

Test = EPA 75

Options = CVS Bag Sec ShowToI Methane MethaneRF

Test Init Start = 16 June 2020 10:35:43      Test Start = 16 June 2020 10:39:02  
Posttest Completed At = 16 June 2020 11:27:53      Test Finish = 16 June 2020 11:19:32  
Hot Soak Start Time = 15 June 2020 11:47:00

Personnel Information::

Driver = REDACTED      Operator = REDACTED  
Requestor =      Supervisor =

Vehicle Information:

VIN = [REDACTED]      Cert Tracking ID = 2964-EC299348  
Vehicle Model = JEEP CHEROKEE      Model Year = 2014  
Engine Family = ECRXT03.05PV      Eng. Disp. = 3.0  
Ignition Status = No      Transmission =  
Automatic = 1      Idle RPM =  
Sample Delay =

Vehicle Conditions:

Soak Start Time: = JUNE 15, 2020 11:47      Ambient Limit Type = OTHER7

Test Specifications:

TO-Number = W0110      CVS BulkStream Flow : = 3) 625 scfm  
TestNet Number = 2964

Dynamometer:

Inertia = 5500 (lb)      Road Load A = 13.93 (lbs)  
Road Load B = 0.4178      Road Load C = 0.02593

Fuel Information:

Fuel = DIE-DJ1621HW10      Specific gravity = 0.8520  
NHV = 18083.00      Fuel R-Factor = 0.60  
CWF = 0.8710      OWF = 0.0000  
HWF = 0.1290      Fuel Calculation Type = Diesel/EPA Calcs

Phase Information:

Shift Tables  
Phase 1      AUTO  
Phase 2      Con't  
Phase 3      AUTO

Response Factors:

Bag Methane = 1.05

Pre Test Remarks:

TEST #1 AS RECEIVED

Post Test Remarks:

Non-Critical Information:

Begin Odo = 86149      Idle RPM =  
Test end Odometer = 86160      Driveability = Good  
Engine performance = No Problem      Brakes = No Problem  
Transmission = No Problem      Vehicle stalls = None

SUMMARY REPORT

Test = EPA 75 Test Id = ONT50886 TestNet Number = 2964  
 Options = CVS Bag Sec ShowTol Methane MethaneRF  
 Test Init Start = 16 June 2020 10:35:43 Fuel Calculation Type = Diesel/EPA Calcs Idle RPM = Driver = **REDACTED**

MASS calculated by DF method

Phase 1 Bag 1	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	FE (mpg)
Range	10.0	50.0	30.0	1.00	10.0		
Sample	8.421	19.076	2.369	0.7516	4.372		
Range	10.0	50.0	30.0	1.00	10.0		
Ambient	3.101	0.859	-0.054	0.0506	2.227		
Net Conc.	5.495	18.266	2.369	0.7039	2.270	3.1180	
Grams/ph.	0.4137	2.7756	0.5558	1681.5312	0.1977	0.2348	21.7165
Grams/mi	0.1149	0.7710	0.1544	467.1256	0.0549	0.0652	

Phase 2 Bag 2	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	FE (mpg)
Range	10.0	50.0	30.0	1.00	10.0		
Sample	5.946	0.754	0.111	0.4253	4.906		
Range	10.0	50.0	30.0	1.00	10.0		
Ambient	3.072	0.770	0.069	0.0520	2.221		
Net Conc.	2.972	0.008	0.045	0.3749	2.755	0.0866	
Grams/ph.	0.3830	0.0021	0.0171	1533.1509	0.4108	0.0112	25.6115
Grams/mi	0.0992	0.0005	0.0044	397.0629	0.1064	0.0029	

Phase 3 Bag 3	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	FE (mpg)
Range	10.0	50.0	30.0	1.00	10.0		
Sample	6.618	0.688	0.046	0.5993	5.697		
Range	10.0	50.0	30.0	1.00	10.0		
Ambient	3.029	0.627	-0.104	0.0522	2.308		
Net Conc.	3.725	0.089	0.046	0.5494	3.493	0.0677	
Grams/ph.	0.2797	0.0135	0.0107	1309.0759	0.3034	0.0051	27.8601
Grams/mi	0.0779	0.0038	0.0030	364.7201	0.0845	0.0014	

Test Summary	THC	CO	NOX	CO2	CH4	NM-HC (wRF)	FE (mpg)
Wtd Results							
Grams g/mi	0.0966	0.1613	0.0351	402.7172	0.0897	0.0154	25.2152
Grams g/mi	0.097	0.16	0.04	403	0.090	0.015	
Phs1&2 gms	0.7967	2.7777	0.5729	3214.6821	0.6085	0.2459	
Phs1&2 g/mi	0.1068	0.3723	0.0768	430.8665	0.0816	0.0330	23.5595
Phs2&3 gms	0.6627	0.0156	0.0278	2842.2268	0.7142	0.0162	
Phs2&3 g/mi	0.0890	0.0021	0.0037	381.4818	0.0959	0.0022	26.6884

----- Dyno Information -----  
 Inertia = 5500  
 Inertia Units = lb  
 Dynamometer will be set manually = False  
 Dyno Coefficient Units = 2  
 Road Load A = 13.93  
 Road Load B = 0.4178  
 Road Load C = 0.02593  
 Use Augmented Braking System? = True

CVS Bag report  
 MASS calculated by DF method

Phase 1 Bag 1	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	FE (mpg)
Range	10.0	50.0	30.0	1.00	10.0		
Sample	8.421	19.076	2.369	0.7516	4.372		
Range	10.0	50.0	30.0	1.00	10.0		
Ambient	3.101	0.859	-0.054	0.0506	2.227		
Net Conc.	5.495	18.266	2.369	0.7039	2.270	3.1180	
Grams/ph.	0.4137	2.7756	0.5558	1681.5312	0.1977	0.2348	21.7165
Grams/mi	0.1149	0.7710	0.1544	467.1256	0.0549	0.0652	

Test Info	Times Info
Baro(inHg) = 28.94	Phase Start = 10:39:02
Temp( F) = 72.3	Phase Finish = 10:47:28
Tdew( F) = 49.8	Analysis End = 10:52:31
Rhum(%) = 50.3	
Ahum(gr/lb) = 61.3	Elapsed (sec) = 506.1
NOX Factor = 0.9396	Bag Fill (sec)= 506.0
	Bag Anl (sec) = 302.8
Vmix(ft3 20 C) = 4610.14	Drv Err (sec) = 0.0
Dilu. Factor = 17.7645	Crank Time = 1.1
Dist(mi) = 3.5997	

Phase 2 Bag 2	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	FE (mpg)
Range	10.0	50.0	30.0	1.00	10.0		
Sample	5.946	0.754	0.111	0.4253	4.906		
Range	10.0	50.0	30.0	1.00	10.0		
Ambient	3.072	0.770	0.069	0.0520	2.221		
Net Conc.	2.972	0.008	0.045	0.3749	2.755	0.0866	
Grams/ph.	0.3830	0.0021	0.0171	1533.1509	0.4108	0.0112	25.6115
Grams/mi	0.0992	0.0005	0.0044	397.0629	0.1064	0.0029	

Test Info	Times Info
Baro(inHg) = 28.94	Phase Start = 10:47:28
Temp( F) = 72.7	Phase Finish = 11:01:57
Tdew( F) = 44.0	Analysis End = 11:06:32
Rhum(%) = 44.4	
Ahum(gr/lb) = 50.5	Elapsed (sec) = 869.5
NOX Factor = 0.8967	Bag Fill (sec)= 870.0
	Bag Anl (sec) = 274.7
Vmix(ft3 20 C) = 7890.96	Drv Err (sec) = 0.0
Dilu. Factor = 31.4617	Stop Time = 0.6
Dist(mi) = 3.8612	

Soak Start = 11:01:57  
 Soak Finish = 11:11:06  
 Elapsed (sec) = 548.7

Phase 3 Bag 3	THC (ppmC)	CO (ppm)	NOX (ppm)	CO2 (%)	CH4 (ppmC)	NM-HC (wRF)	FE (mpg)
Range	10.0	50.0	30.0	1.00	10.0		
Sample	6.618	0.688	0.046	0.5993	5.697		
Range	10.0	50.0	30.0	1.00	10.0		
Ambient	3.029	0.627	-0.104	0.0522	2.308		
Net Conc.	3.725	0.089	0.046	0.5494	3.493	0.0677	
Grams/ph.	0.2797	0.0135	0.0107	1309.0759	0.3034	0.0051	27.8601
Grams/mi	0.0779	0.0038	0.0030	364.7201	0.0845	0.0014	

Test Info	Times Info
Baro(inHg) = 28.94	Phase Start = 11:11:06
Temp( F) = 74.0	Phase Finish = 11:19:32
Tdew( F) = 48.9	Analysis End = 11:24:18
Rhum(%) = 45.8	
Ahum(gr/lb) = 59.1	Elapsed (sec) = 506.2
NOX Factor = 0.9305	Bag Fill (sec)= 506.0
	Bag Anl (sec) = 285.7
Vmix(ft3 20 C) = 4598.18	Drv Err (sec) = 0.0
Dilu. Factor = 22.3342	Crank Time = 1.2
Dist(mi) = 3.5893	

Test Summary	THC	CO	NOX	CO2	CH4	NM-HC (wRF)	FE (mpg)
Wtd Results							
Grams g/mi	0.0966	0.1613	0.0351	402.7172	0.0897	0.0154	25.2152
Grams g/mi	0.097	0.16	0.04	403	0.090	0.015	
Phs1&2 gms	0.7967	2.7777	0.5729	3214.6821	0.6085	0.2459	
Phs1&2 g/mi	0.1068	0.3723	0.0768	430.8665	0.0816	0.0330	23.5595
Phs2&3 gms	0.6627	0.0156	0.0278	2842.2268	0.7142	0.0162	
Phs2&3 g/mi	0.0890	0.0021	0.0037	381.4818	0.0959	0.0022	26.6884

Avg Test Info
Baro(inHg) = 28.94
Temp( F) = 73.0
Tdew( F) = 46.9
Rhum(%) = 46.4
Ahum(gr/lb) = 55.7
NOX Factor = 0.9169

CVS Bag report  
MASS calculated by DF method

Grams To Total (Bags) (gm/mi)			
	Bag1	Bag2	Bag3
THC	0.0238	0.0514	0.0214
CO	0.1600	0.0003	0.0010
NOX	0.0320	0.0023	0.0008
NM-HC (wRF)	0.0135	0.0015	0.0004

Legend  
\* denotes Unstable Reading  
(wRF) denotes with Response Factor  
(wRF) denotes without Response Factor

DATA VALIDATION

PARAMETER DESCRIPTION	VALUE OF PARAMETER	LIMIT OF PARAMETER
Temperature	VALID	68 - 86 (degF)
Barometer	VALID	26.99 - 33.0001 (inHg)
Dew Point	VALID	-20 - 200 (degF)
Absolute Humidity	VALID	0 - 150 (gr/lb)
Crank Time	VALID	5 (sec)
Restart Attempts	VALID	1
Shutdown Time	VALID	5 (sec)
Pretest Soak Time	VALID	12 - 36 (hr)
Phase Length	VALID	2 (%)
Distance	VALID	2 (%)
Test Hold Conditions	VALID	60 (sec)
Leak Check	VALID	1
Bag Analysis Time	VALID	1200 (sec)
Bag Fill Time	VALID	5 (sec)
Ambient Bag Readings	VALID	THC -0.55 - 10 (ppm) CO -0.55 - 15 (ppm) NOX -0.55 - 2 (ppm) CO2 350 - 850 (ppm) CH4 -0.55 - 10 (ppm)
Sample Bag Readings	VALID	THC -0.55 (ppm) CO -0.55 (ppm) NOX -0.55 (ppm) CO2 350 (ppm) CH4 -0.55 (ppm)
Bag Read Sequence	VALID	Stabilization Time (T2) 10 (sec) Integration Time (T3) 3 (sec) Stability Time Out (T4) 30 (sec) Stability Chk Tolerance 2 (%)
Bag Zero/Span Sequence	VALID	Pre-Bag Z/S Offset 25 (%) Pre-Bag Zero Drift 1 (%) Post-Bag Z/S Drift 2 (%) Stabilization Time (T2) 10 (sec) Integration Time (T3) 3 (sec) Stability Time Out (T4) 30 (sec) Stability Chk Tolerance 2 (%)
Hot Soak Length	VALID	540 - 660 (sec)
Analyzer Overscale	VALID	10 (sec)
Venturi Inlet Temperature	VALID	32 - 300 (degF)