Notice: System was working without DPF during this period

Overall Information

Table1- Overall Information

Vehicle plate number	78524
CPK data logger number	LN: 001443, DN: 1930, Sim +989218786219
Bus line	Number 4 (south to north Bus line)
Bus Terminals	Tehran South Bus Terminal - Park Way Bus Terminal
Total path distance	22.8 km
DPF producer company	PURItech (Passive system with FBC)
Installation date	28/Jan/2015
Report period	01/Nov/2015 – 15/Nov/2015 (fifteen days)
K value – DPF upstream	2.00 [1/m]
K value – DPF downstream	0.02 [1/m]

Table 2- DPF Maintenance History

Filter maintenance date	DPF core was removed on Jul 22nd and was cleaned on Aug 12th for the first time. Considering system relatively high backpressure, filter isolation defect and air filter's deformation, DPF core was removed on Sep 16th and will be installed on system after cleaning and improving isolation system.
Dosing status	Dosing value has been kept constant from installation date until now.

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Table 3- Fuel and Additive Consumption Information

Bus mileage (from DPF installation date)	42365 km
Bus mileage over the period	705 km
Working days over the period	8 days
Stop days	7 days
Data logger working days	8 days
Working hours over the period	80 hours 14 minutes
Average working hours per day (including stop days)	5 hours 20 minutes
Bus average speed	8.79 km/hr
idle speed time to all working time ration	- %
Total Bus fuel consumption over the period	423 lit
Fuel consumption per hour	5.27 lit/hr
Average fuel consumption	0.6 lit/km
Total Bus additive consumption over the period	-lit
Average additive consumption	- cc/km
Additive consumption to fuel ration	- cc/1000lit

Notice: Due to some technical problem related to data logger, rpm data were missing. So related parameters like idling speed were left blank.

Notice: DPF core was removed on Sep 16th and additive system was disconnected, so additive consumption during this period was zero.

Notice: Considering data logger problem and stop days with switch on, working hours and its related parameters were unreliable.

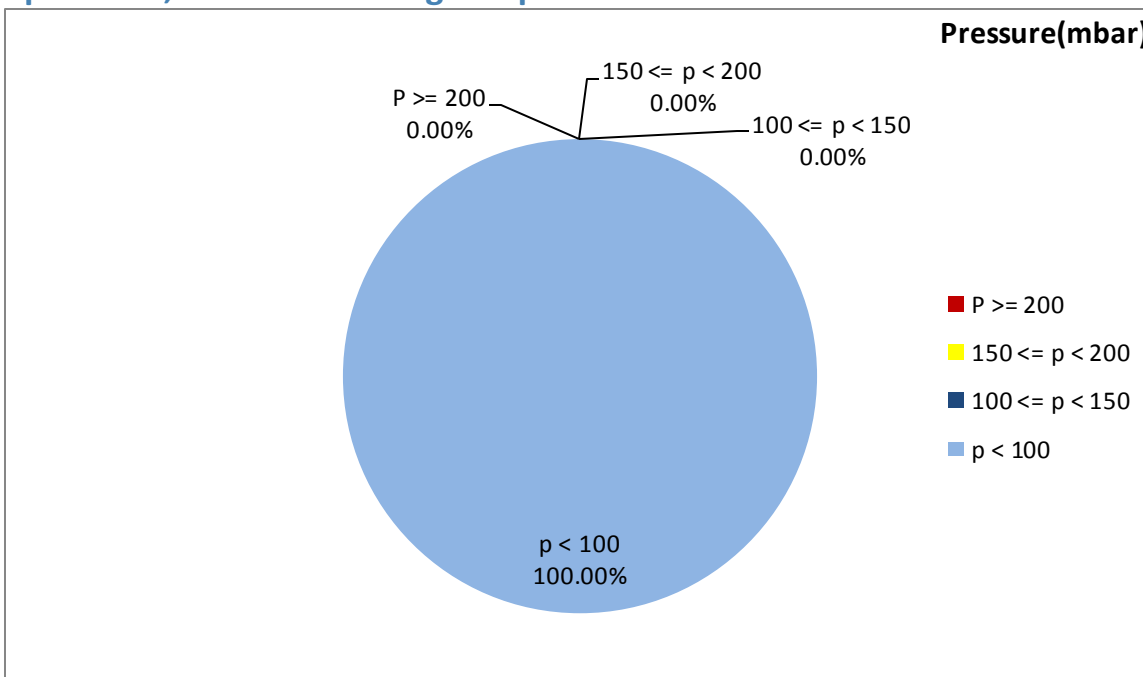## Temperature, Pressure and Engine Speed Overview

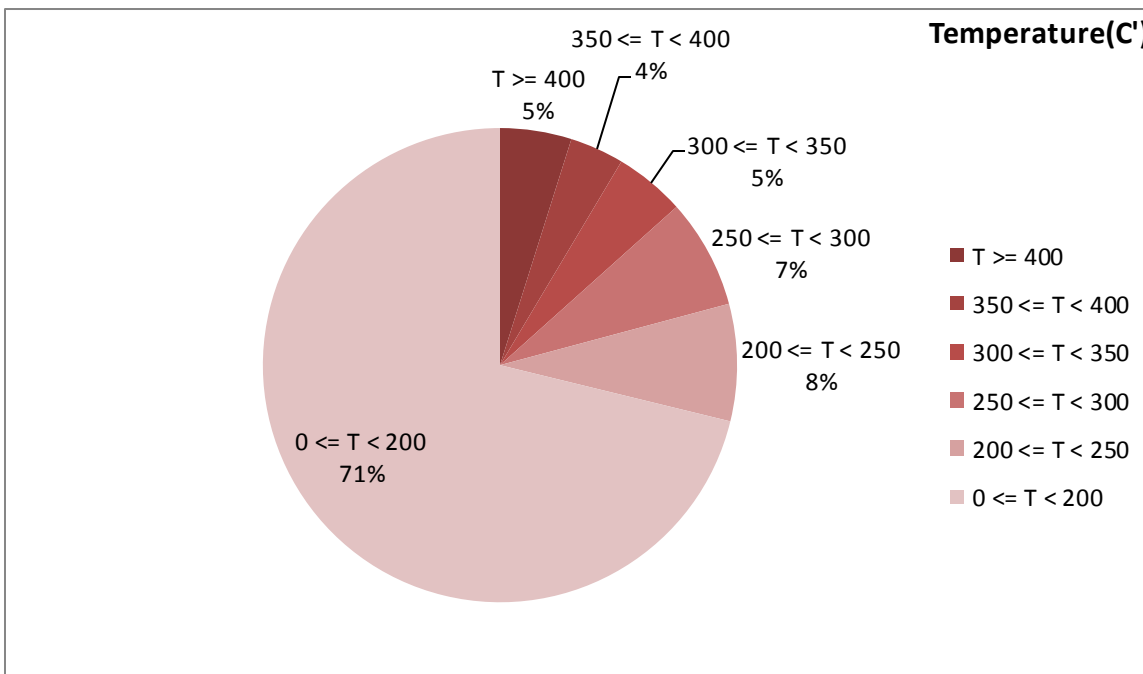*Figure 1- Pressure distribution over the working hours*

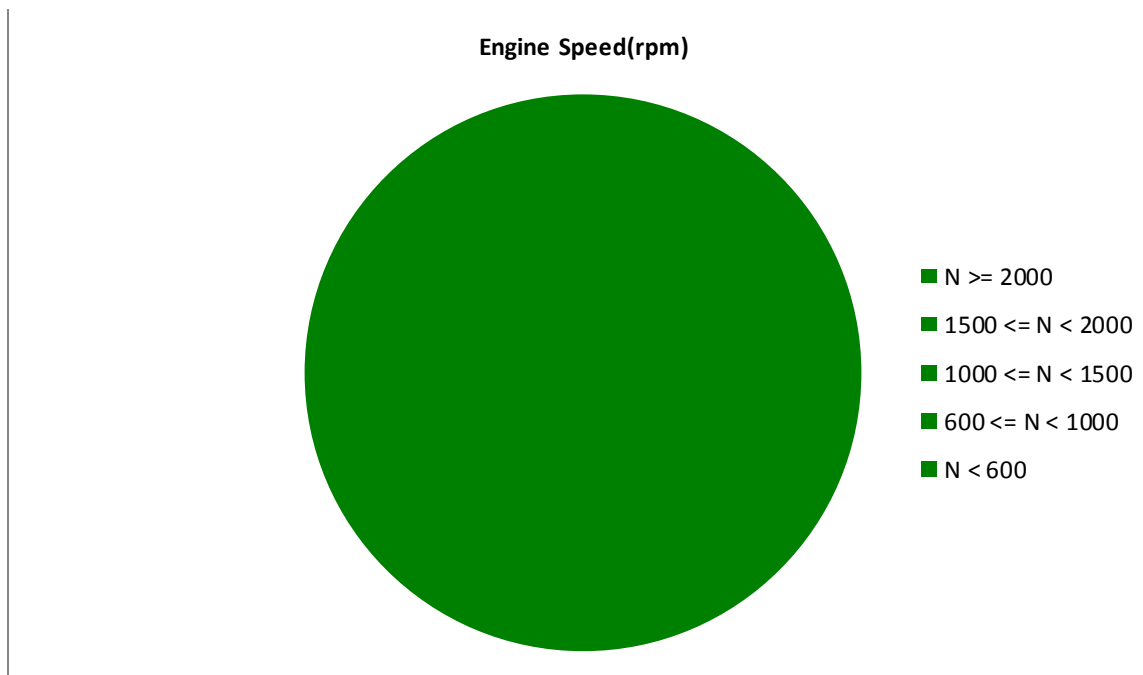*Figure 2-Temperature distribution over the working hours*

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Engine Speed(rpm)

- N >= 2000
- 1500 <= N < 2000
- 1000 <= N < 1500
- 600 <= N < 1000
- N < 600

Figure 3- Engine speed distribution over the working hours

Table 4- Mean values

Mean temperature (C)	Mean pressure(mbar)	Mean engine speed(rpm)
175.15	4.05	-

Table 5- Mean values without idling

Mean temperature (C)	Mean pressure(mbar)	Mean engine speed(rpm)
-	-	-

Table 6- Max-min values

Max-min temperature(C)	Max-min pressure(mbar)	Max-min engine speed(rpm)
546-50	96-0	-

Notice: Due to data logger technical problem, rpm sensor data missed. So engine speed's related parameters were left blank.
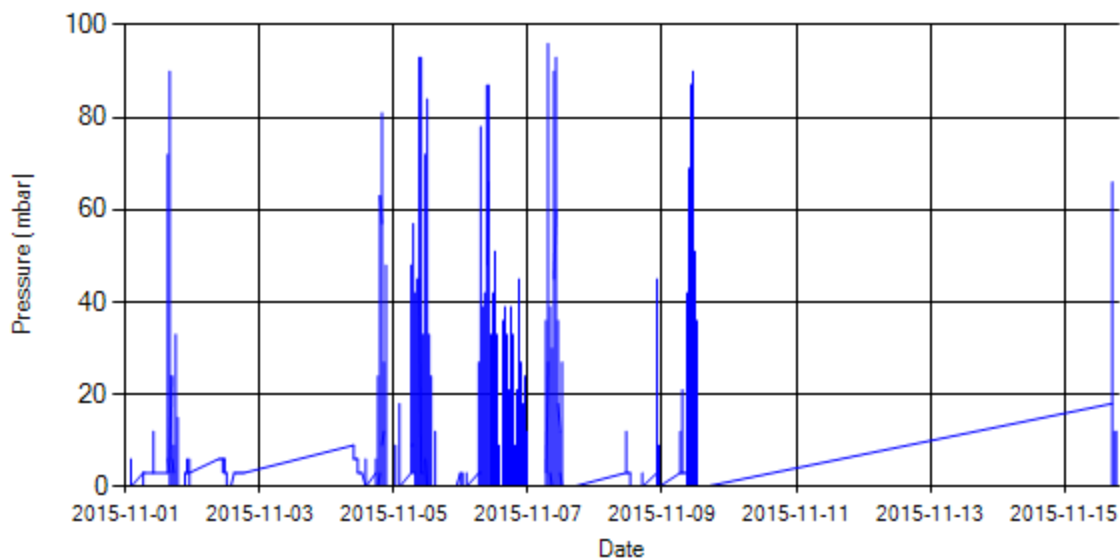
4

Detailed Pressure Analysis

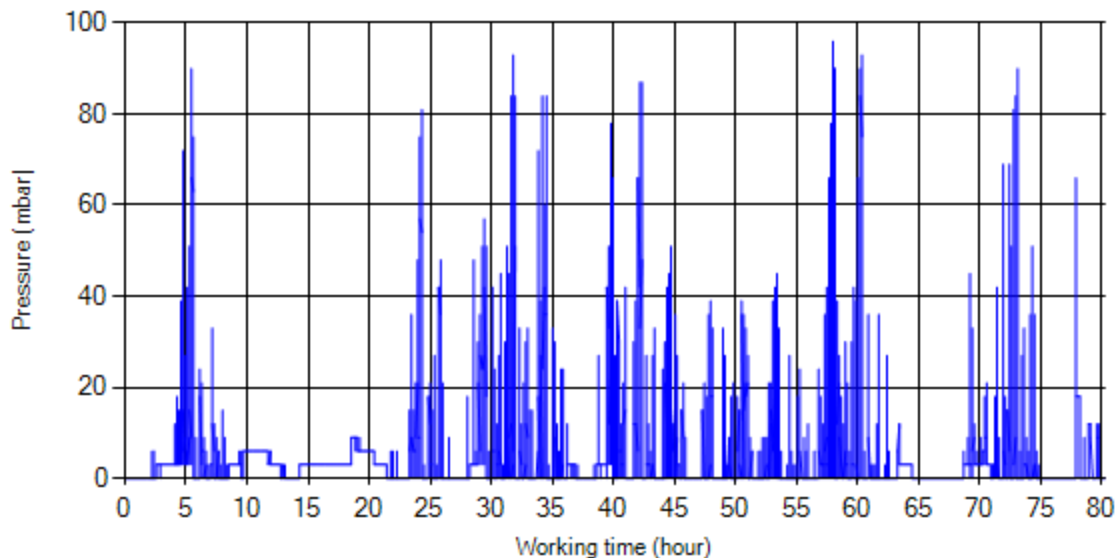*Figure 4- Pressure distribution over the period*

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.
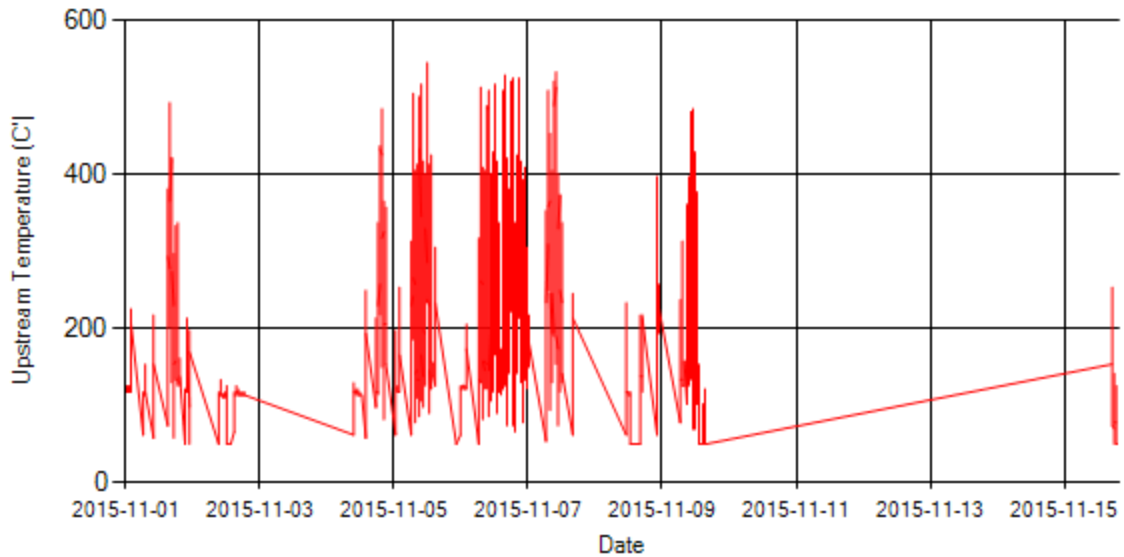
5

Detailed Temperature Analysis

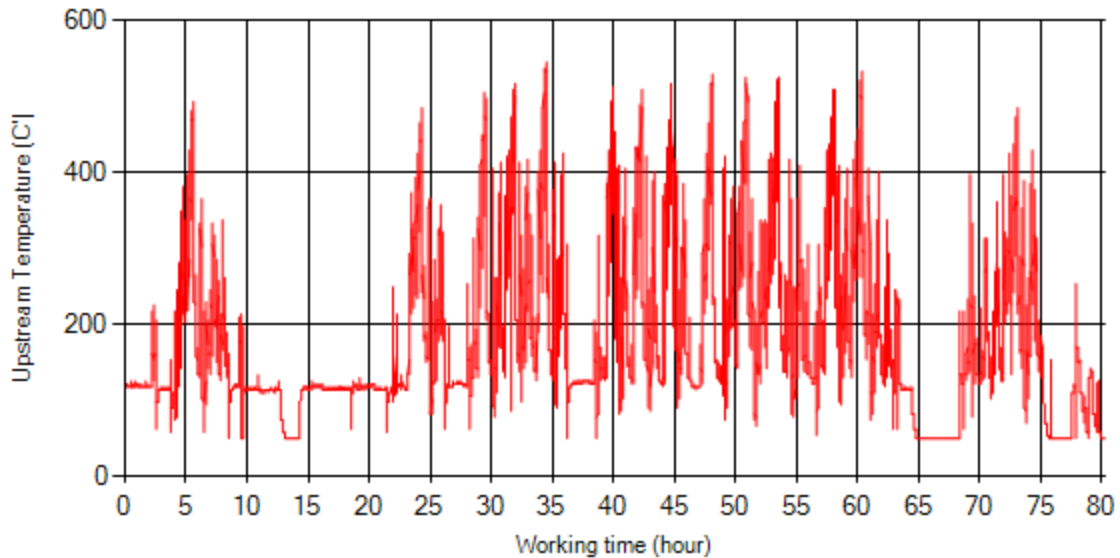*Figure 6- Temperature distribution over the period*

Figure 7- Temperature vs. working hours

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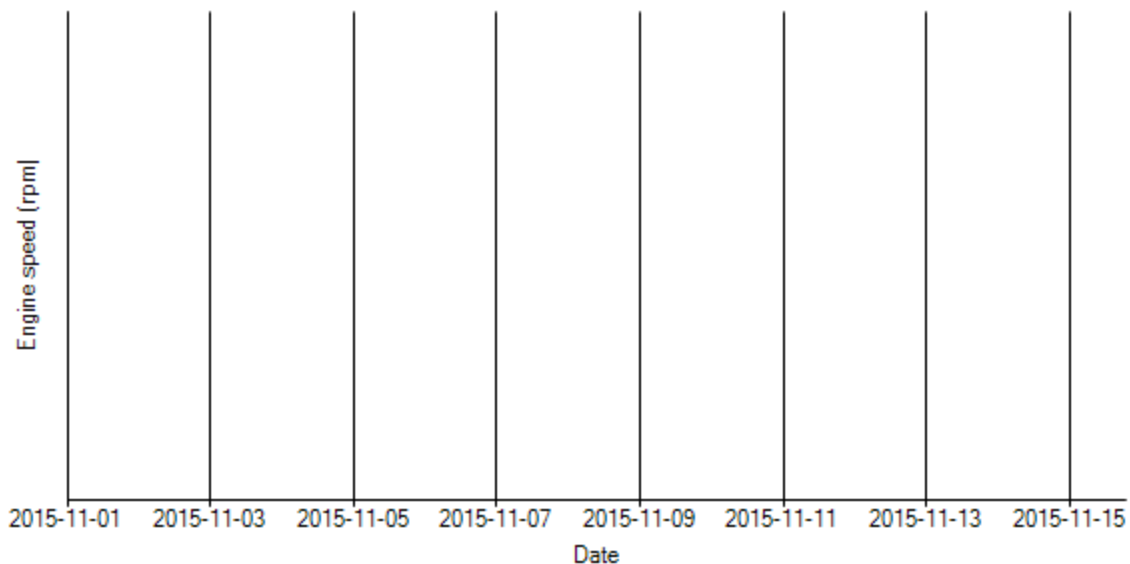# Engine Speed Diagrams

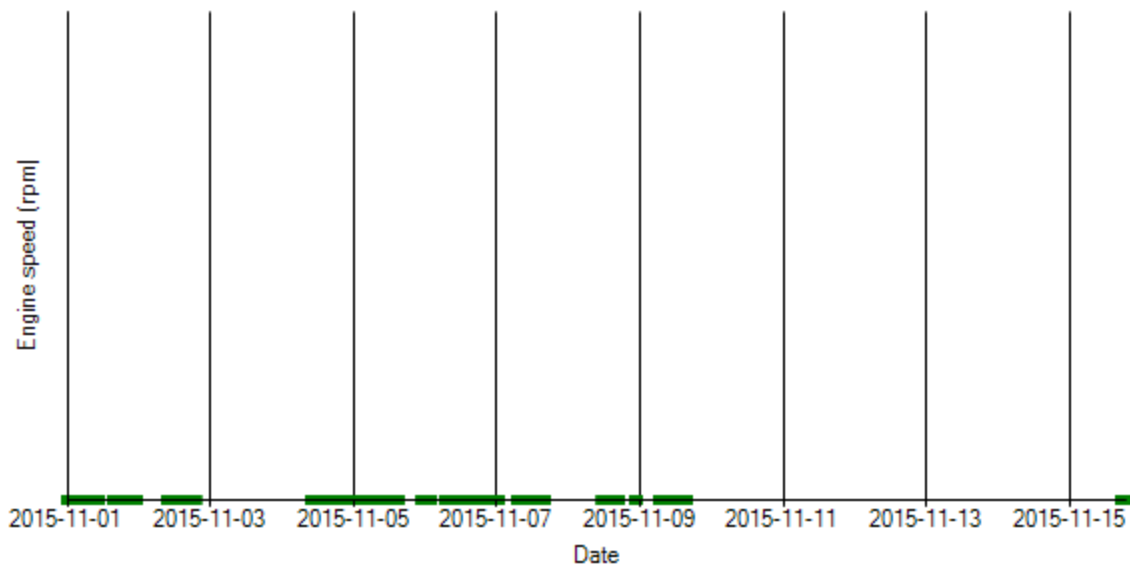*Figure 8- Engine speed distribution over the period*

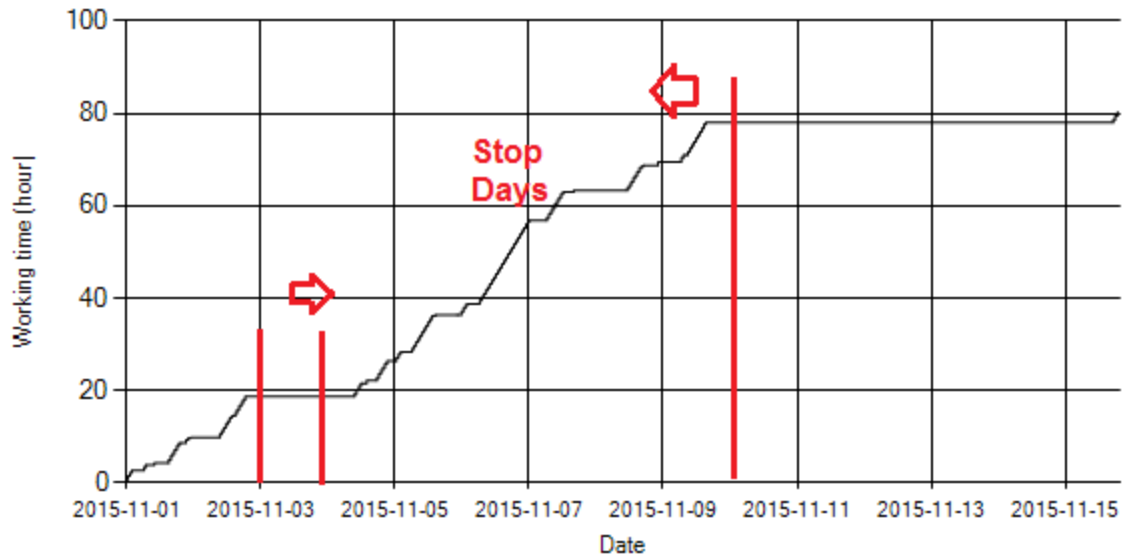*Figure 9- Engine speed diagram for calculating CPK's working days*

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Figure 10- 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.

Pressure-Engine Speed diagrams

Notice: Due to RPM sensor problem this section was left blank.

Temperature-Engine Speed diagram

Notice: Due to RPM sensor problem this section was left blank.

Filter Operation Analysis

Notice: System was working without DPF during this period.