



# CASE STUDY: BG PLATINUM® FUEL SYSTEM SERVICE

<b>SERVICE</b>	BG Platinum® Fuel System Service
<b>PRODUCTS</b>	BG Platinum® Air Intake, Valve & Combustion Chamber Cleaner, PN 261 BG Platinum® 44K®, PN 208
<b>EQUIPMENT</b>	BG Platinum® Fuel Service Supply Tool, PN E101-1249 BG AE03 Intake Adaptor, PN E101-1541 7/16" Jumper Hose



**VEHICLE:**  
2018 Toyota Highlander, 3.5L  
12,406 miles (19,996 km)

## PROBLEM

In gasoline direct injection (GDI) engines, built-up carbon can have a substantial effect on the air to fuel ratio which leads to inefficient combustion and drivability issues such as misfire, power loss and poor fuel economy.

Cleaner applied through the fuel system will not address deposits on the intake plenum or valves. This is due to the placement of the high pressure injector inside the combustion chamber on GDI engines.

## SOLUTION

Following platform-specific instructions, the BG Platinum® Fuel System Service will remove deposits from the backs of intake valves, combustion chambers, and injector tips.

- Restores power
- Improves drivability
- Restores fuel economy

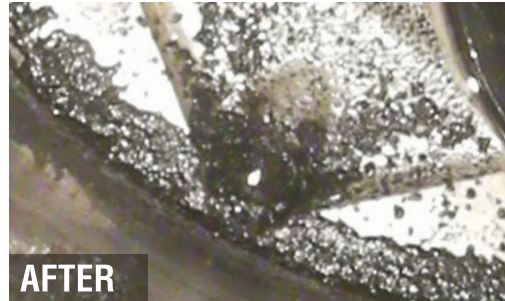




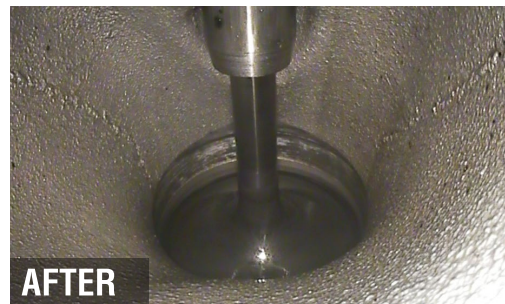
## PERFORMANCE TESTING RESULTS

NOTE: The following images on this vehicle were captured prior to running a full tank of fuel. BG Platinum® 44K® and the residual intake cleaning chemistry will continue to clean after the service has been completed.

### INJECTOR



### INTAKE VALVE



### PISTON TOP



## SUMMARY

- GDI technology offers impressive performance and fuel economy; however, these engines are highly complex and require additional service and preventive maintenance to keep these benefits and prolong the life of the engine, while maximizing fuel economy and vehicle drivability. Frequent carbon cleaning will prevent major issues to the vehicle's engine and fuel system.
- The BG Platinum® Fuel System Service uses specialized tools to administer product directly into the intake plenum through an accessible port that draws a metered vacuum. An ultra-fine mist of potent cleaning chemistry is used to thoroughly coat all surfaces removing the maximum amount of deposits in a single service, including heavy deposits from the backs of intake valves, in combustion chambers, and on injector tips.

[Conducted by BG Proving Ground. 07/09/2019]