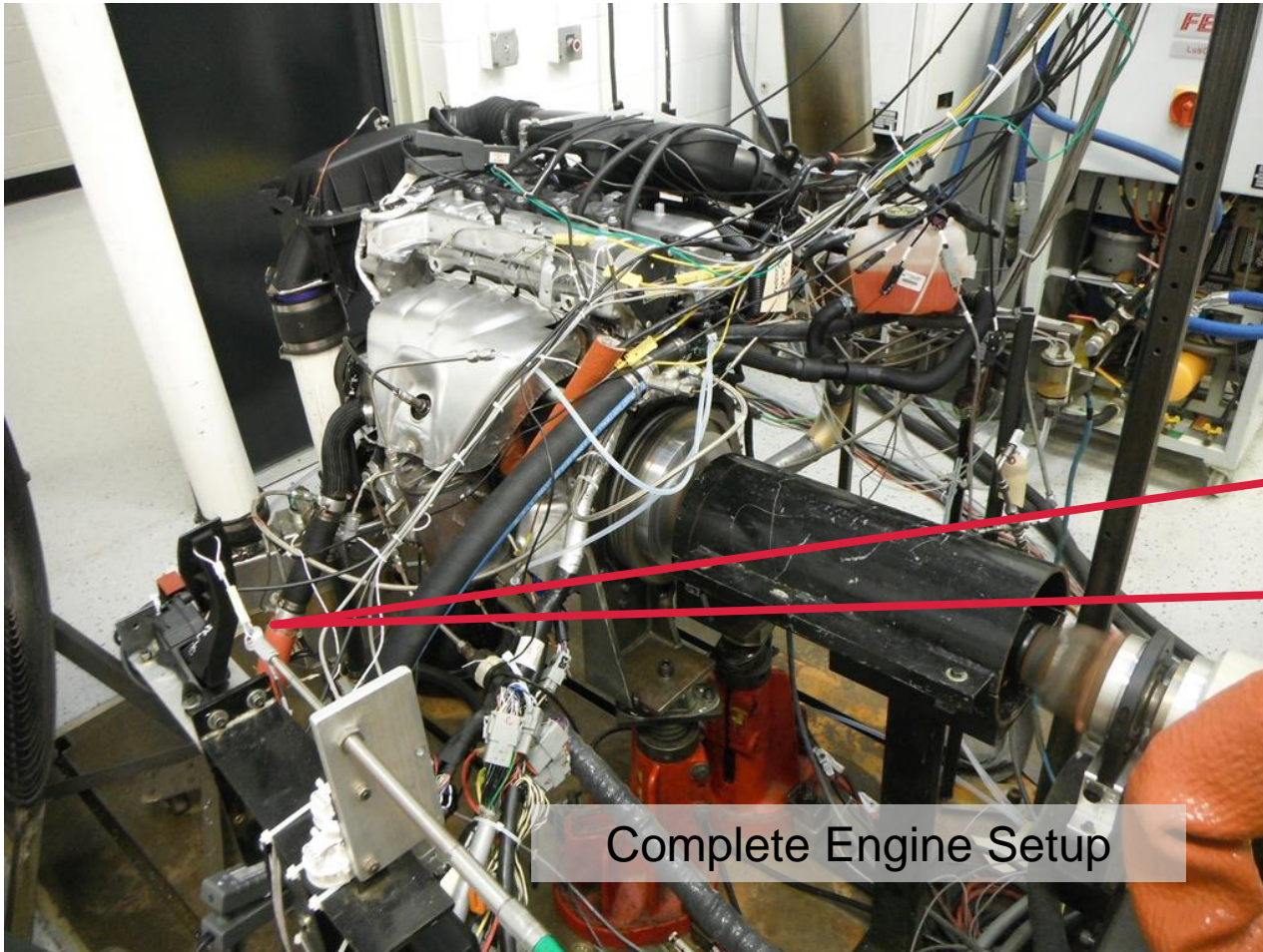


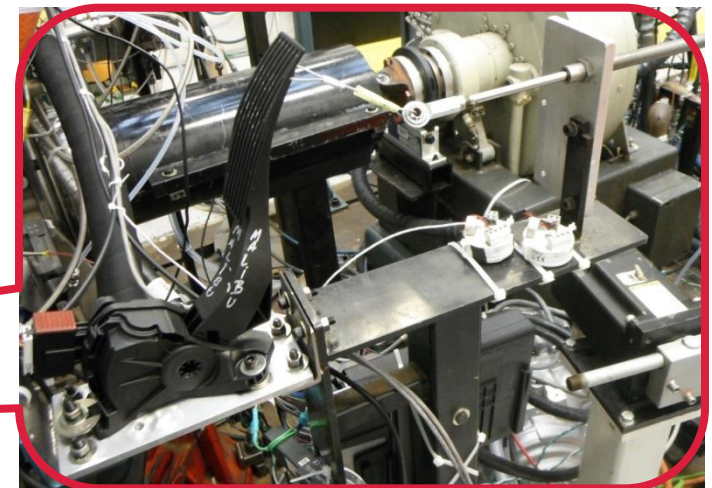
# EPA Benchmarking 2013 Chevy Malibu 2.5L – Project Status Update

Contract No. EP-C-12-014, Work Assignment 1-5  
April 9, 2013

## Test Cell Setup



Complete Engine Setup



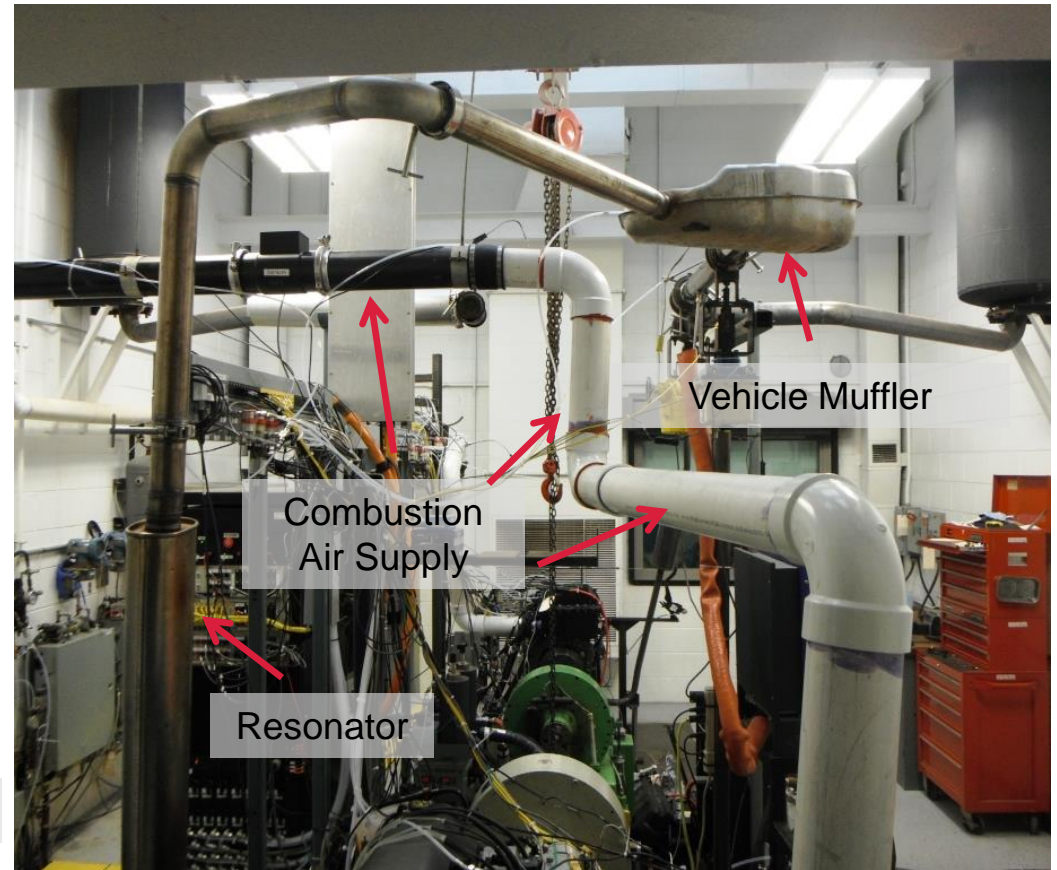
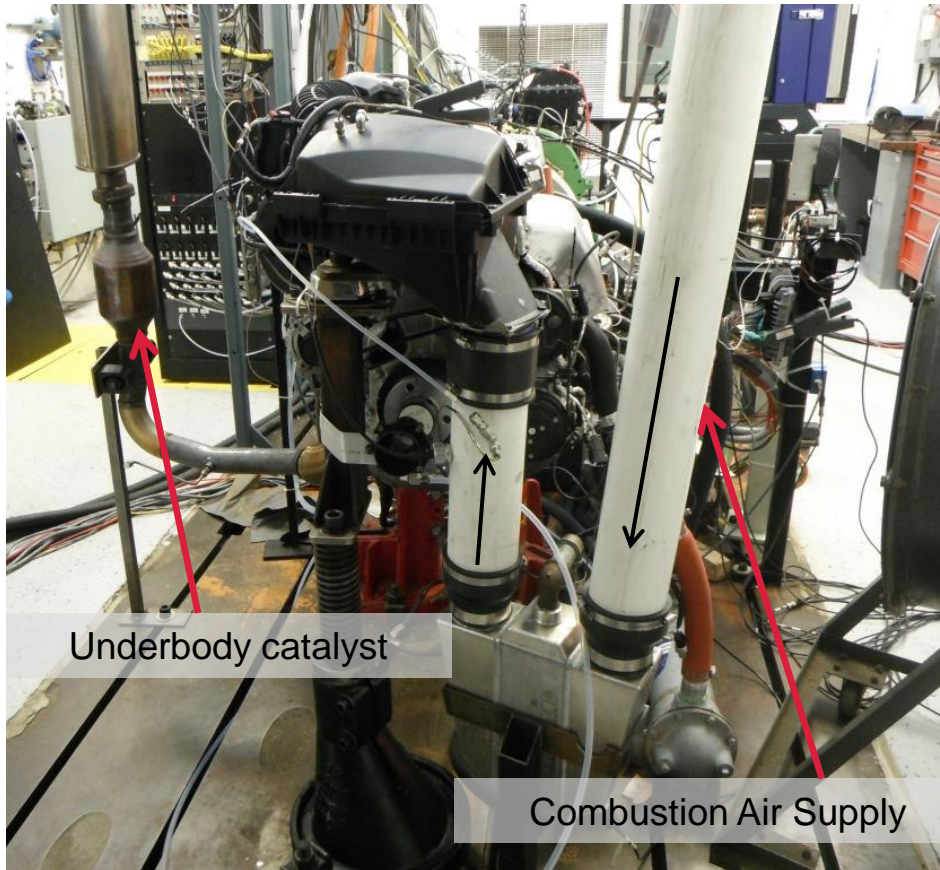
Accelerator Pedal & Controller



# EPA Benchmarking 2013 Chevy Malibu 2.5L – Project Status Update

Contract No. EP-C-12-014, Work Assignment 1-5  
April 9, 2013

## Test Cell Setup

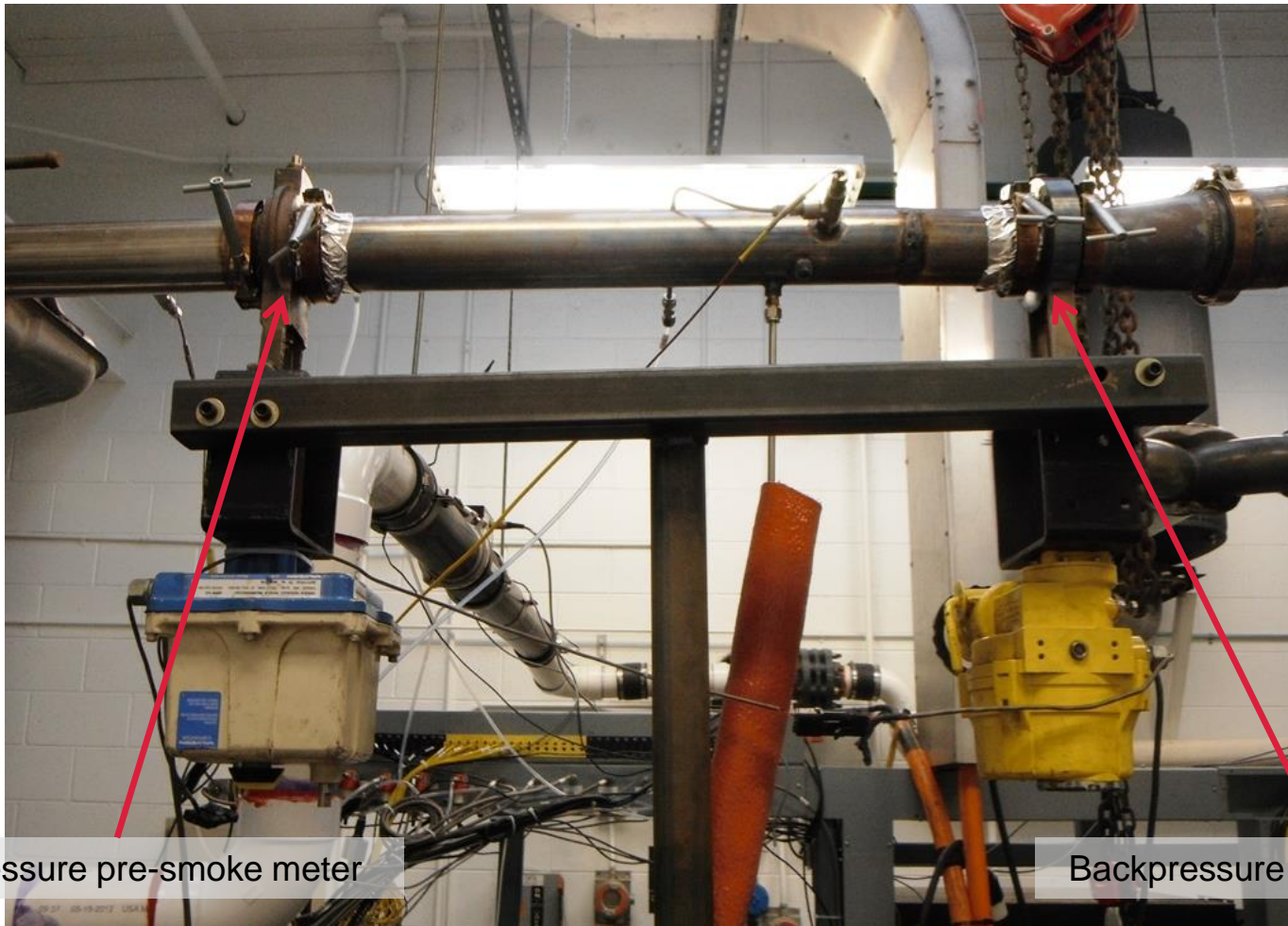


Induction and Exhaust Systems

# EPA Benchmarking 2013 Chevy Malibu 2.5L – Project Status Update

Contract No. EP-C-12-014, Work Assignment 1-5  
April 9, 2013

## Test Cell Setup



Backpressure pre-smoke meter

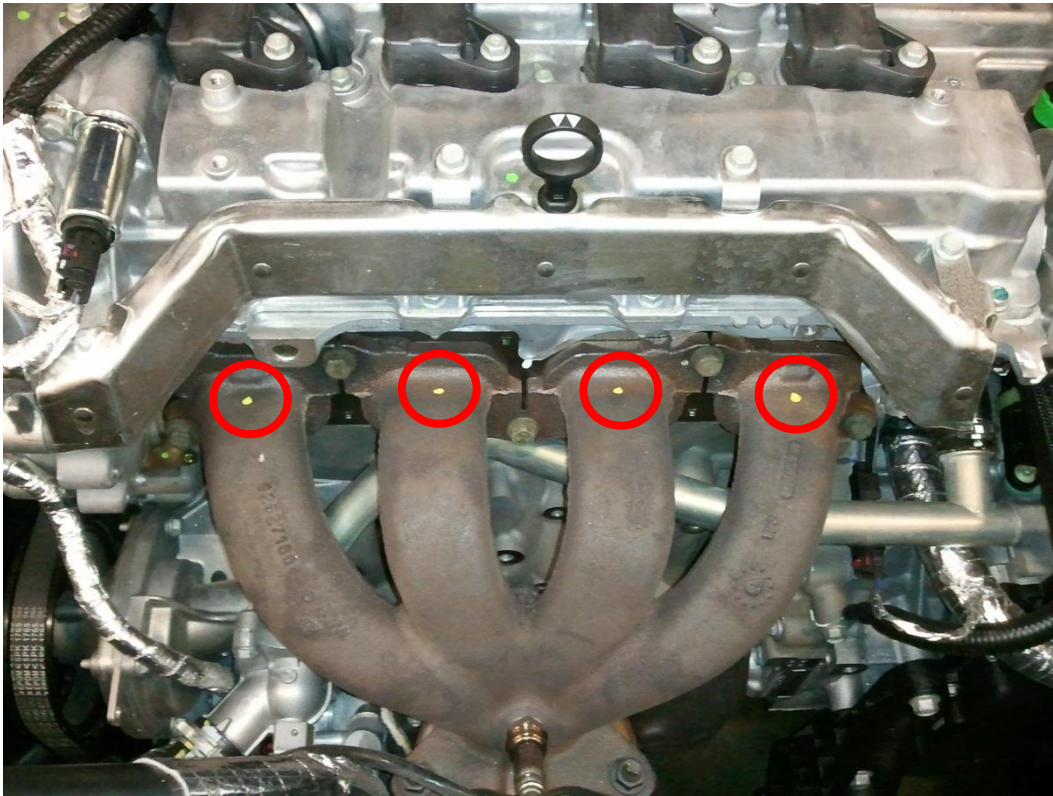
Backpressure post-smoke meter

Exhaust Backpressure Valves

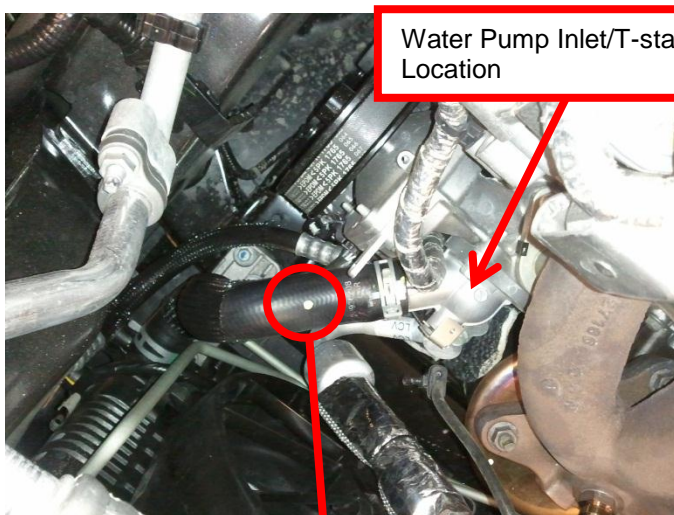


## 2013 Chevy Malibu 2.5L Thermocouple Installation Points

### Exhaust Gas Temps:

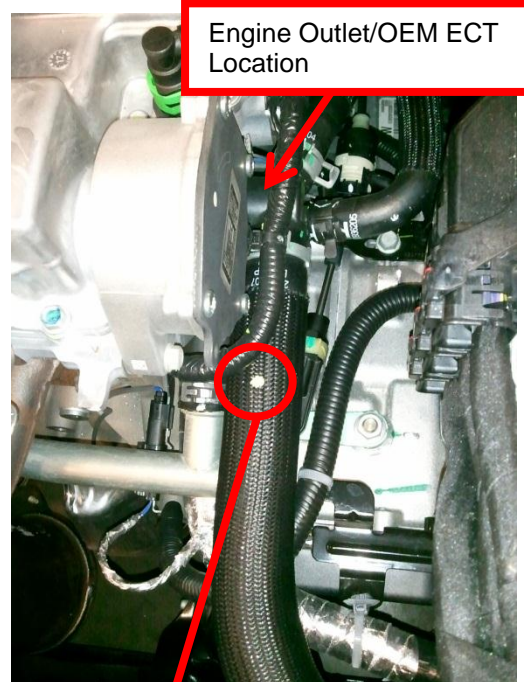


### Engine Coolant Inlet/Outlet Temps:



Water Pump Inlet/T-stat Location

Radiator Outlet Temperature Location



Engine Outlet/OEM ECT Location

Radiator Inlet Temperature Location