**Meets ASE Task:** (A8-B-8) P-1 Diagnose emissions or drivability concerns without stored diagnostic trouble codes; determine needed action.

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

**Fuel Trim Diagnosis**

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 Fuel trim is the computer correction factor that uses the oxygen sensor to determine if more or less fuel needs to be delivered by the fuel injectors. Fuel trim is only available on a scan tool.

**[ ]  1.** Connect a scan tool and select long-term

 fuel trim (LTFT) (block learn) and short-

 term fuel trim (STFT).

**[ ]  2.** Start the engine and operate until normal

 operating temperature and closed loop

 status is achieved.

**[ ]  3.** Record the following cell number and

 LTFT amount:

  **LTFT STFT**

 Idle in Drive (if automatic transmission only) \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 Idle in Park A/C off \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 Idle in Park A/C on \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 3000 RPM in Park \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 Results: Fuel trim should be within plus or minus 10% or within 118-138 if the

 block/integration is displayed as a binary number.

**[ ]  4.** Based on the test results, what is the needed action? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_