Service Bulletin

File in Section: -
Bulletin No.: 16-NA-212
Date: July, 2016

INFORMATION

Subject: **A New Way to Look at NOx Sensor Readings and Exhaust Temperature During a DPF Regeneration or a Reductant Fluid Quality Test**

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Express	2014	2016			6.6L (LML, LGH)	
	Silverado						
GMC	Savana						
	Sierra HD						

Involved Region or Country	North America and N.A. Export Regions

Introduction

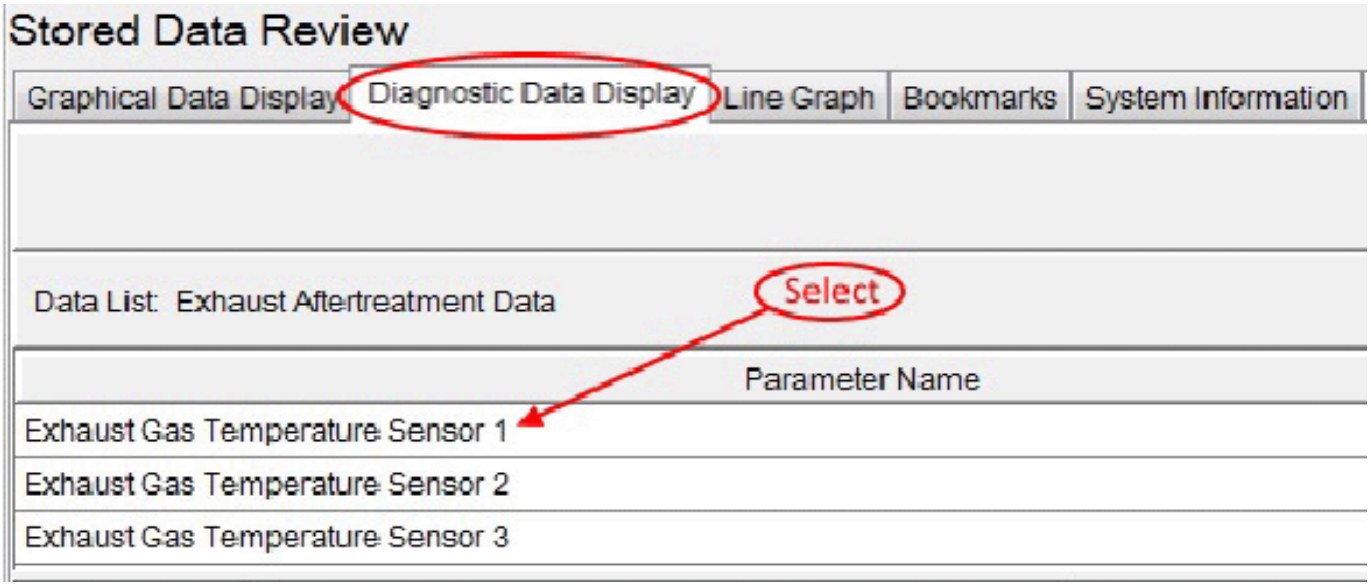
The following procedure is to aid in graphing NOx sensor readings and temperature sensor readings using the GDS2.

Information for the temperatures and NOx sensors can be pulled from the DPF Service Regeneration and the Reductant Fluid Quality Test procedures from session files or stored data in GDS2.

Suggested Procedure for Graphing the DPF Service Regeneration Temperatures

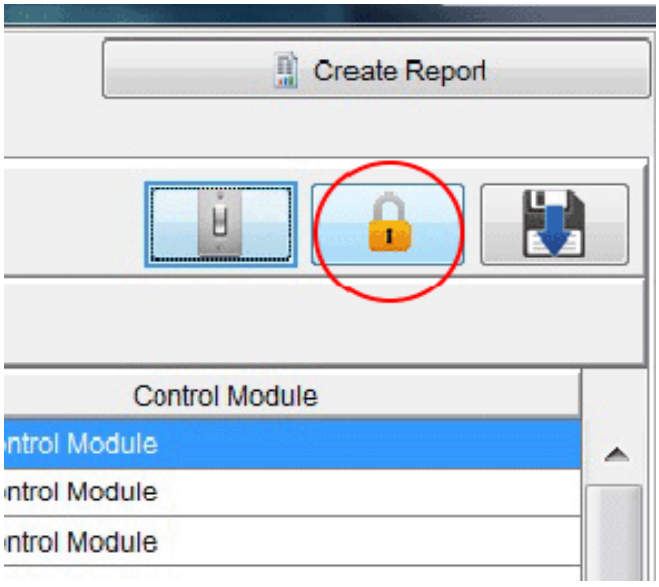
Locate the DPF Service Regeneration in the Stored Data:

1. Select the Review Tab.



4526869

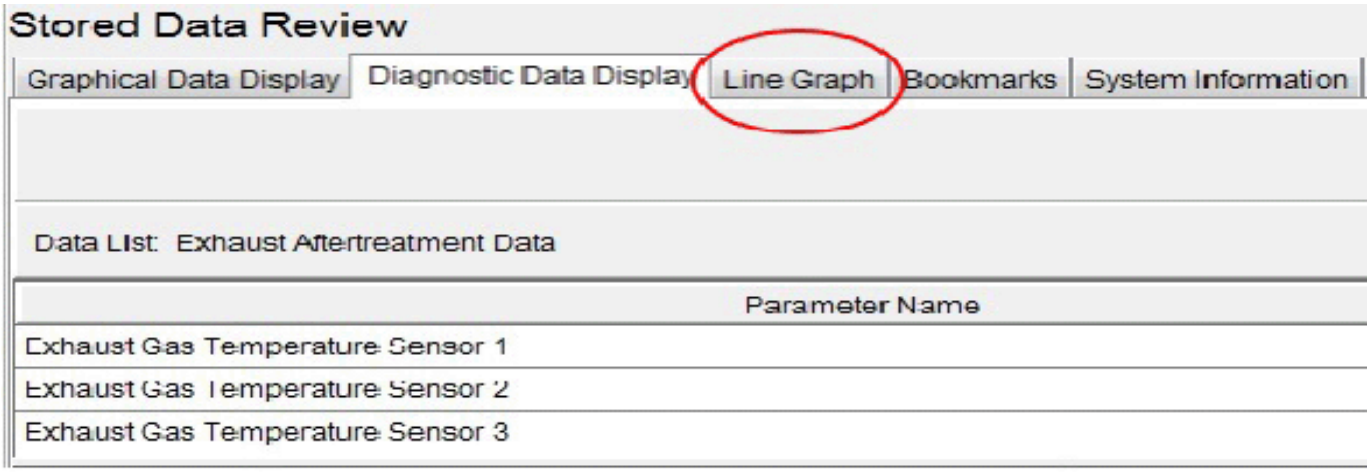
2. Select the Diagnostic Data Display tab.
3. Select the Exhaust Gas Temperature Sensor 1.



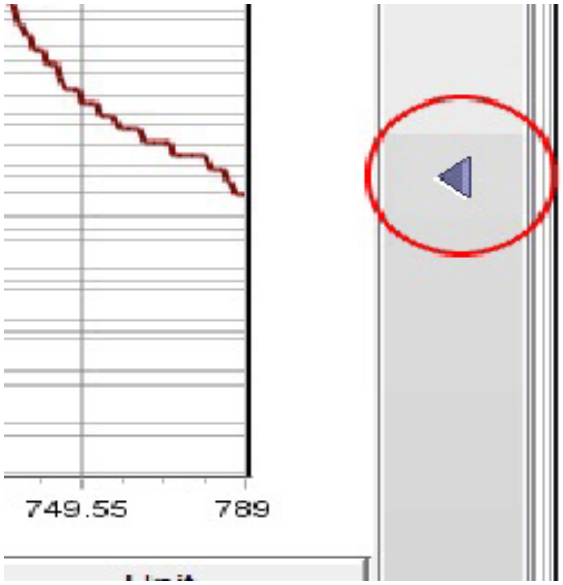
4526889

Note: The LOCK PARAMETER BUTTONS must be selected after each parameter has been selected to be graphed.

4. Select the Lock Parameter button located at the upper right side of display.
5. Repeat the steps above to add the Exhaust Gas Temperature Sensor 2, 3 and 4.
6. Select the DPF Soot Accumulation.



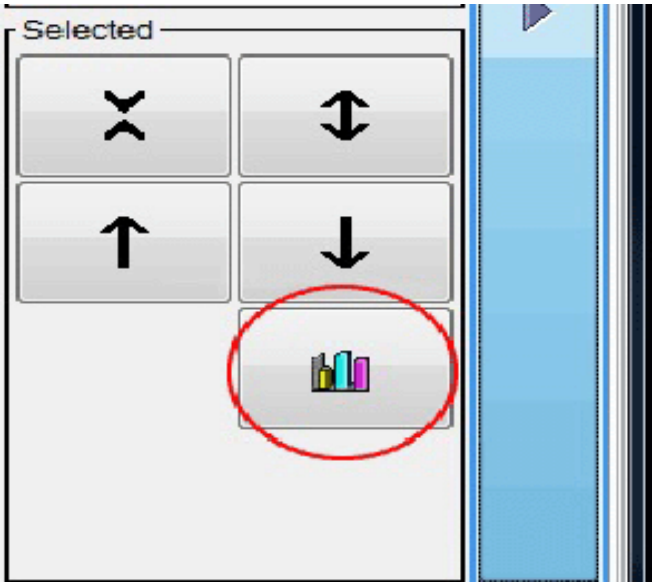
7. Select the Line Graph.



4526913

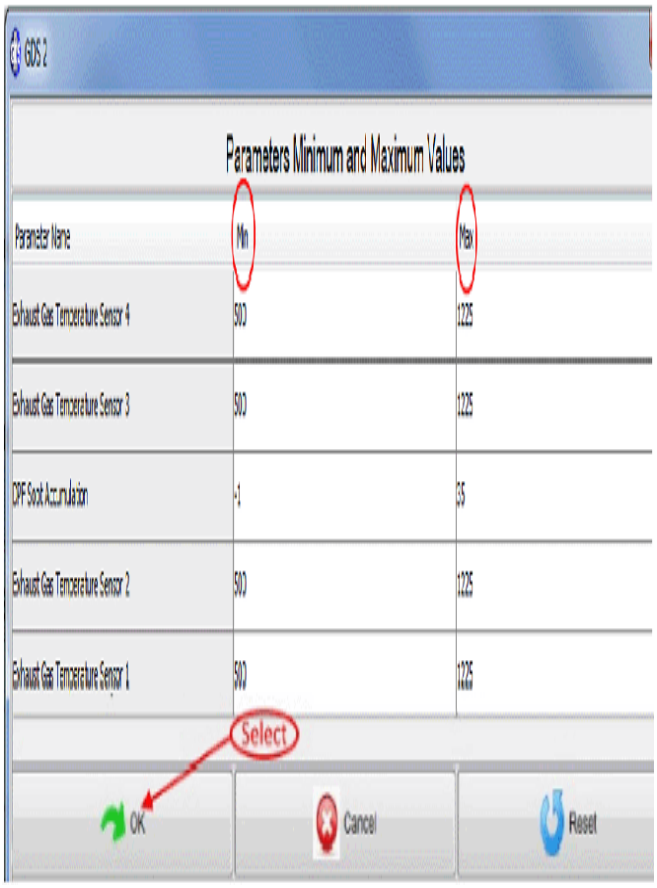
8. On the right side of the display, select the Show/ Hide Control arrow button.

4526908



4526924

9. Select the Change Scale button.

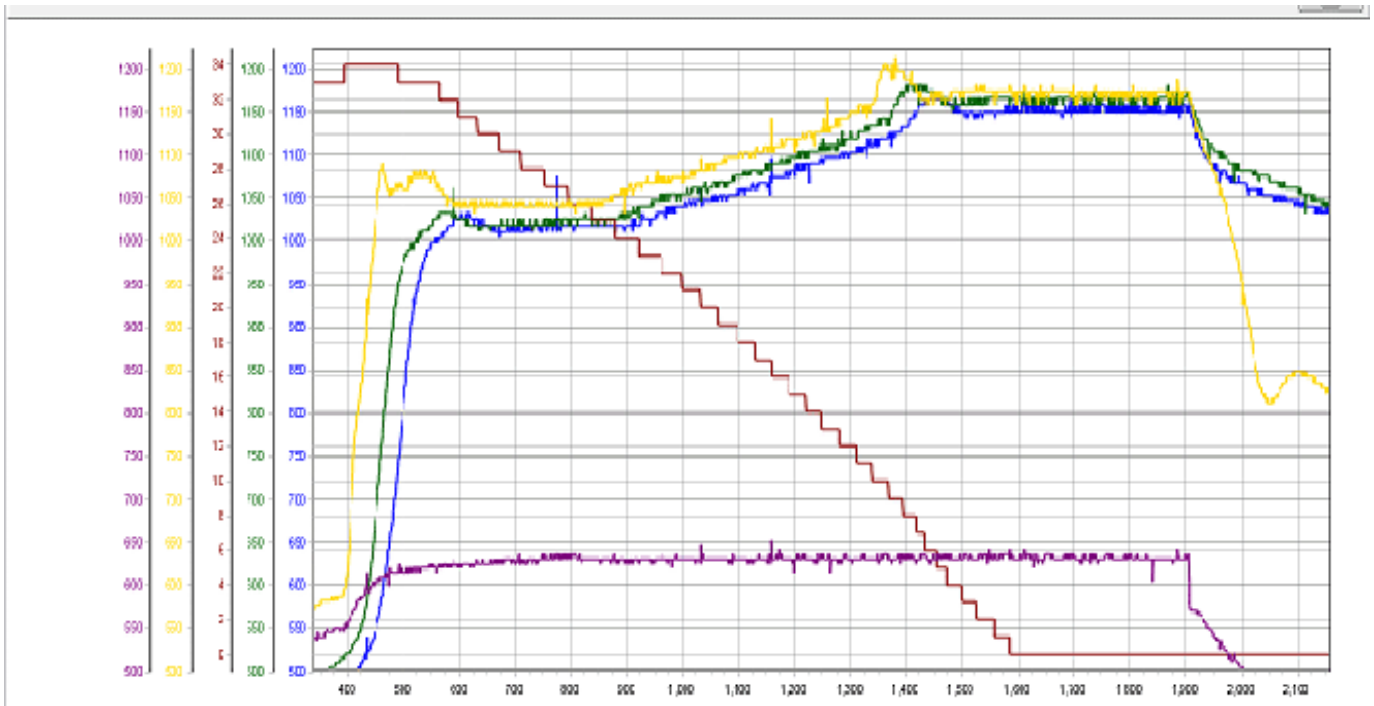


4533521

Note: When selecting the temperature values, the parameters should be all on the same scale.

10. Under the Parameters Values, select the MIN and MAX parameters for graphing out the readings.
11. Select OK.

Graph Results



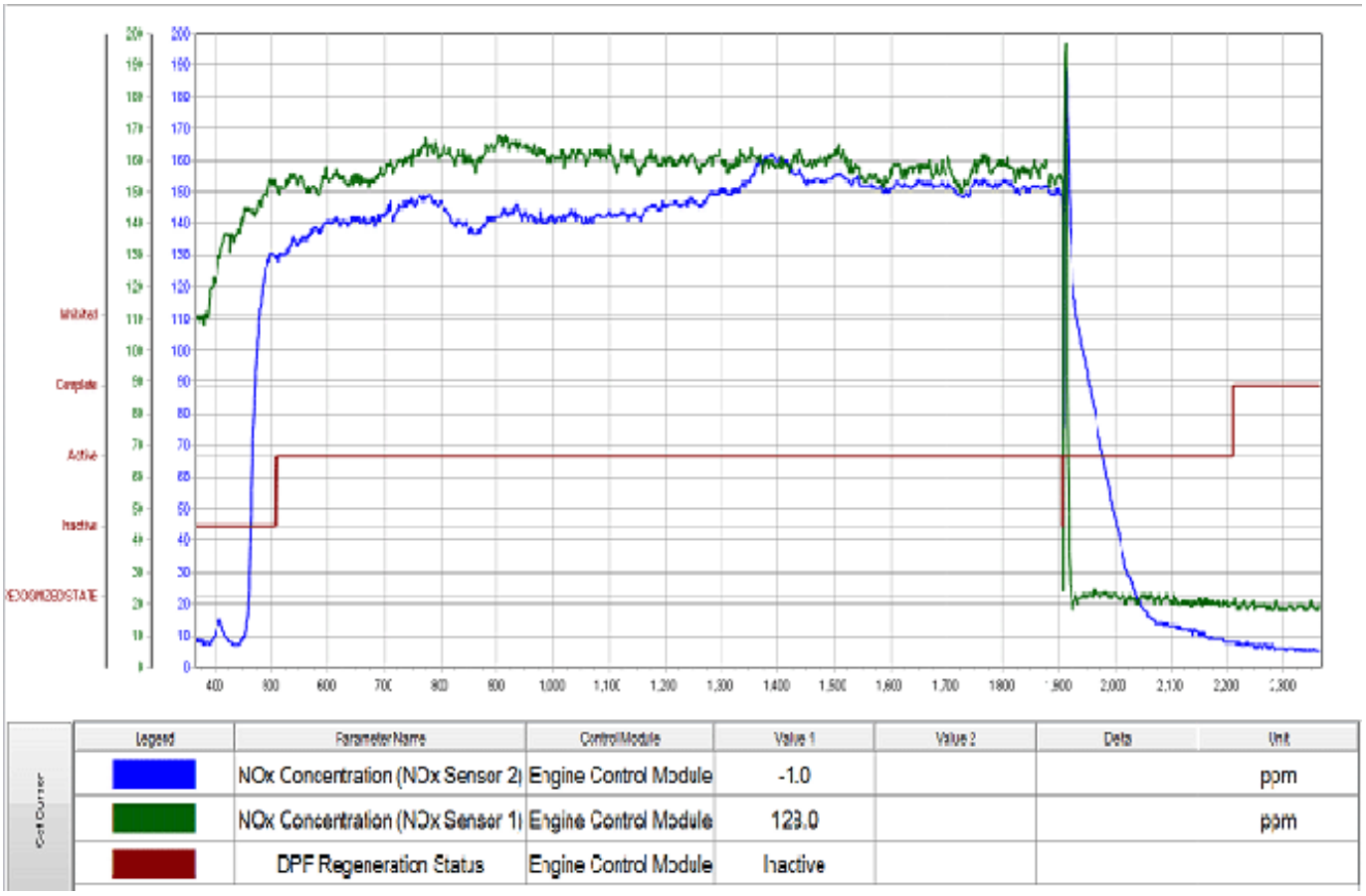
Legend	Parameter Name	Control Module	Value 1	Value 2	Delta	Unit
	Exhaust Gas Temperature Sensor 4	Engine Control Module	166			°F
	Exhaust Gas Temperature Sensor 3	Engine Control Module	190			°F
	DPF Soot Accumulation	Engine Control Module	34			g
	Exhaust Gas Temperature Sensor 2	Engine Control Module	246			°F
	Exhaust Gas Temperature Sensor 1	Engine Control Module	271			°F

4533561

Graphed results of the exhaust temperatures during the DPF Service Regeneration.

Recommended parameter values;

- Enter 500 under MIN.
- Enter 1225 under MAX.



Legend	Parameter Name	Control Module	Value 1	Value 2	Delta	Unit
	NOx Concentration (NOx Sensor 2)	Engine Control Module	-1.0			ppm
	NOx Concentration (NOx Sensor 1)	Engine Control Module	123.0			ppm
	DPF Regeneration Status	Engine Control Module	Inactive			

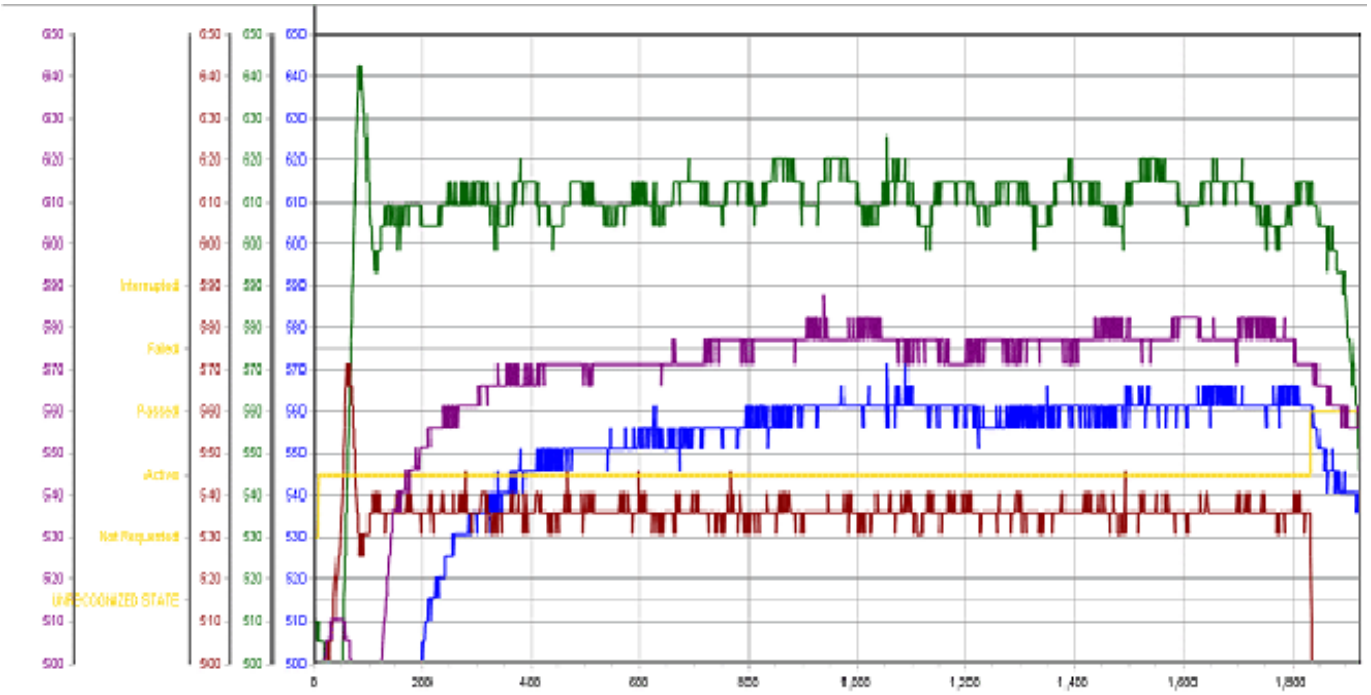
4533591

Note: NOx Sensor 2 may have higher readings than the NOx sensor 1 during a regeneration.

Graphed results of the NOx sensors during the DPF Service Regeneration.

Recommended parameter values;

- Enter 0 under MIN.
- Enter 200 under MAX.



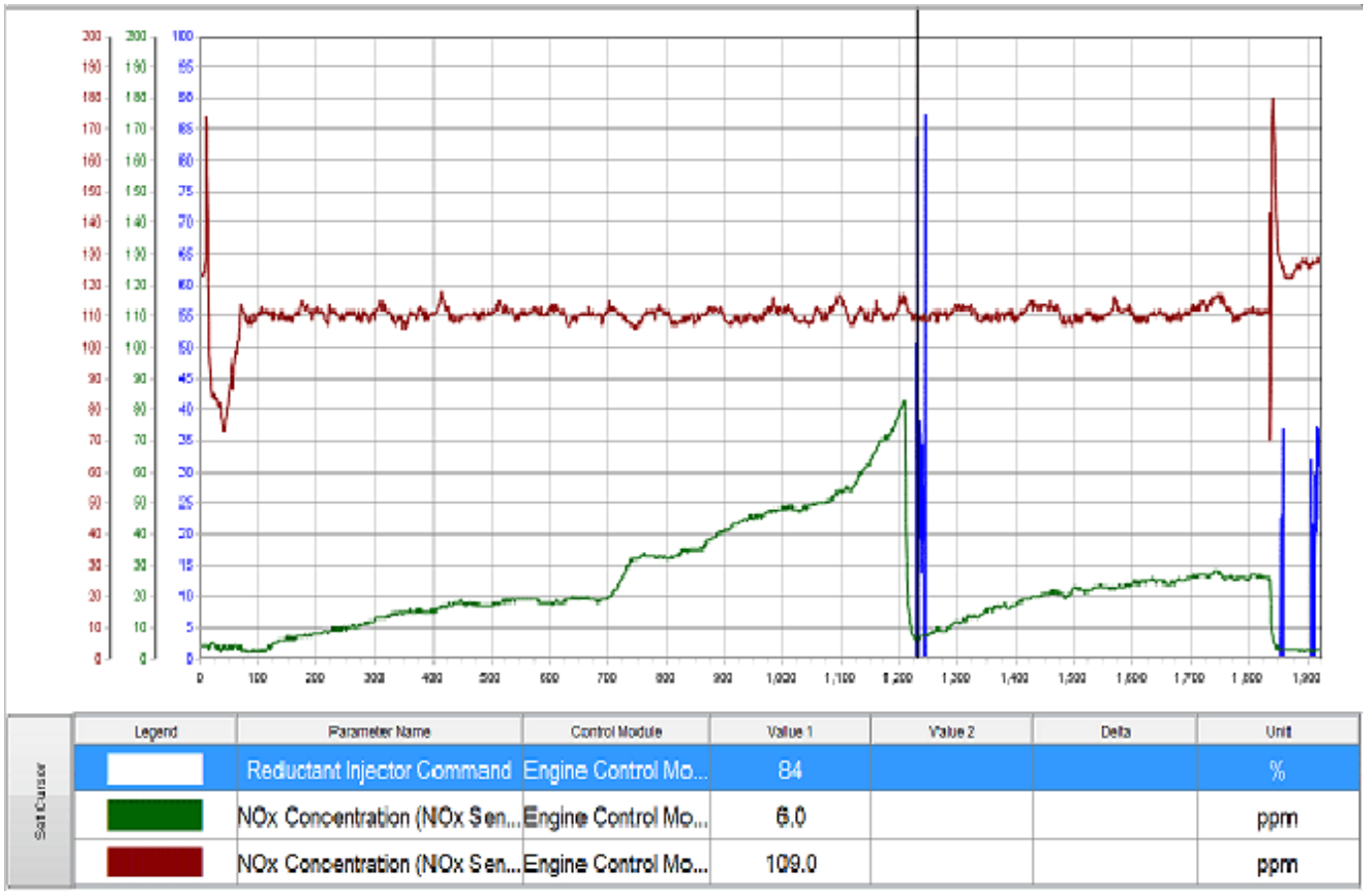
Legend	Parameter Name	Control Module	Value 1	Value 2	Delta	Unit
	Exhaust Gas Temperature Sensor 4	Engine Control Module	437			°F
	Exhaust Gas Temperature Sensor 2	Engine Control Module	505			°F
	Exhaust Gas Temperature Sensor 1	Engine Control Module	451			°F
	Reductant Fluid Quality Test	Engine Control Module	Not Requested			
	Exhaust Gas Temperature Sensor 3	Engine Control Module	406			°F

4533599

Graphed results of the exhaust temperature readings during the Reductant Fluid Quality test.

Recommended parameter values;

- Enter 500 under MIN.
- Enter 650 under MAX.

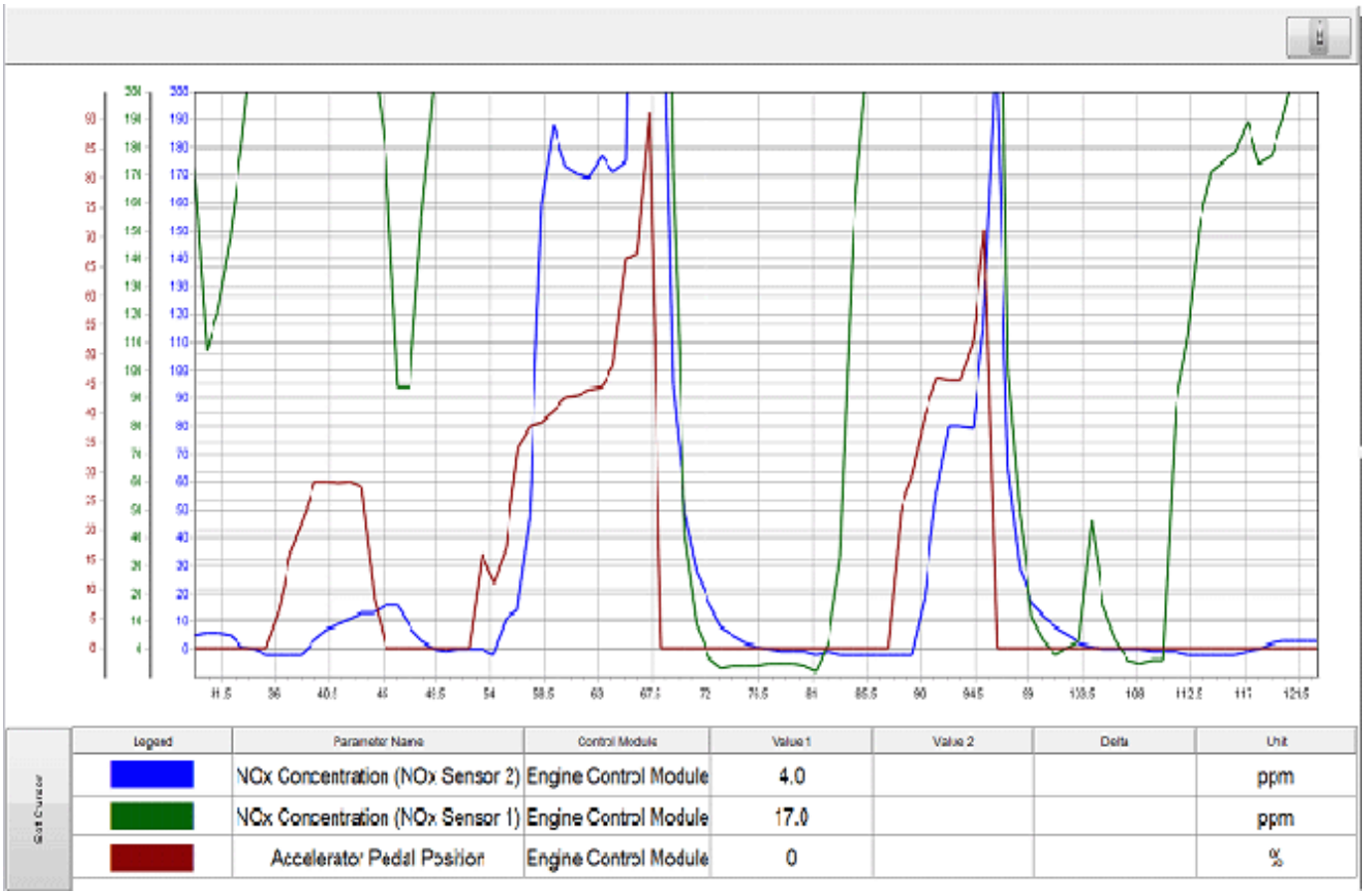


4533604

Graphed results of the NOx sensor readings during the Reductant Fluid Quality test with DEF Reductant Injector command.

Recommended parameter values;

- Enter 0 under MIN.
- Enter 200 under MAX.
- Enter 100 for the Reductant Injector Command.



4533620

Graphed results of NOx Concentration during Tip In and Tip Out.

- Enter 0 under MIN.
- Enter 200 under MAX.
- Enter 90 for Pedal position.

Version	1
Modified	

Additional Keywords: 6.6, soot, fuel, NOx, Nitrogen Oxide, O2, Regen, Regeneration, Fuel, SCR, LML, LGH, DOC, DPF, Poor, Exhaust, Particulate, Filter, Quality, P2463, P20EE, P2459, P2BAD, P2BAA, P249D