Overall Information

Table1- Overall Information

Vehicle plate number	85476
CPK data logger number	LN: 001508, DN: 2003, Sim +989218469624
Bus line	Number 10 (south to north Bus line)
Bus Terminals	Azadi square - Daneshgah square
Total path distance	10.7 km
DPF producer company	HJS_04 (Passive system with FBC)
Installation date	23/Feb/2015
Report period	01/Apr/2016 – 15/Apr/2016 (fifteen days)
K value - DPF upstream	1.8 [1/m]
K value – DPF downstream	0.02 [1/m]

Table 2- DPF Maintenance History

Filter maintenance date	DPF was cleaned on 22nd Jul for the first time and on 15th Dec for the second time after 44355 km mileage from installation date.
Dosing status	Dosing value has been kept constant from installation date until now.

Table 3- Fuel and Additive Consumption Information

Bus mileage (from DPF installation date)	59326 km
Bus mileage over the period	2123 km
Working days over the period	13 days
Stop days	2 days
Data logger working days	13 days
Working hours over the period	193 hours 5 minutes
Average working hours per day (including stop days)	12 hours 52 minutes
Bus average speed	11 km/hr
idle speed time to all working time ration	64.97 %
Total Bus fuel consumption over the period	1465 lit
Fuel consumption per hour	7.6 lit/hr
Average fuel consumption	0.69 lit/km
Total Bus additive consumption over the period	0.703 lit
Average additive consumption	331 cc/km
Additive consumption to fuel ration	480 cc/1000lit

Temperature, Pressure and Engine Speed Overview

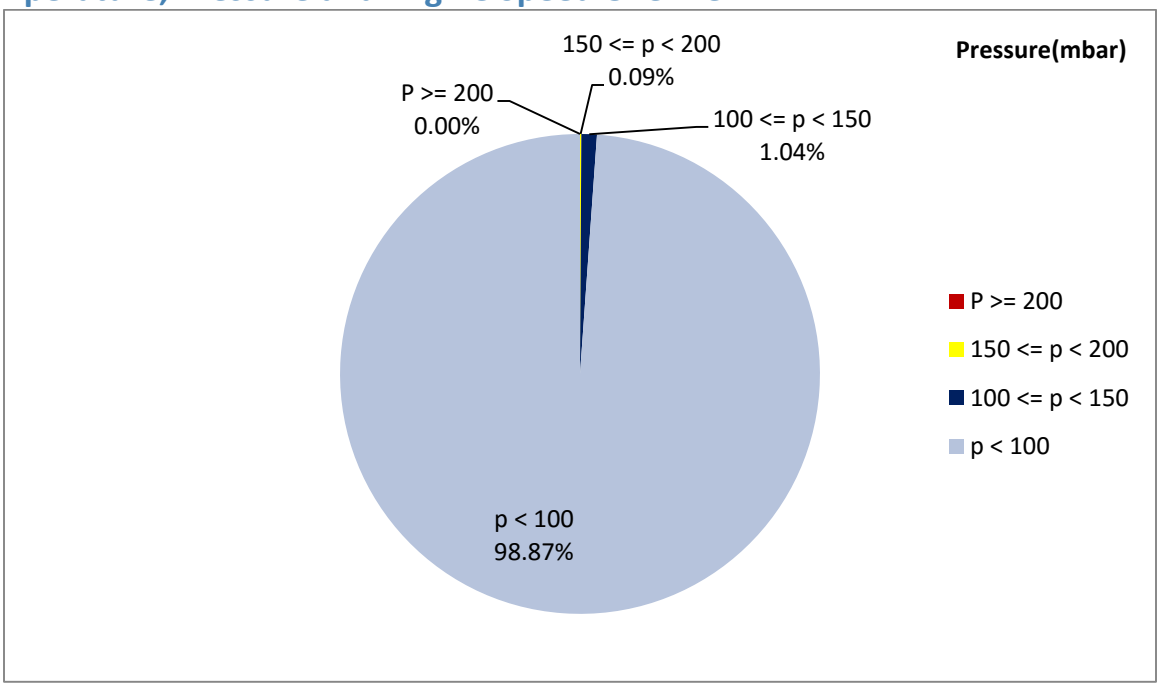

Figure 1- Pressure distribution over the working hours

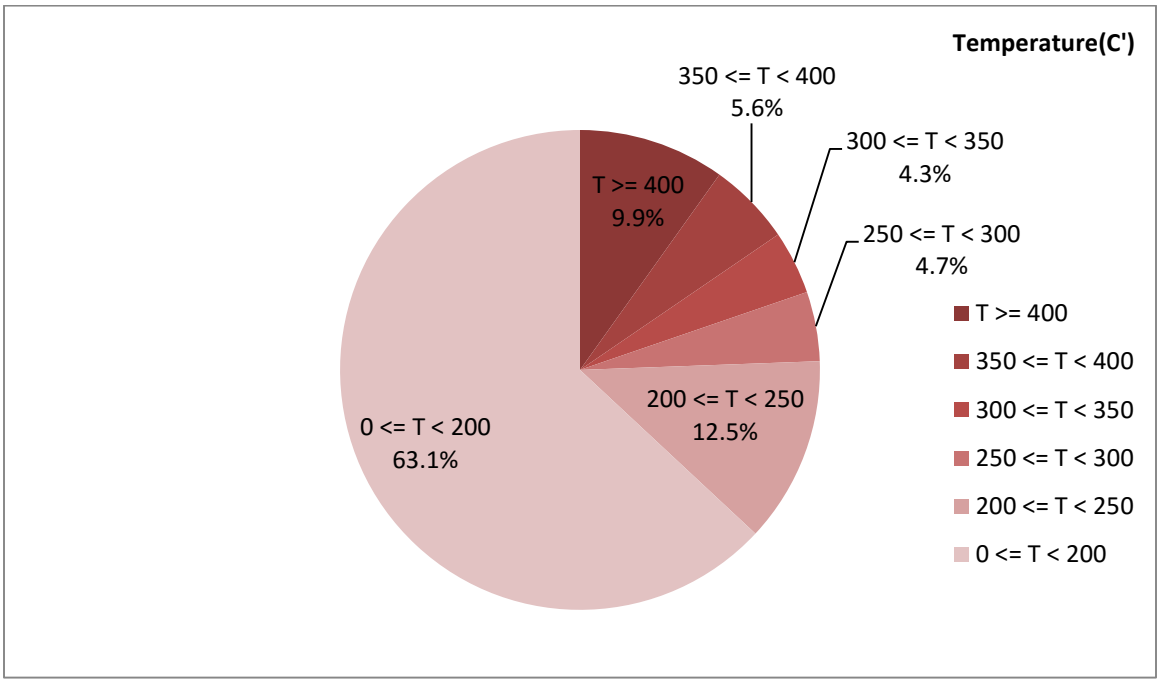

Figure 2-Temperature distribution over the working hours

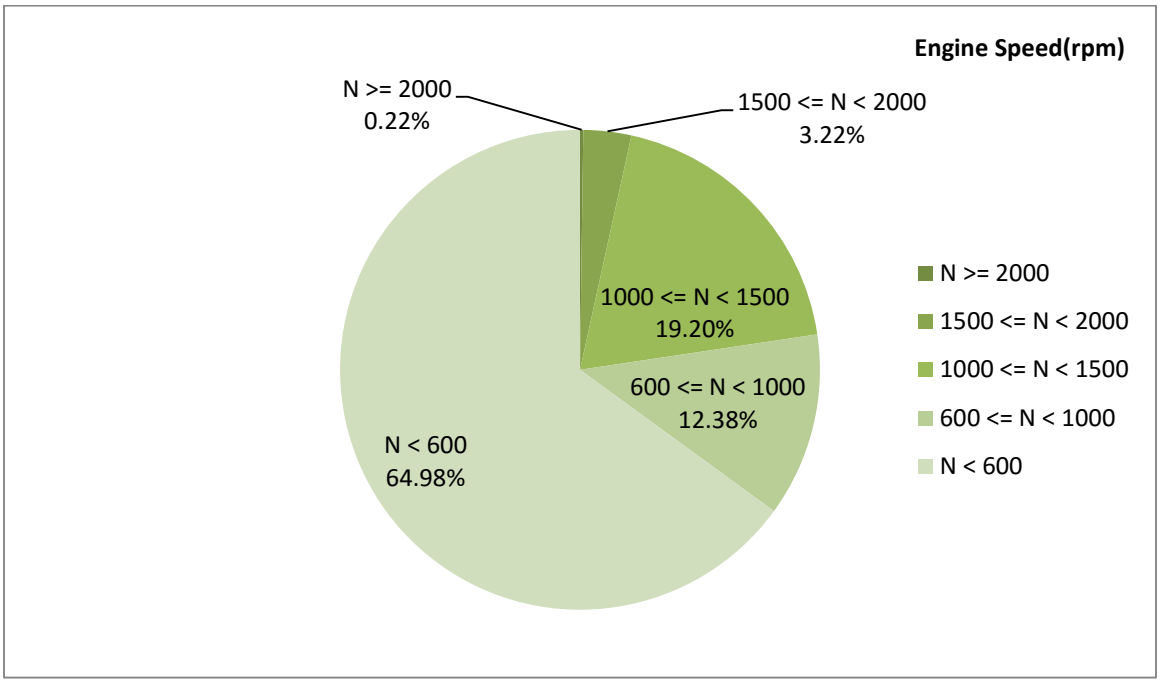

Figure 3- Engine speed distribution over the working hours

Table 4- Mean values

Mean temperature (C)	Mean pressure(mbar)	Mean engine speed(rpm)
216.67	14.73	754

Table 5- Mean values without idling

Mean temperature (C)	Mean pressure(mbar)	Mean engine speed(rpm)
292.03	31.65	1109

Table 6- Max-min values

Max-min temperature(C)	Max-min pressure(mbar)	Max-min engine speed(rpm)
606-50	201-0	2544-272

Detailed Pressure Analysis

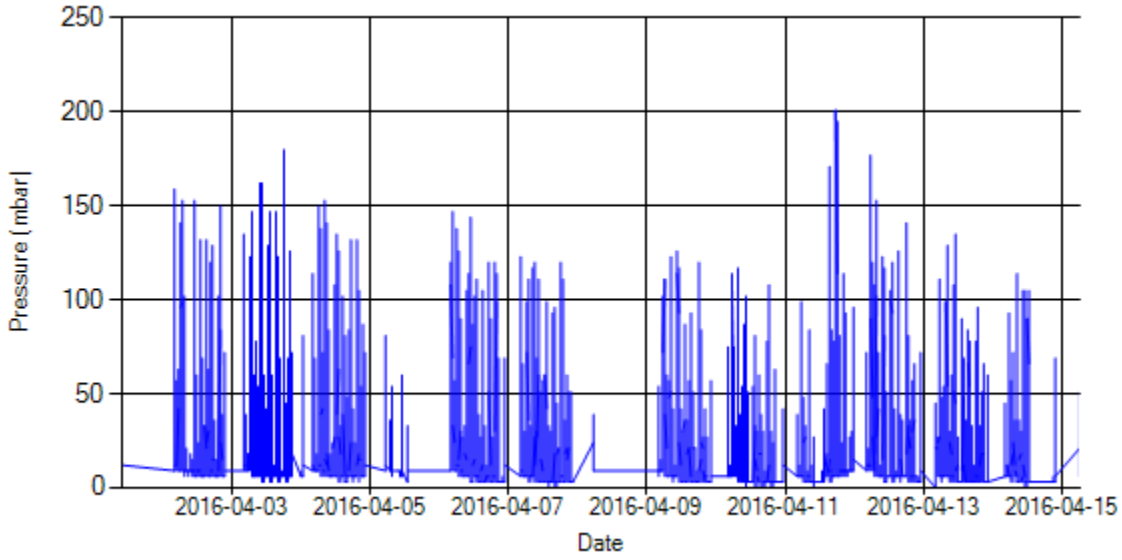

Figure 4- Pressure distribution over the period

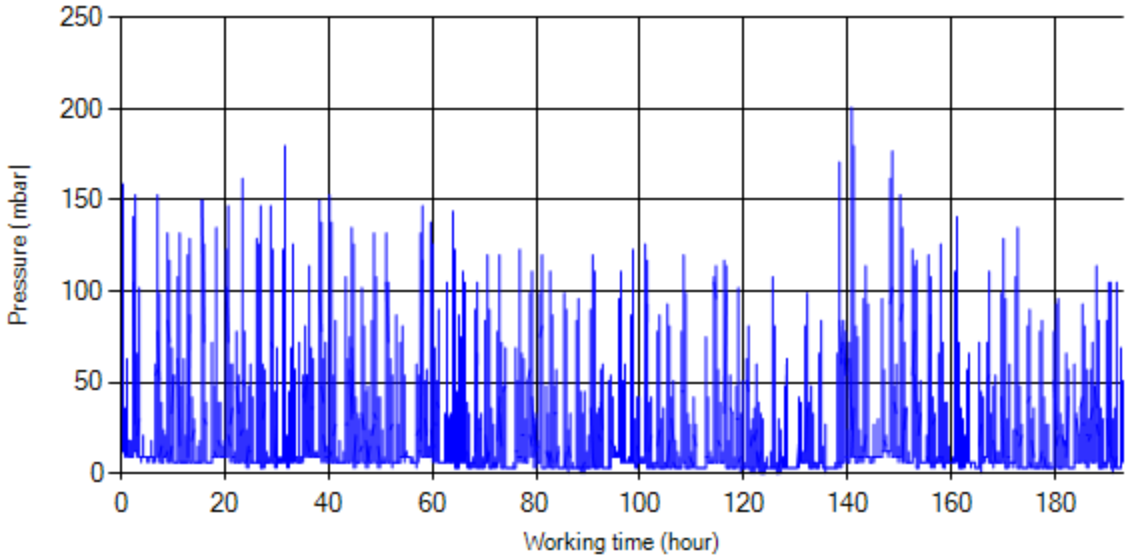

Figure 5- Pressure vs. working hours

Notice: backpressure distribution was shown into two diagrams. As obvious in figure 5, stop-working periods were eliminated and pressure was displayed along working hours.

Detailed Temperature Analysis

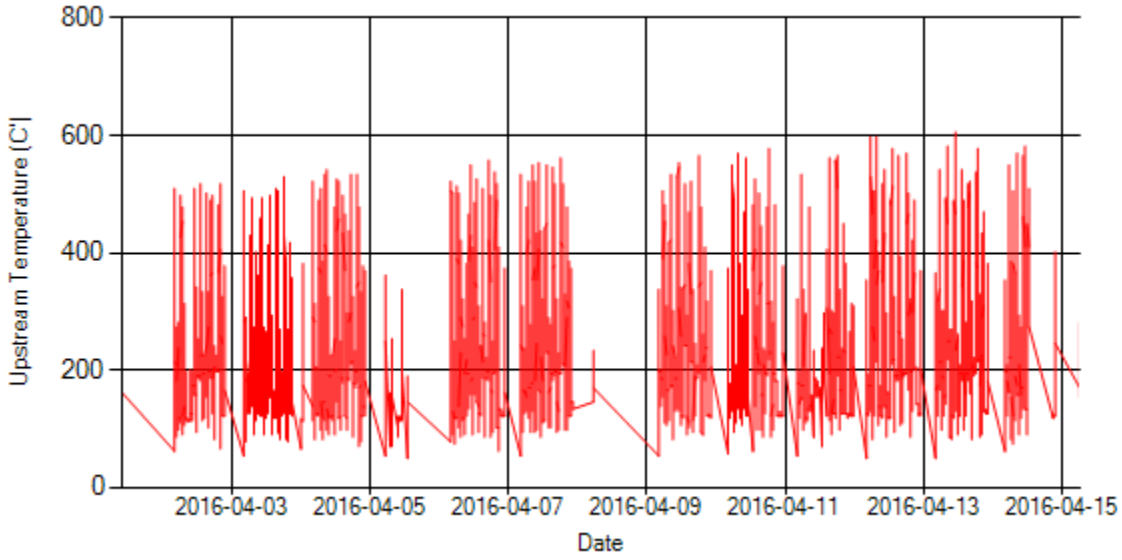

Figure 6- Temperature distribution over the period

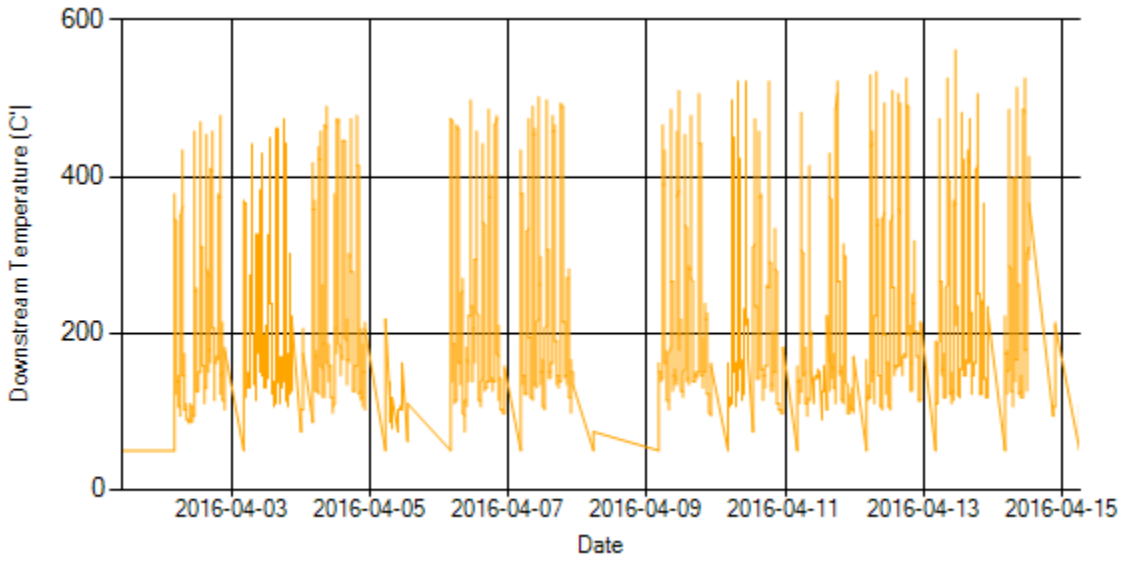

Figure 7- Temperature distribution over the period

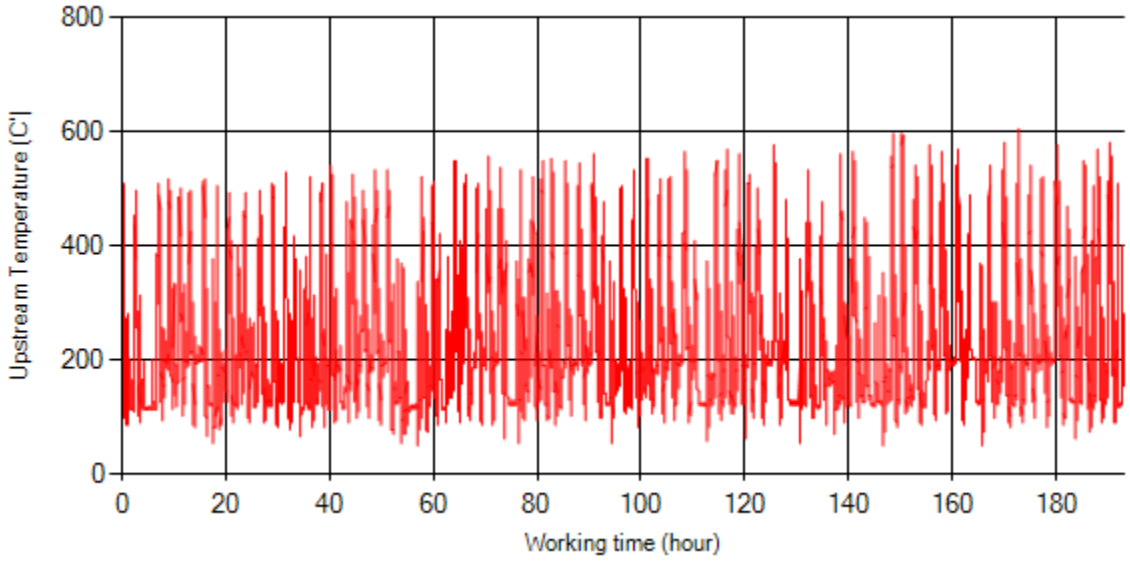

Figure 8- Temperature vs. working hours

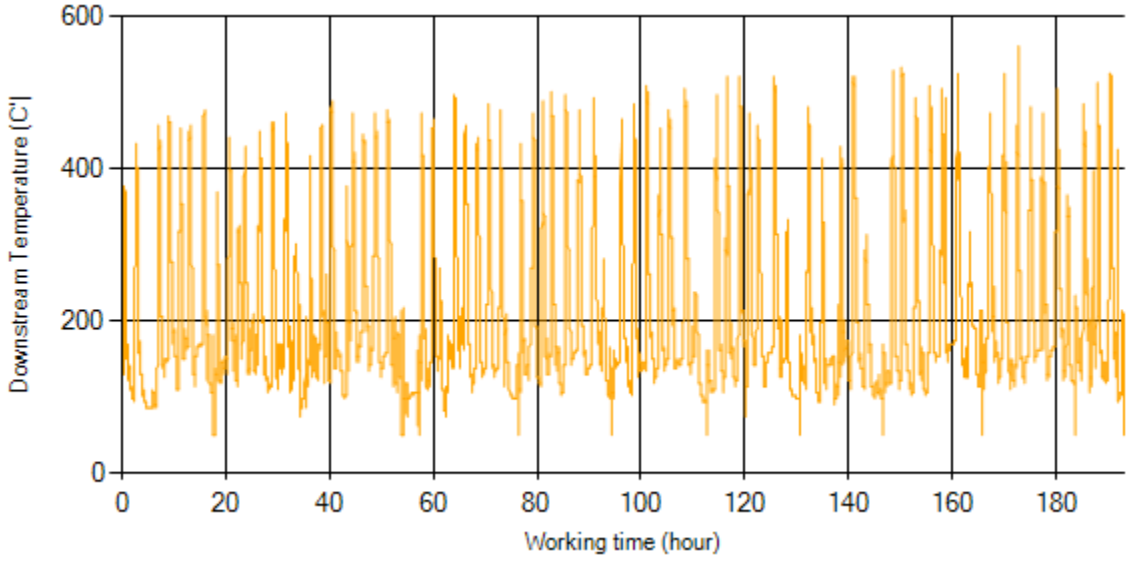

Figure 9- Temperature vs. working hours

Engine Speed Diagrams

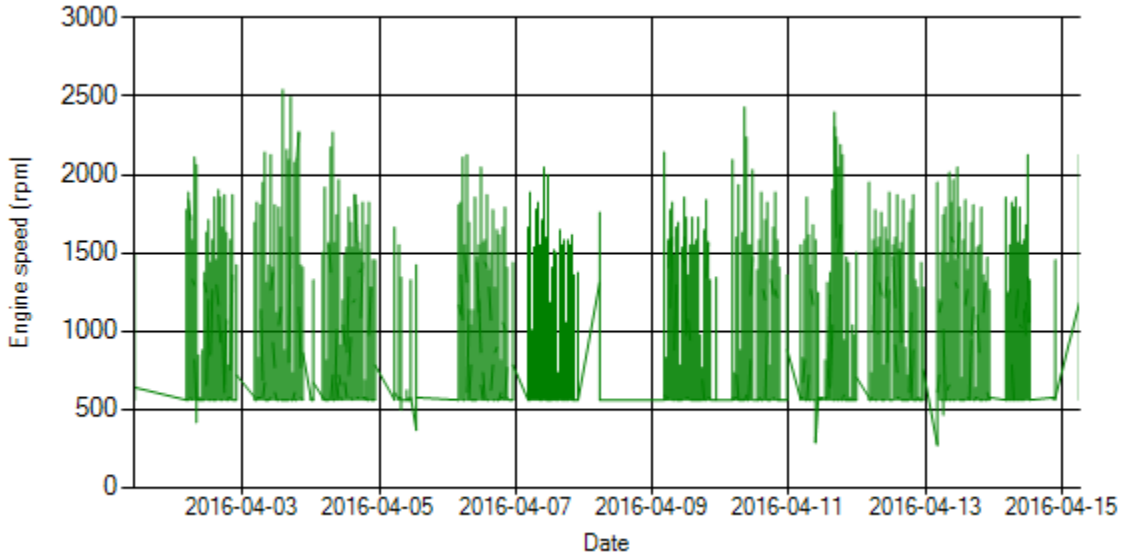

Figure 10- Engine speed distribution over the period

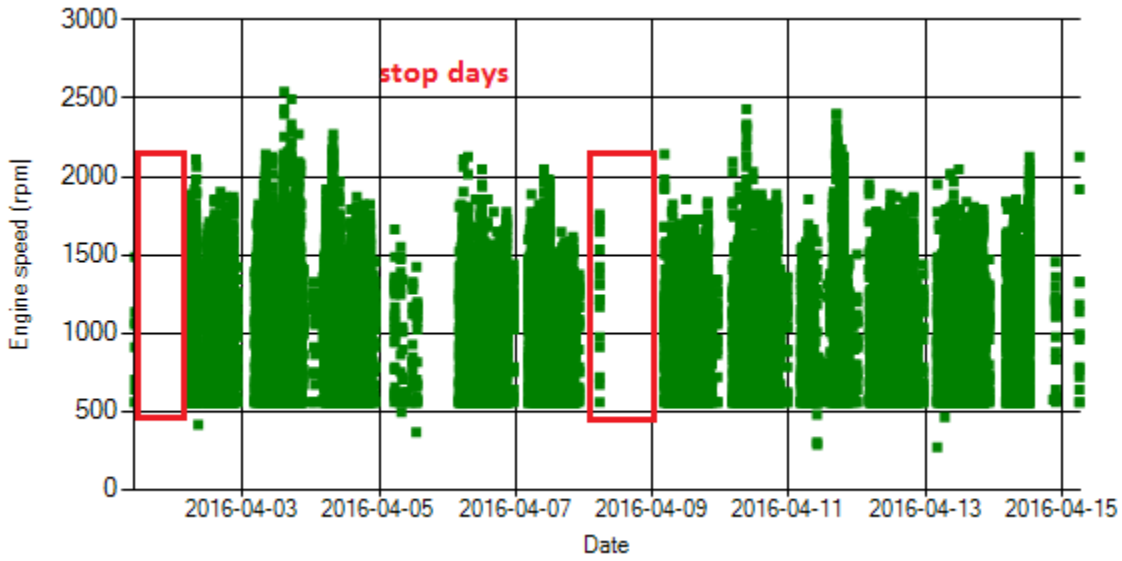

Figure 11- Engine speed diagram for calculating CPK's working days

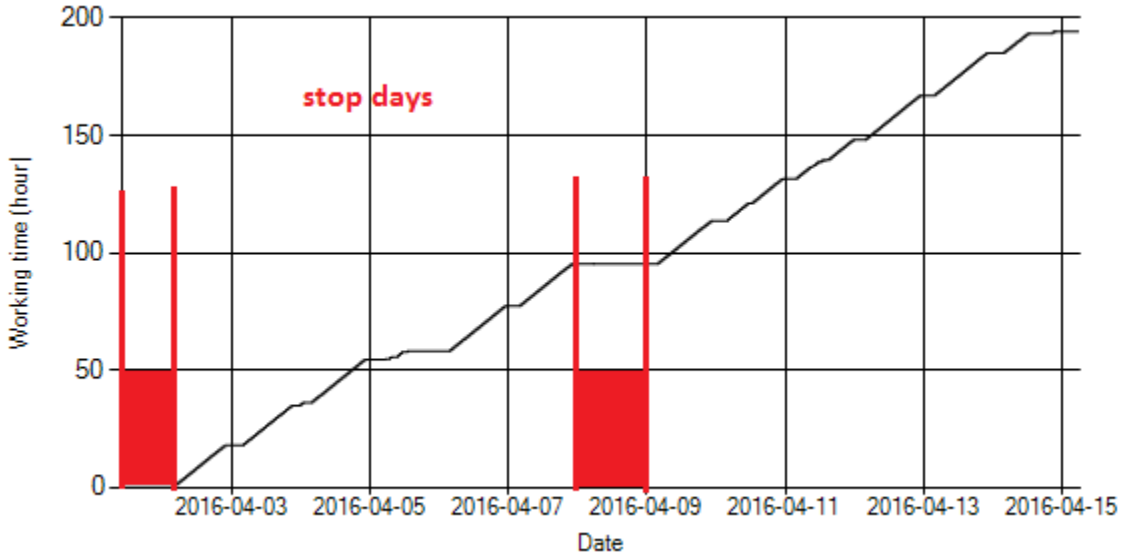

Figure 12- Time diagram for calculating CPK's working days

Notice: Data logger sampling time can be calculated from Figure 12. The lines parallel with Date axis show days without data logger data. As depicted in Figure 12 vehicle was stationary for 2 days.

Pressure-Engine Speed diagrams

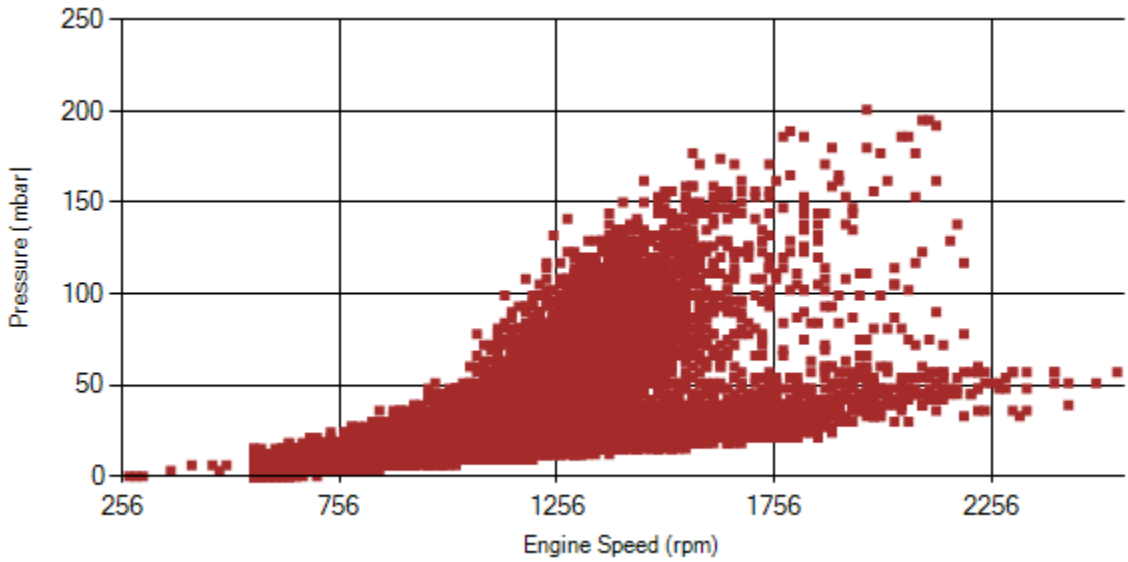

Figure 13- Pressure against engine speed

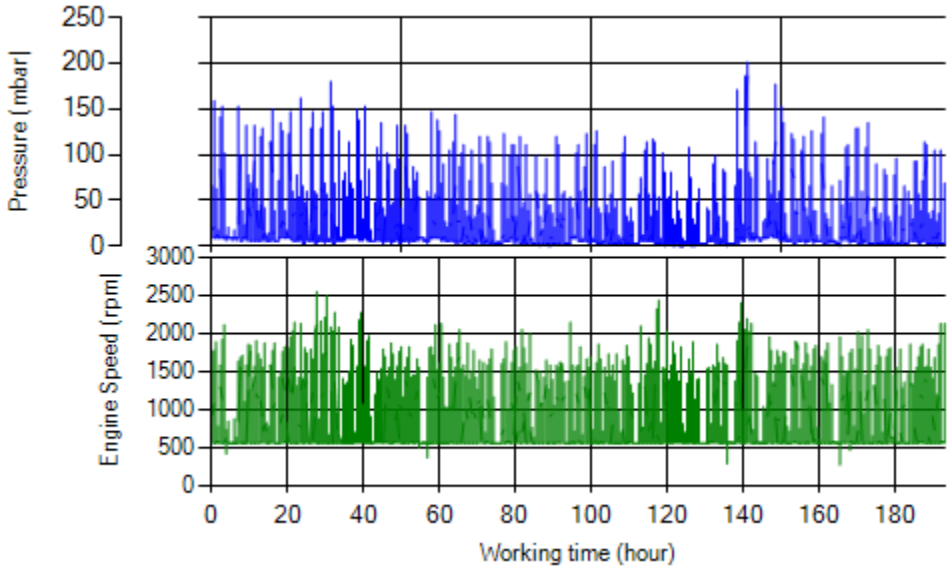

Figure 14- P, N distribution vs. working hours

Temperature-Engine Speed diagrams

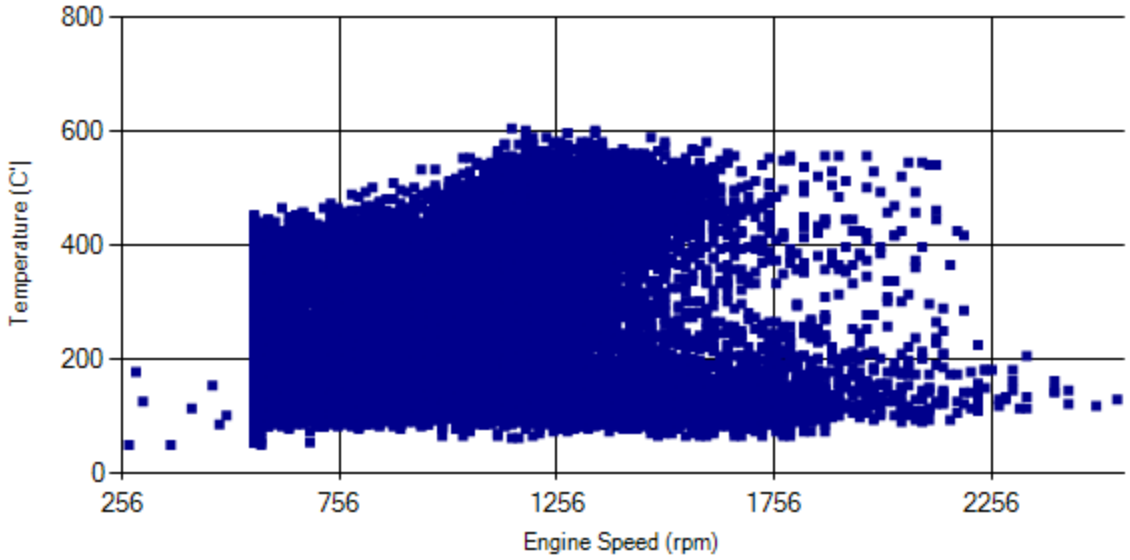

Figure 15- Temperature against engine speed

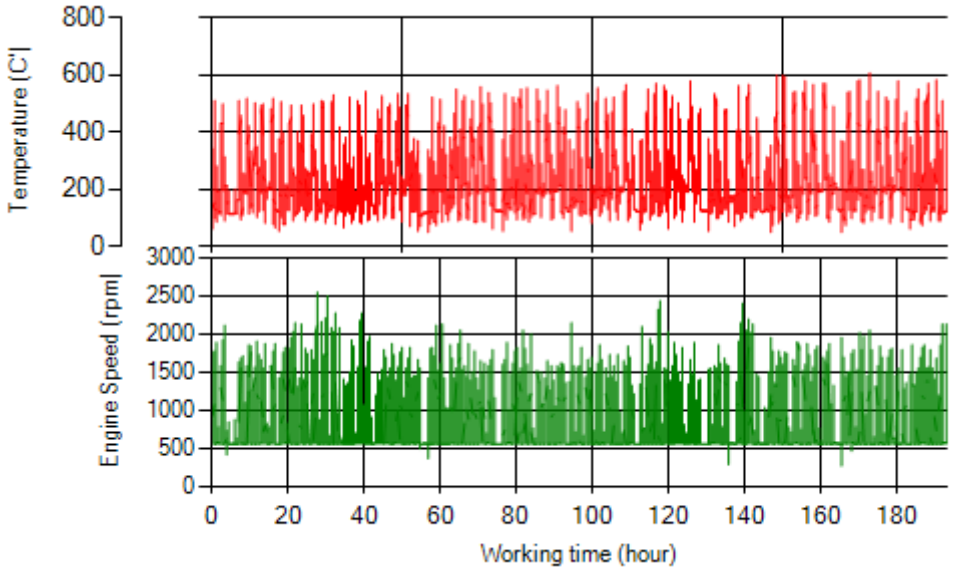

Figure 16- T, N distribution vs. working hours

Filter Operation Analysis

- As depicted in figure 1, only 0.09% of working time pressure was above 150 mbar.
- It can be obviously observed that 9.9% of total working-time temperature is above 400 ℃ and 15.5% above 350℃.

Filter operation status	Excellent ■ Good ☐ Maintenance required ☐ Failed☐