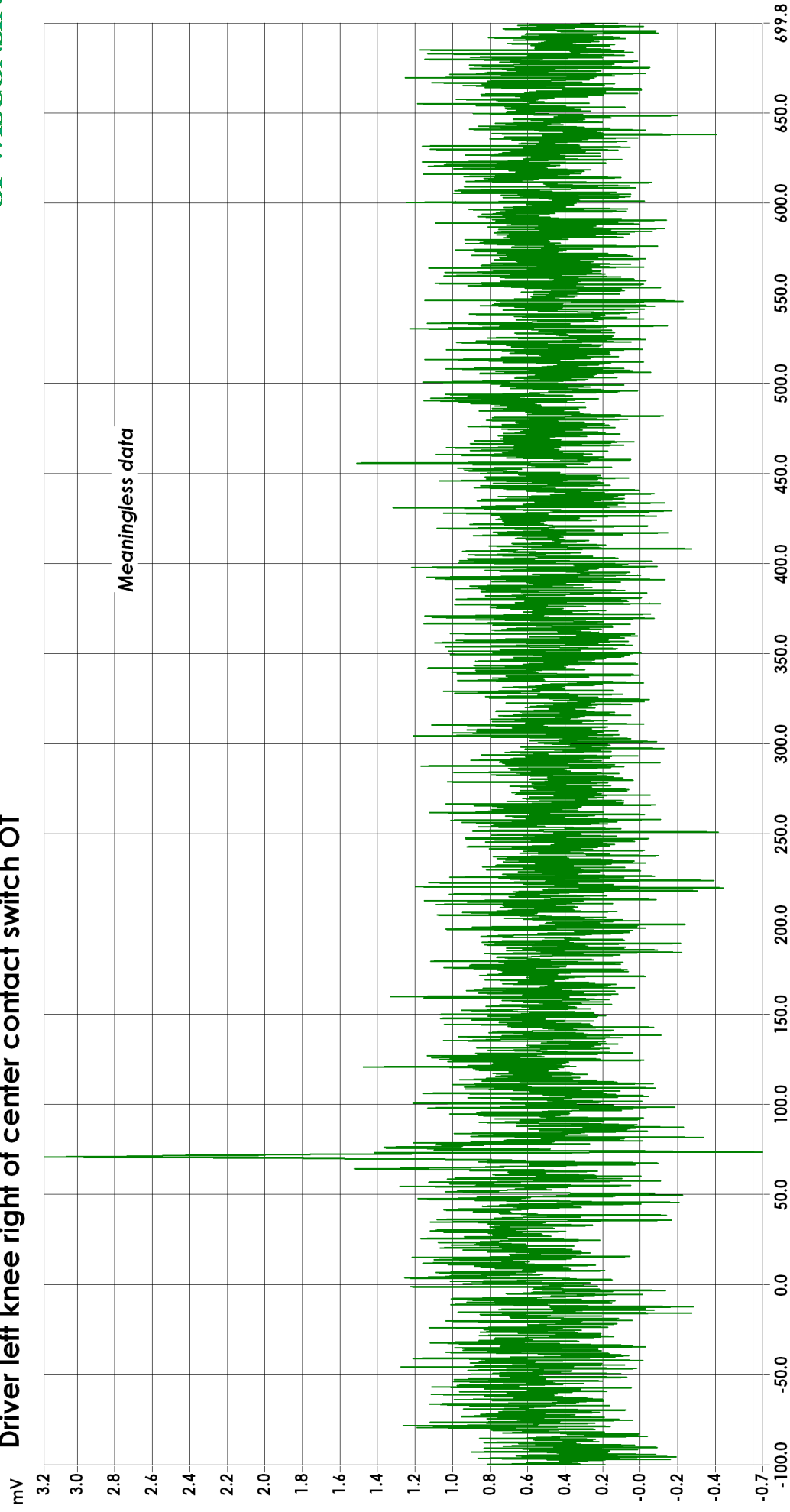
Research 151

Milwaukee, WI 53295



Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	KNEE
		Sensor Info	MCW Contact Switch
		Serial Number	MCW Contact Switch 3

Driver left knee right of center contact switch OT



Time (msec)

Max	3.18	mV	at	70.72	msec
Min	-0.65	mV	at	73.52	msec

SOI004 Plot 184

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretigger Points	1250
		Sensor Location	KNEI
		Sensor Info	MCW Contact Switch
		Serial Number	MCW Contact Switch 4

Passenger left knee center contact switch OT



Time (msec)

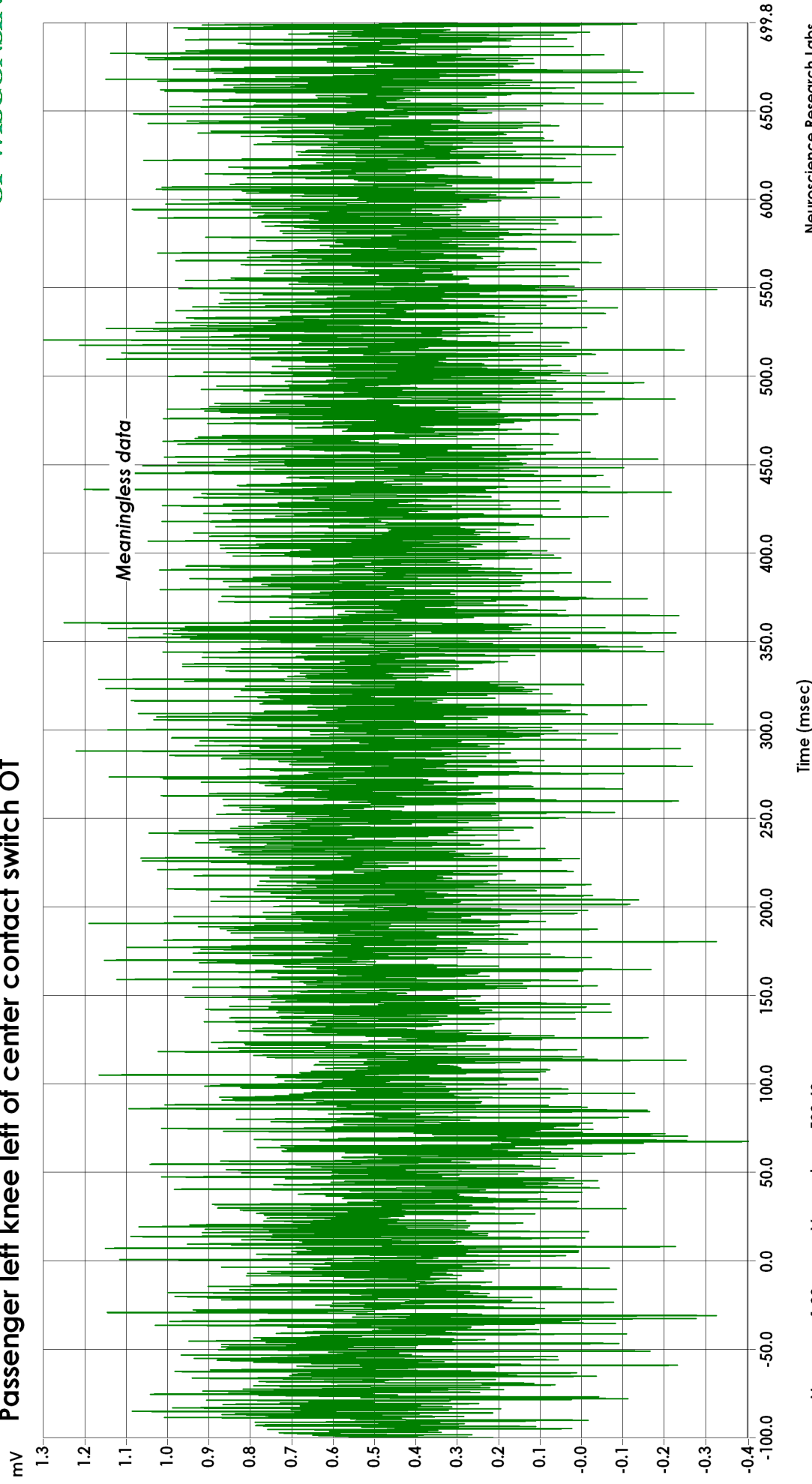
Max	-2746.08	mV	at	110.64	msec
Min	-5086.13	mV	at	206.32	msec

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SOI004 Plot 185

Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	KNEI
		Sensor Info	MCW Contact Switch
		Serial Number	MCW Contact Switch 5

Passenger left knee left of center contact switch OT



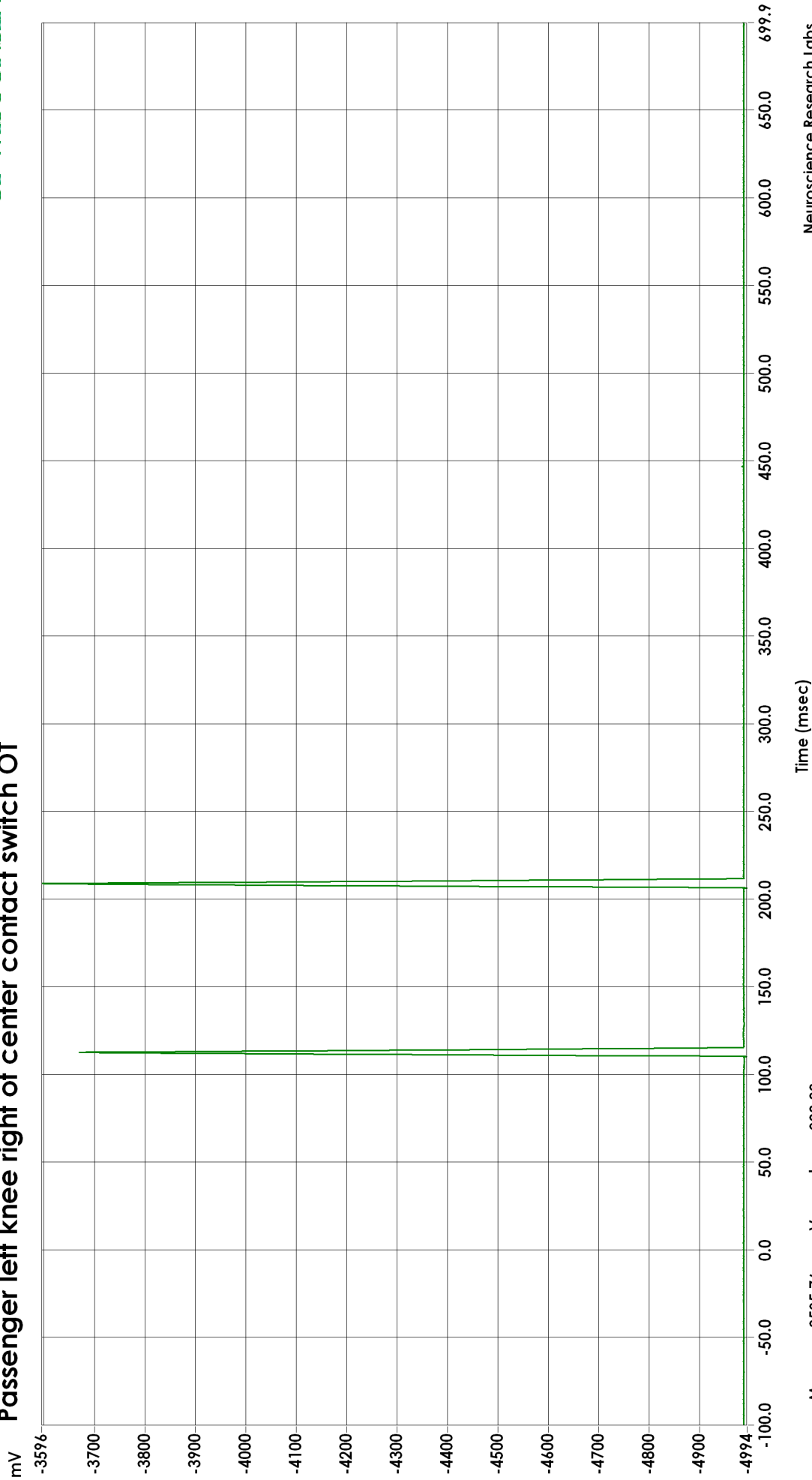
Max	1.30	mV	at	520.40	msec
Min	-0.40	mV	at	67.36	msec

SOI004 Plot 186



Test ID	SO1004	Filter	CFC1000	Sensor Location	KNEE
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	MCW Contact Switch
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	MCW Contact Switch 6

Passenger left knee right of center contact switch OT



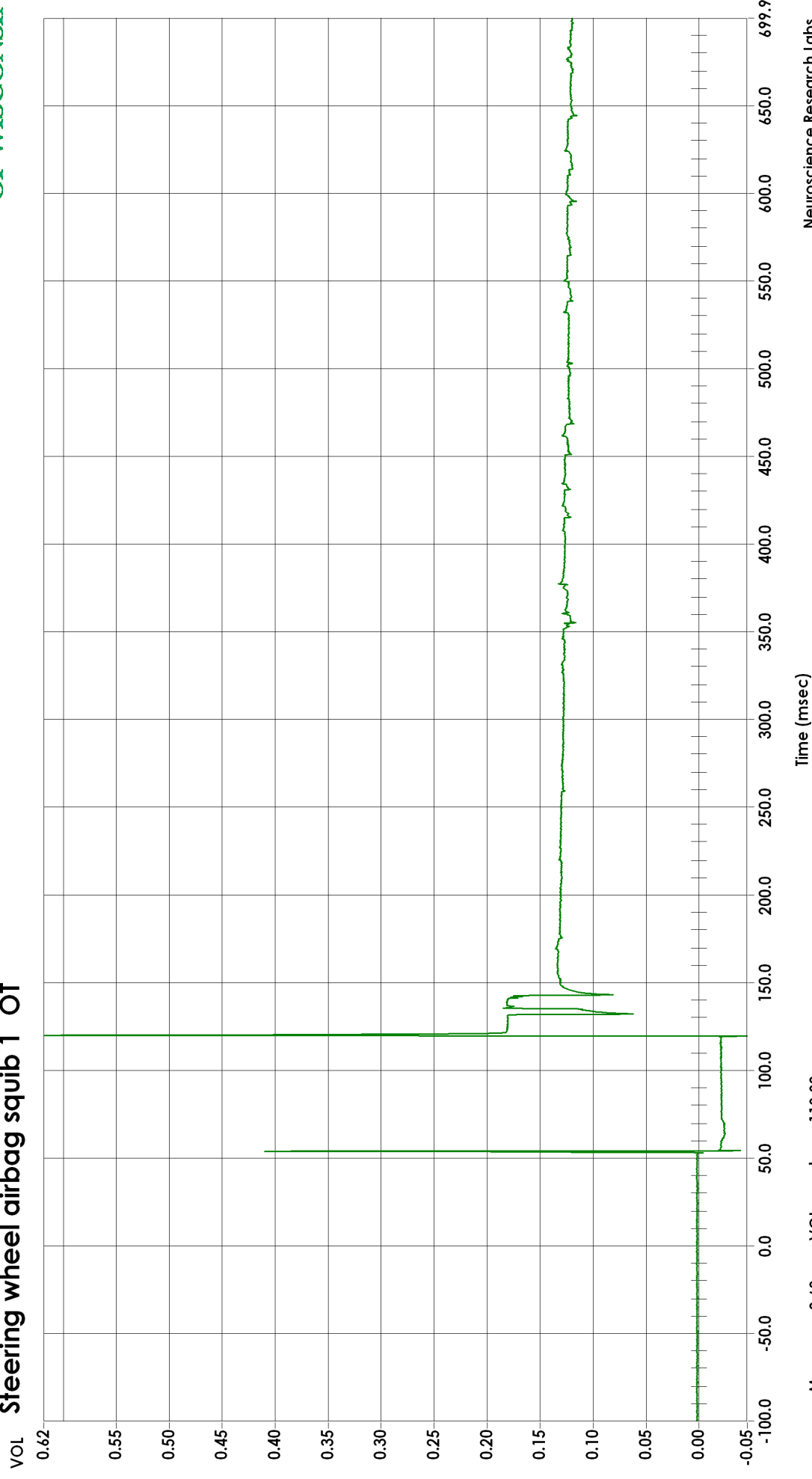
Max	-3595.76	mV	at	208.88	msec
Min	-4994.03	mV	at	206.40	msec

SO1004 Plot 187

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Test ID	SOI004	Filter	CFC1000
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	STCL
		Sensor Info	MCW Airbag Sensor
		Serial Number	Airbag sensor 1

Steering wheel airbag squib 1 OT

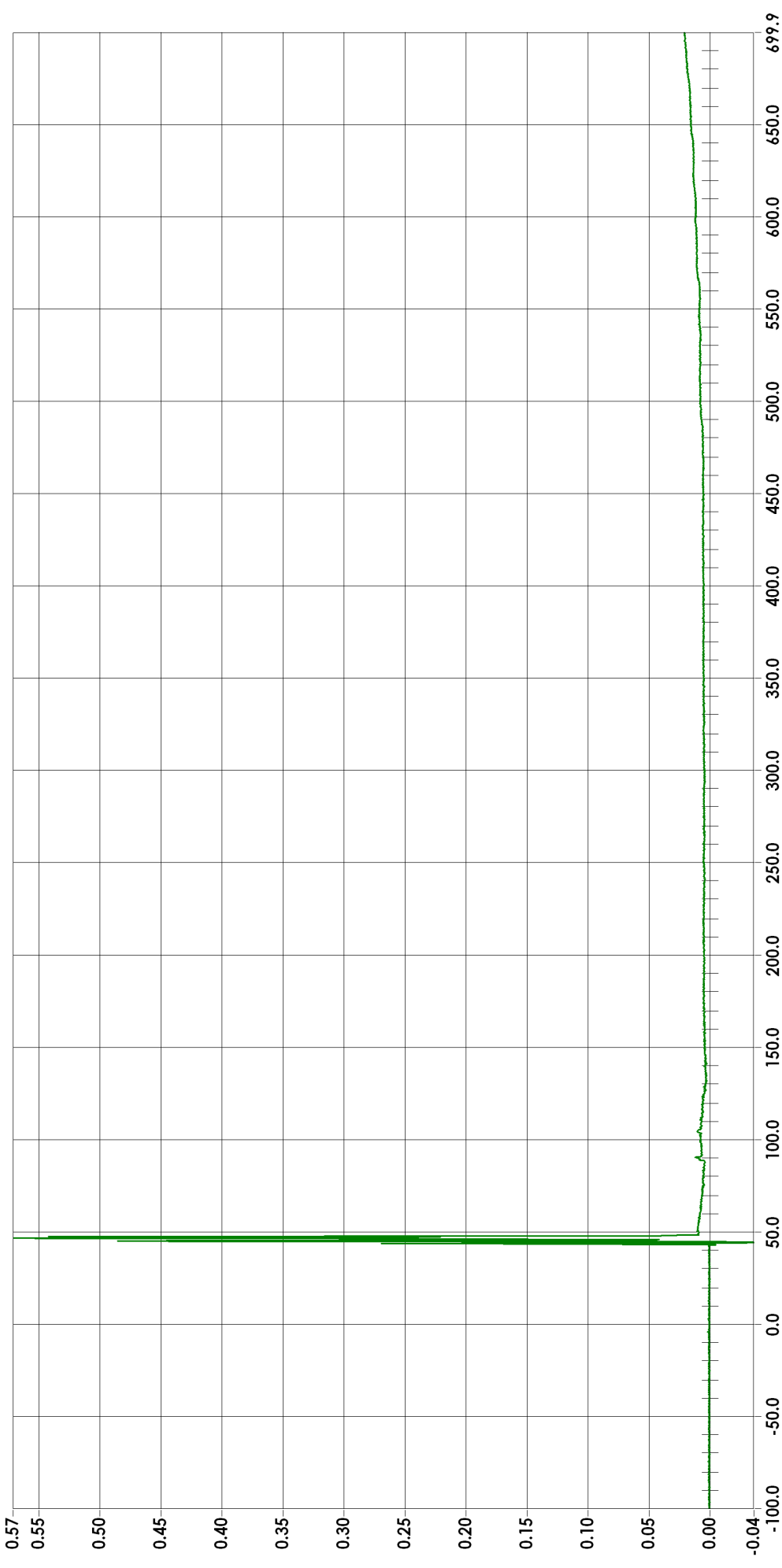


Max	0.62	VOL	at	119.92	msec
Min	-0.05	VOL	at	119.52	msec

SOI004 Plot 188

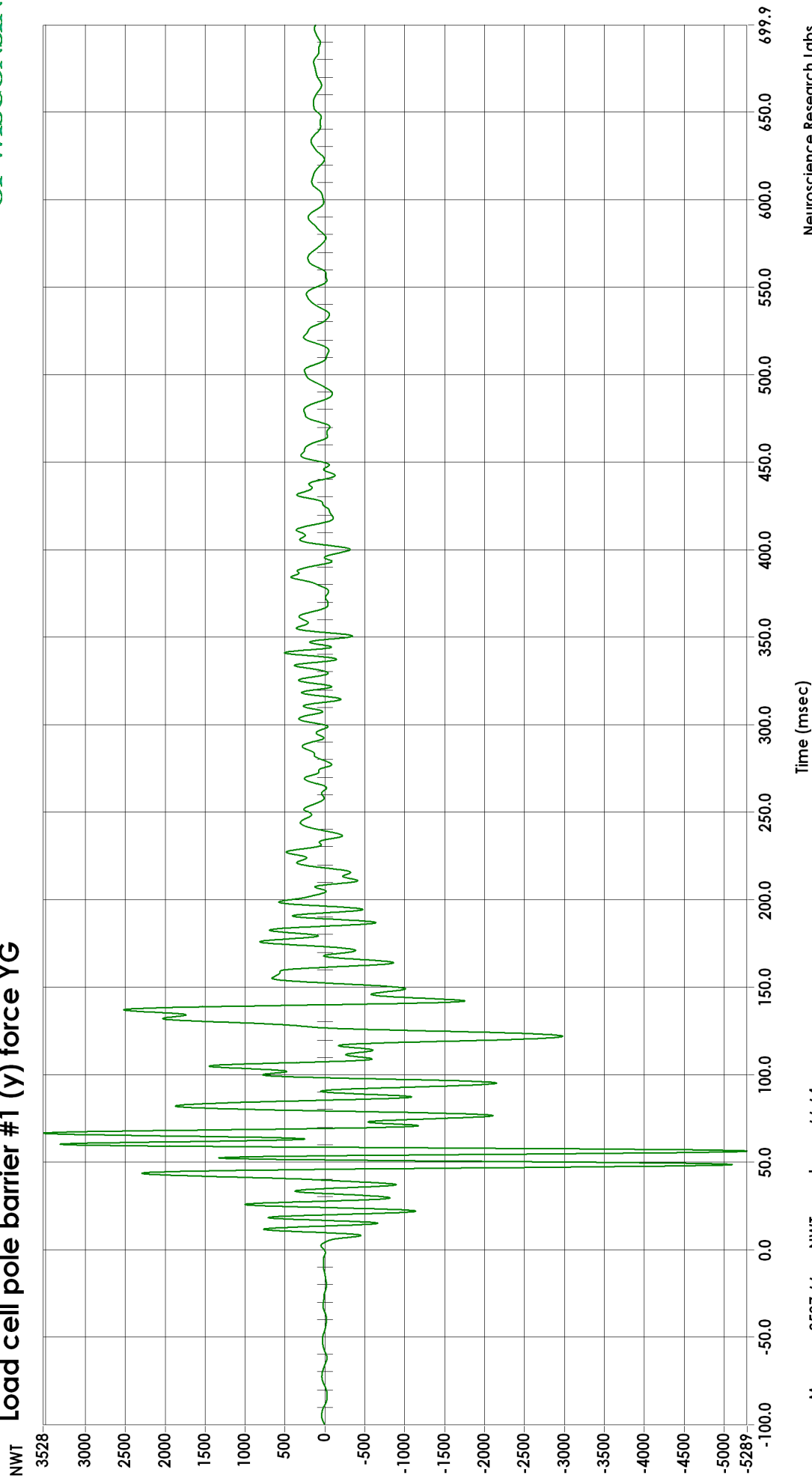
Test ID	SOI004	Filter	CFC1000	Sensor Location	STCL
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	MCW Airbag Sensor
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	Airbag sensor 2
		Prefrigger Points	1250		

Steering wheel airbag squib 2 OT



Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	POLE
		Sensor Info	Interface 1220ACK-50K-B
		Serial Number	1220ACK-50K-B_332407

Load cell pole barrier #1 (y) force YG

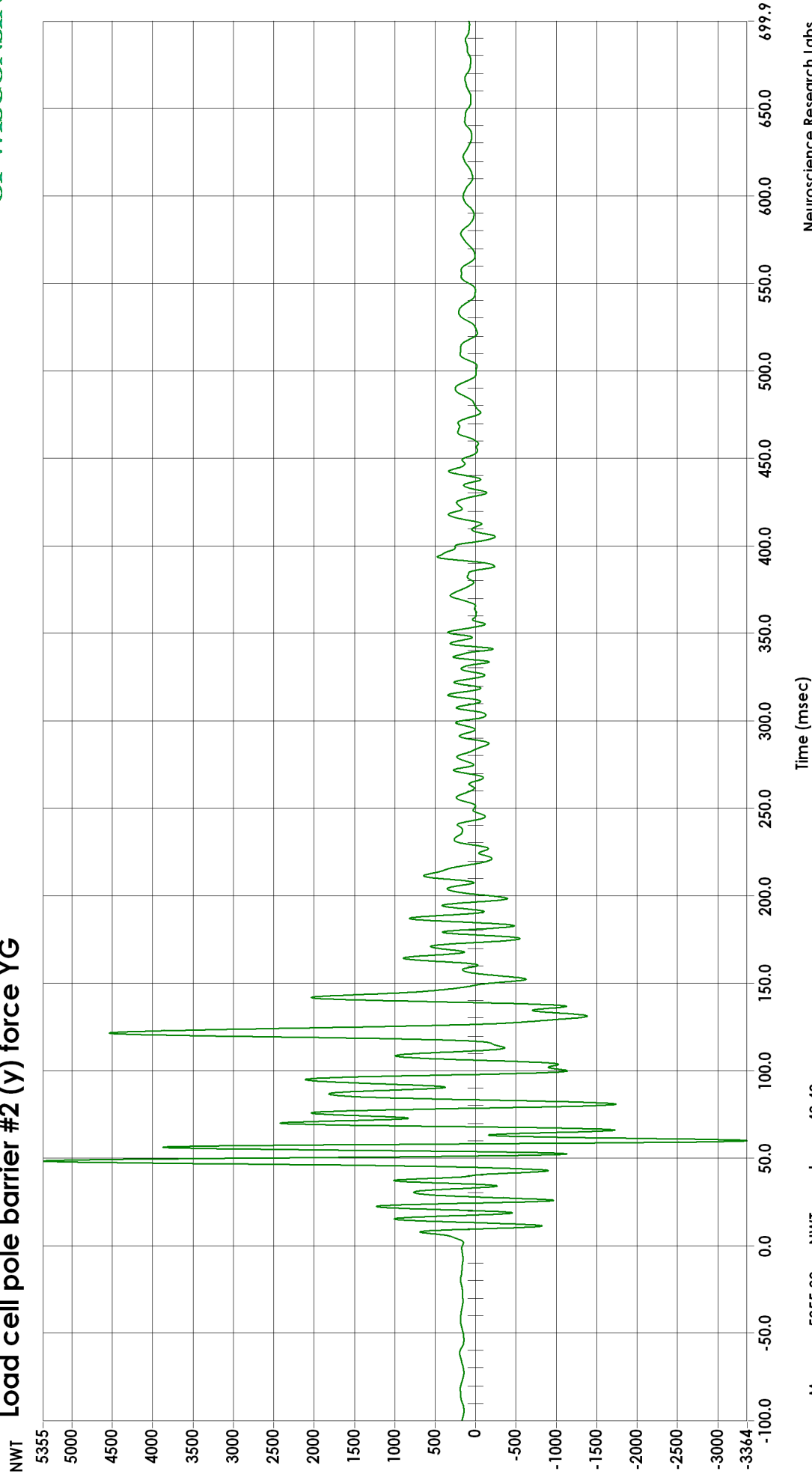


Max	3527.66	NWT	at	66.64	msec
Min	-5288.94	NWT	at	56.32	msec

SOI004 Plot 190

Test ID	SO1004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	POLE
		Sensor Info	Interface 1220ACK-50K-B
		Serial Number	1220ACK-50K-B_352865

Load cell pole barrier #2 (y) force YG



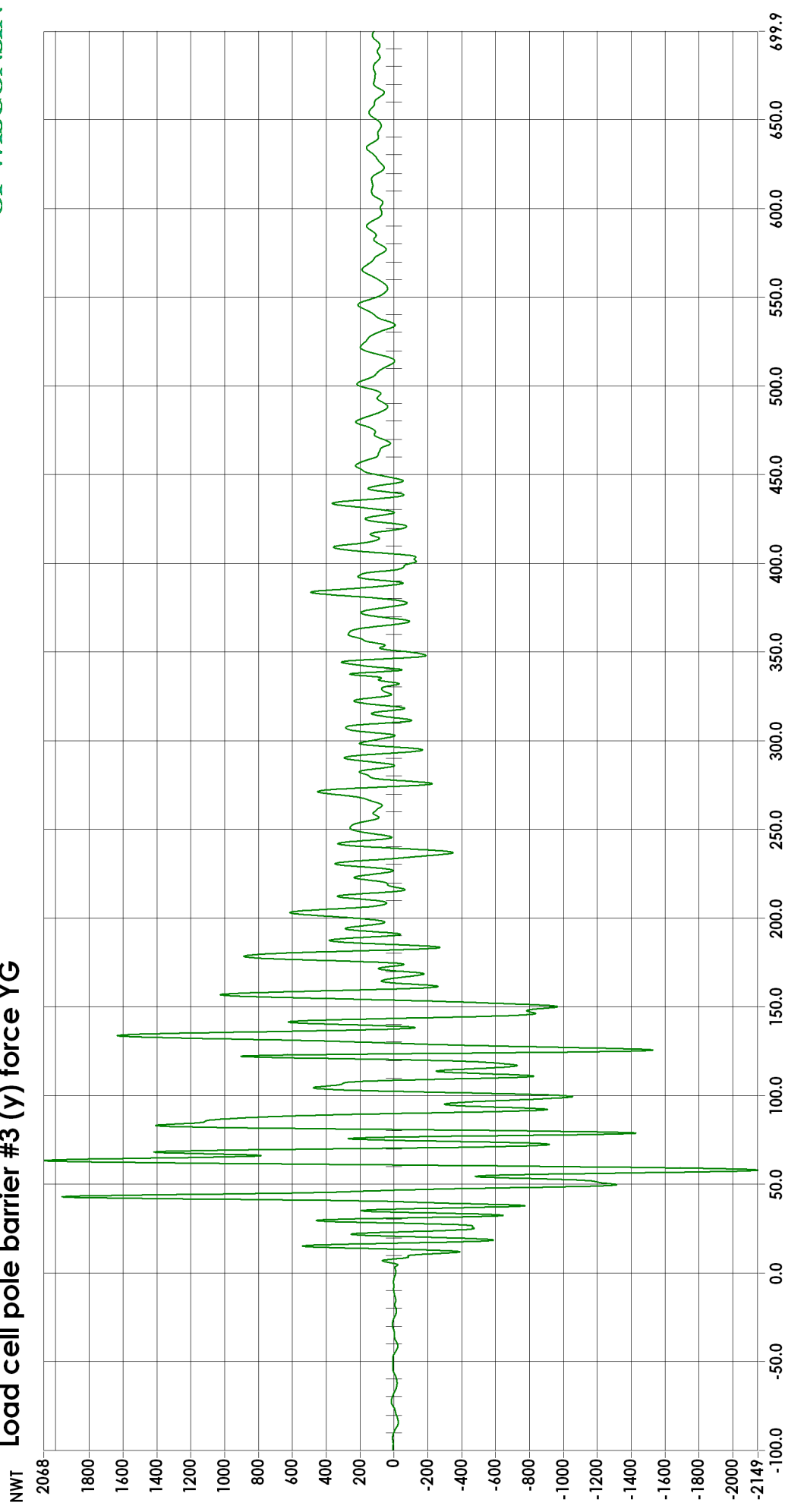
Max	5355.32	NWT	at	48.40	msec
Min	-3364.01	NWT	at	60.08	msec

SO1004 Plot 191



Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefrigger Points	1250
		Sensor Location	POLE
		Sensor Info	Interface 1220ACK-50K-B
		Serial Number	1220ACK-50K-B_332420

Load cell pole barrier #3 (y) force YG



Max	2067.52	NWT	at	63.36	msec
Min	-2148.88	NWT	at	58.00	msec

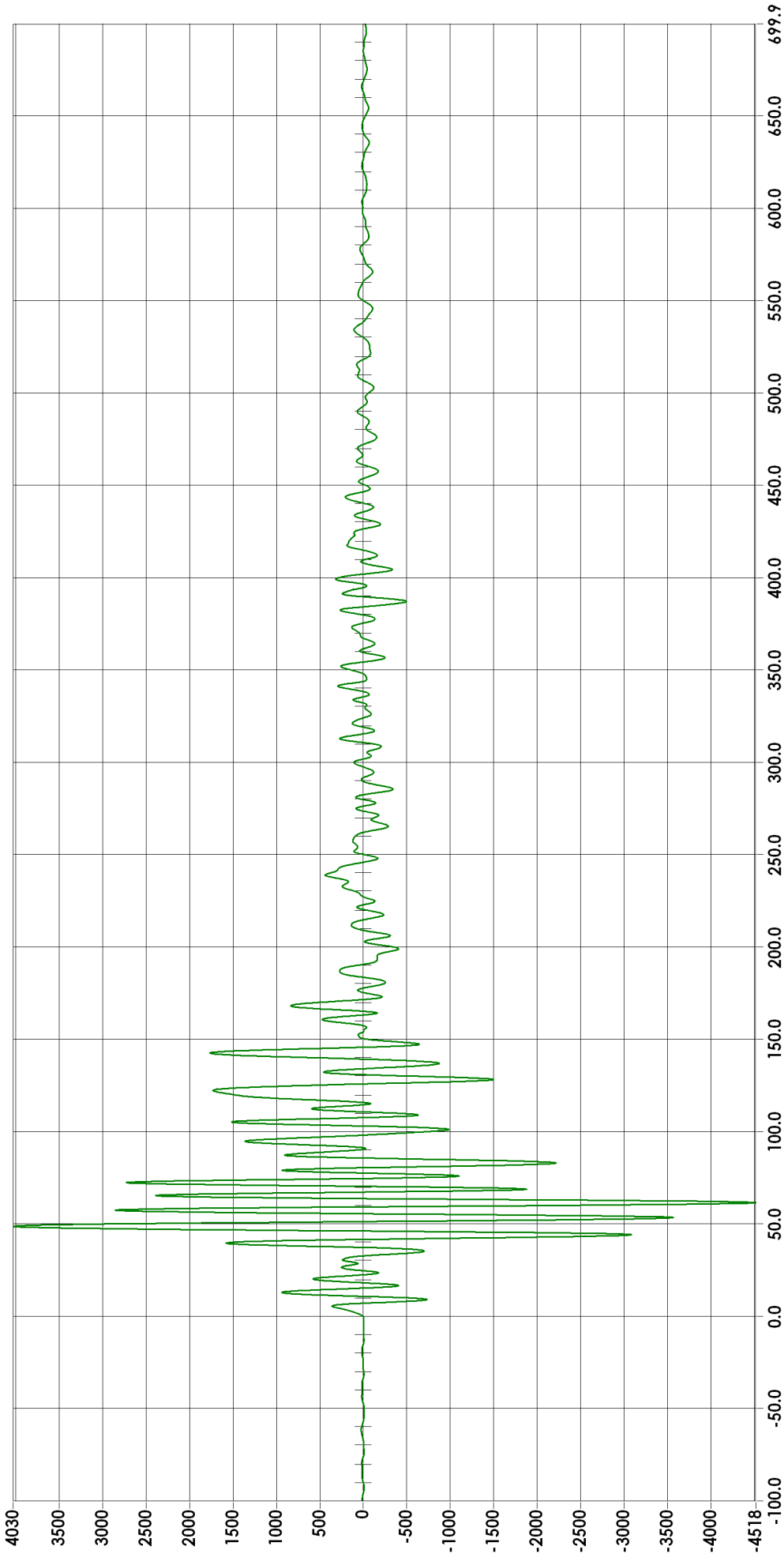
SOI004 Plot 192

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Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Prefilter Points	1250
		Sensor Location	POLE
		Sensor Info	Interface 1220ACK-50K-B
		Serial Number	1220ACK-50K-B_332400

Load cell pole barrier #4 (y) force YG



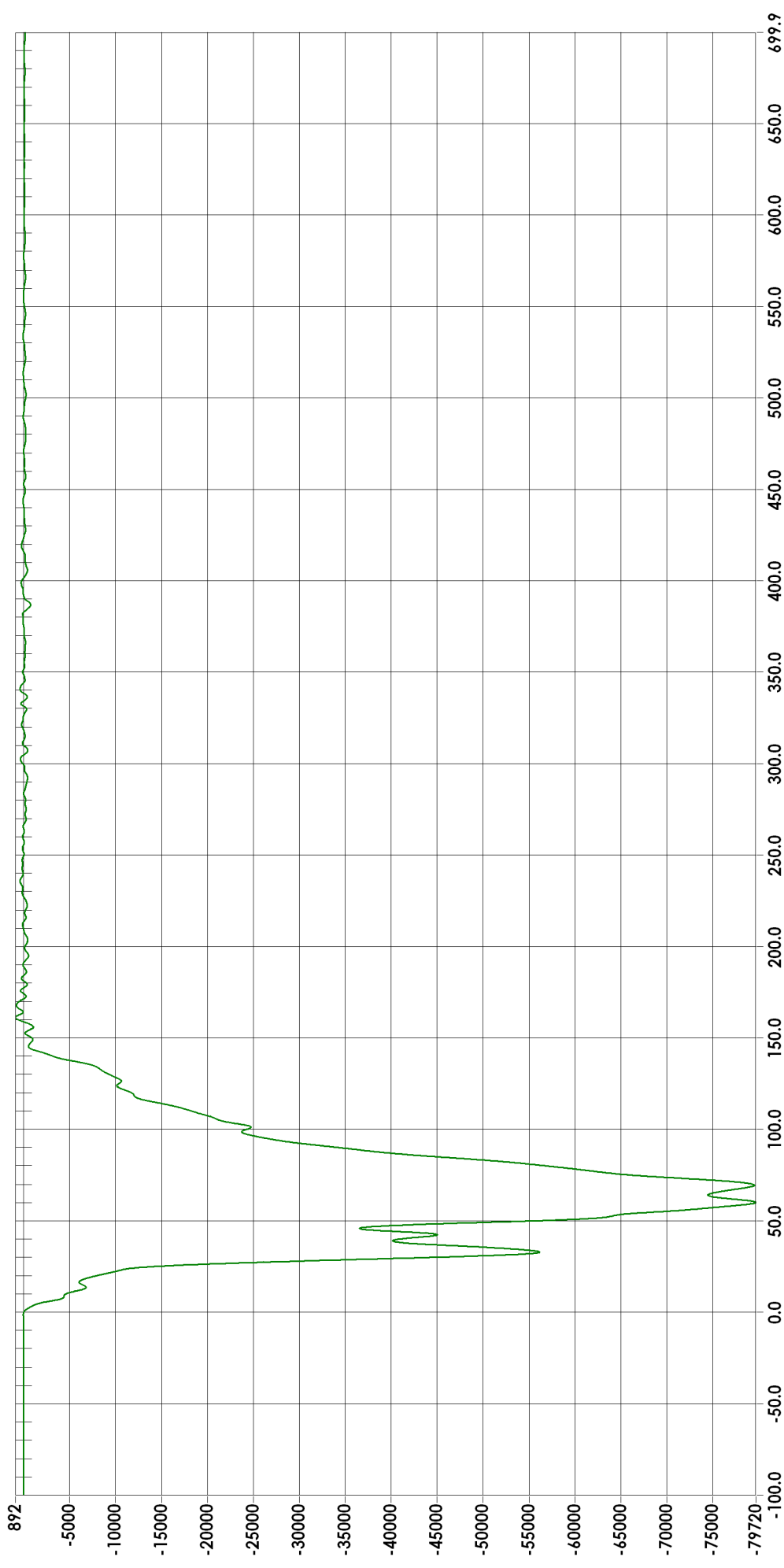
Time (msec)

Max	4029.56	NWT	at	48.72	msec
Min	-4518.47	NWT	at	61.52	msec

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Test ID	SOI004	Filter	CFC60	Sensor Location	POLE
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Interface 1220ACK-50K-B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1220ACK-50K-B_330824
		Pretrigger Points	1250		

NWT Load cell pole barrier #5 (y) force YG



Time (msec)

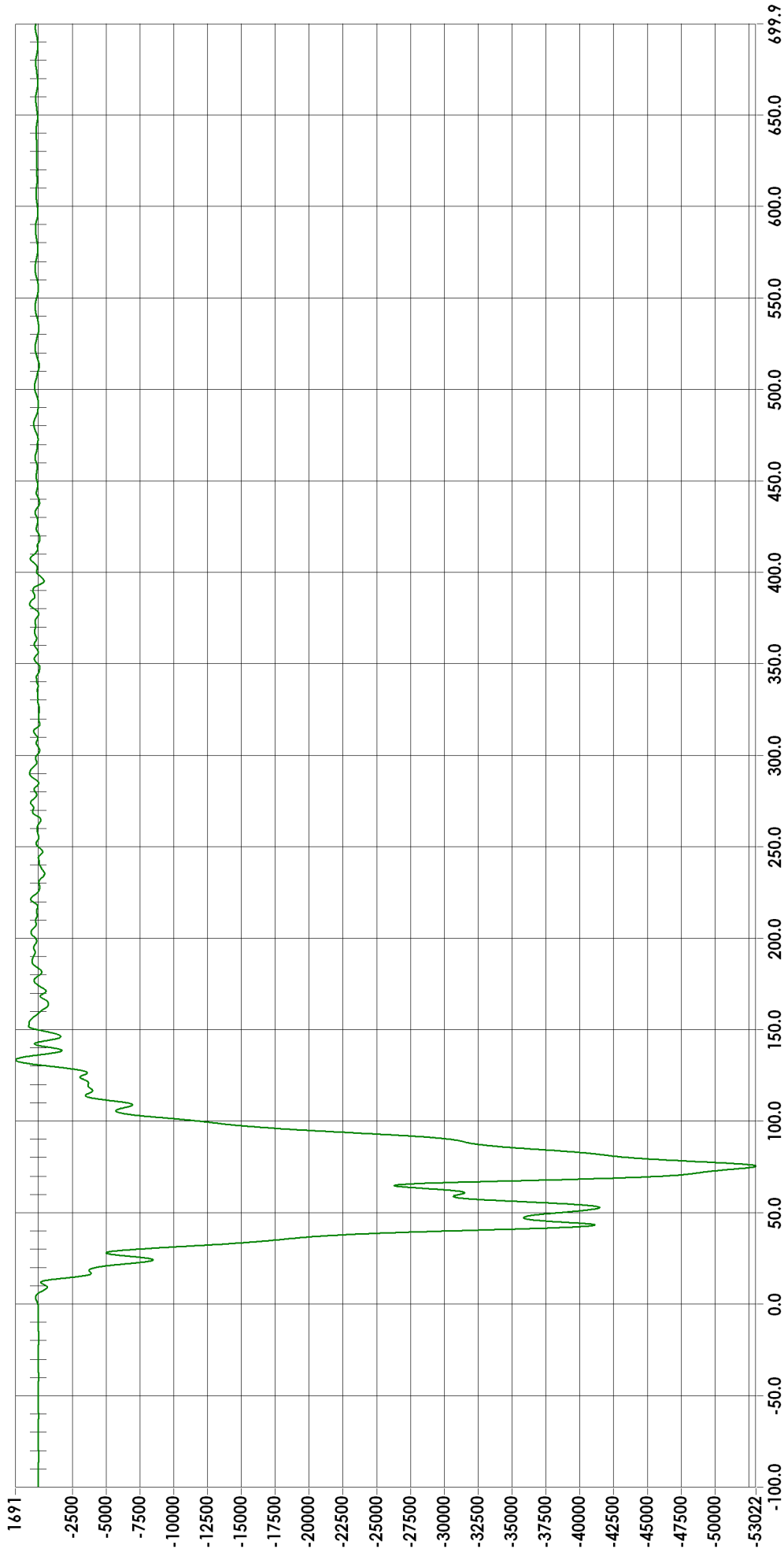
Max	892.30	NWT	at	161.20	msec
Min	-79720.19	NWT	at	60.00	msec

SOI004 Plot 194

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Test ID	SOI004	Filter	CFC60
Date	10-19-2010	Sampling Rate (Hz)	12500
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000
		Pretrigger Points	1250
		Sensor Location	POLE
		Sensor Info	Interface 1220ACK-50K-B
		Serial Number	1220ACK-50K-B_334238

NWT Load cell pole barrier #6 (y) force YG



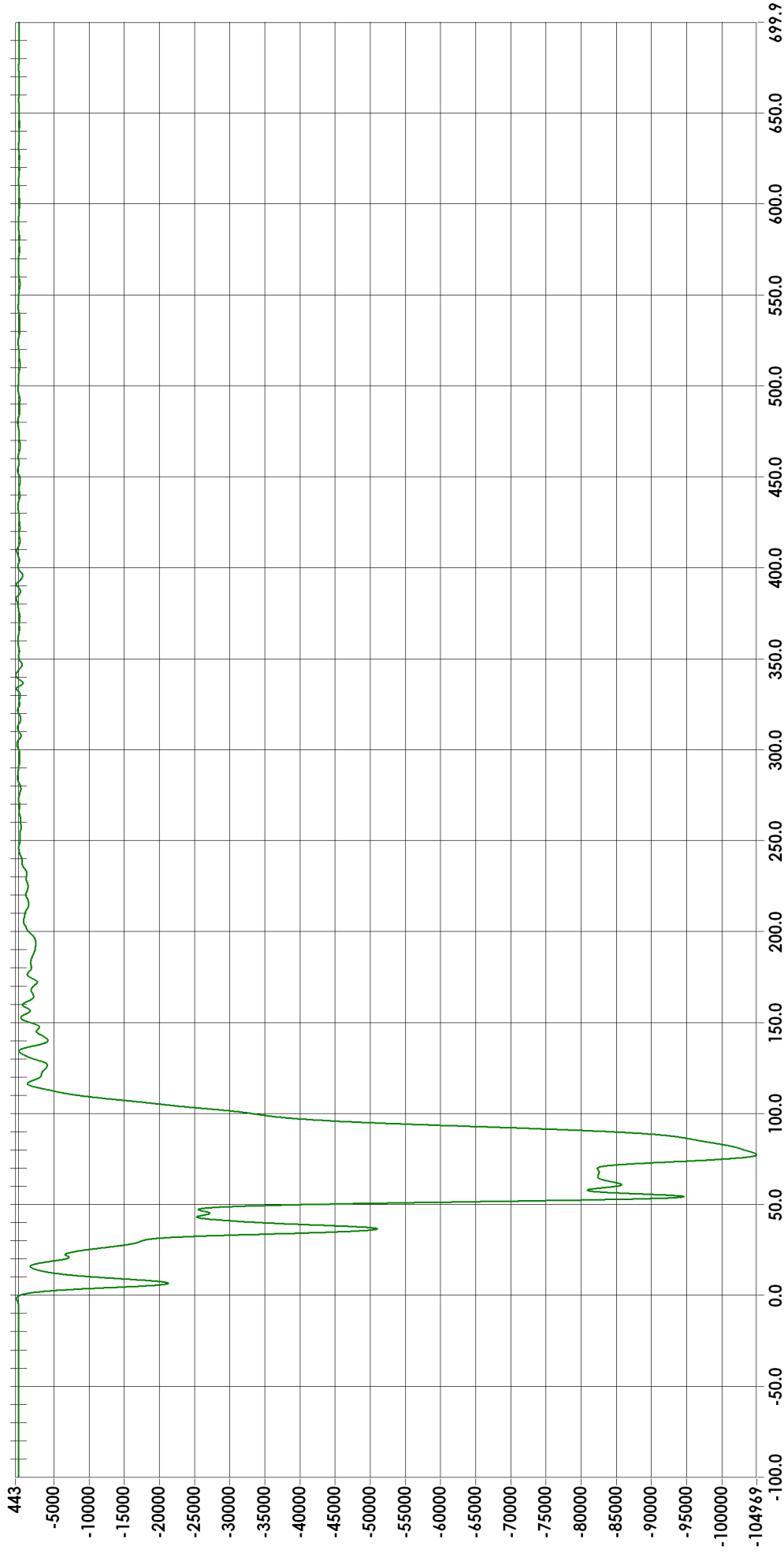
Time (msec)

Max	1690.77	NWT	at	133.44	msec
Min	-53022.48	NWT	at	75.44	msec

SOI004 Plot 195

Test ID	SO1004	Filter	CFC60	Sensor Location	POLE
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Interface 1220ACK-50K-B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1220ACK-50K-B_330834
		Prefrigger Points	1250		

NWT Load cell pole barrier #7 (y) force YG



Time (msec)

Max	442.79	NWT	at	341.12	msec
Min	-104968.83	NWT	at	77.36	msec

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Test ID	SOI004	Filter	CFC60	Sensor Location	POLE
Date	10-19-2010	Sampling Rate (Hz)	12500	Sensor Info	Interface 1220ACK-50K-B
Description	2010 Toyota Yaris 4-Door Sedan Small Overlap Test, THOR NT Driver, H3 5th Rear Passenger	Number of Points	10000	Serial Number	1220ACK-50K-B_332403
		Pretrigger Points	1250		

NWT Load cell pole barrier #8 (y) force YG



Time (msec)

Max	757.46	NWT	at	165.84	msec
Min	-152048.42	NWT	at	56.96	msec

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