





**Audit Inspection Report**  
**Module 3 – Analyzer Gas Audit**

Facility Name \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ am pm  
 Facility Address \_\_\_\_\_ Facility Number \_\_\_\_\_  
 Test System Number \_\_\_\_\_ Serial Number \_\_\_\_\_  
 Software Version Number \_\_\_\_\_ Auditor Name \_\_\_\_\_

		Initial test			Retest after calibration of the analyzer			
P	F	Check	Standard (S)	Allowed error	High limit	Measured	Low Limit	
		Leak check fails uncapped						
		Leak check passes capped						
		Zero air	HC ppm					
			CO %					
			CO2 %					
			NO ppm					
			O2					
		O2	O2					
		Low	HC ppm					
			CO %					
			CO2 %					
			NO ppm					
		Mid #1	HC ppm					
			CO %					
			CO2 %					
			NO ppm					
		Mid #2	HC ppm					
			CO %					
			CO2 %					
			NO ppm					
		High	HC ppm					
			CO %					
			CO2 %					
			NO ppm					

Comments: \_\_\_\_\_  
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Auditor \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

**Audit Inspection Report**  
**Module 4 – RPM Measurement Audit**

Facility Name \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ am pm  
 Facility Address \_\_\_\_\_ Facility Number \_\_\_\_\_  
 Test System Number \_\_\_\_\_ Serial Number \_\_\_\_\_  
 Software Version Number \_\_\_\_\_ Auditor Name \_\_\_\_\_

P	F	Probe Type	Reference (R)	Measured (M)	Difference (D = R-M)	% Difference (100 x D/R)	Tolerance
		Inductive	700				± 3.0%
		Inductive	2500				± 3.0%
		Antenna					± 3.0%
		Antenna					± 3.0%
							± 3.0%
							± 3.0%
		Protocol or vehicle used:					
		OBDII connector in good condition and connected					
		OBDII Connector	700				± 3 or 10%
		OBDII Connector	2500				± 3 or 10%

Comments: \_\_\_\_\_  
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Auditor \_\_\_\_\_  
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 Signature \_\_\_\_\_ Date \_\_\_\_\_





**Audit Inspection Report**  
**Module 7 – Pressure Tester Audit**

Facility Name \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ am pm  
 Facility Address \_\_\_\_\_ Facility Number \_\_\_\_\_  
 Test System Number \_\_\_\_\_ Serial Number \_\_\_\_\_  
 Software Version Number \_\_\_\_\_ Auditor Name \_\_\_\_\_

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P	F	Checks
		All tank adapters available
		Calibration device(s) available
		Passes the pass standard tool setting
		Fails the fail standard tool setting

Comments: \_\_\_\_\_  
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Auditor \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

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**Audit Inspection Report**  
**Module 8 – OBDII Tester Audit**

Facility Name \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ am pm  
 Facility Address \_\_\_\_\_ Facility Number \_\_\_\_\_  
 Test System Number \_\_\_\_\_ Serial Number \_\_\_\_\_  
 Software Version Number \_\_\_\_\_ Auditor Name \_\_\_\_\_

P	F	Checks						
		Power to On time:						
		On to Run time:						
		Protocol:						
		OBD Level:						
		I/M Monitors	Set			Read		
			Complete	Not Complete	Unsupported	Complete	Not Complete	Unsupported
		Misfire						
		Fuel System						
		Component						
		Catalyst						
		Heated Catalyst						
		EVAP System						
		Secondary Air						
		A/C Sys Refrig						
		Oxygen Sensor						
		O2 Sensor Heater						
		EGR System						
		MIL	ON		OFF		OFF	
		Commanded						
		DTC's	Set			Read		
		1						
		2						
		3						
		4						
		5						
		6						

Comments: \_\_\_\_\_  
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Auditor \_\_\_\_\_  
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 Signature \_\_\_\_\_ Date \_\_\_\_\_



**Audit Inspection Report**  
**Module 9 – Flow and Dilution VMAS Audit**

Facility Name \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ am pm  
 Facility Address \_\_\_\_\_ Facility Number \_\_\_\_\_  
 Test System Number \_\_\_\_\_ Serial Number \_\_\_\_\_  
 Software Version Number \_\_\_\_\_ Auditor Name \_\_\_\_\_

P	F	Hose Off Flow Check		
		Factory Flow Rate (ACFM)	Measured Flow Rate (ACFM)	% Difference

P	F	Dilute O2 Sensor Check							
		Check	Cylinder Conc. (%)	Conc. at 60 sec	Conc. at 65 sec	Conc. at 70 sec	High Limit (Cyl + 0.3)	Avg. Analyzer Conc. (%)	Low Limit (Cyl - 0.3)
		15% O2							
		8% O2							

P	F	SAO Annual Flow Audit				
		Barometric pressure (inches Hg):				
		Ambient temperature (degrees C):				
		SAO calibration constant (SAO <sub>c</sub> ):				
		Trial #	Manometer Pressure (inches of water)	VMAS Flow (SCFM)	SAO Flow (SCFM)	% Difference
		1- Max flow				
		2 - Approx 225 SCFM				
		3- Mid-point				

Comments: \_\_\_\_\_  
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Auditor \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

**Audit Inspection Report**  
**Module 1 – Test System Visual Audit**

Facility Name Example Date 12/25/99 Time 10:15 am pm  
Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
Test system Number AB123456 Serial Number 1234567890  
Software Version Number MA1.07 Auditor Name MJ Reinner

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P	F	Check
x		All pieces of equipment are properly housed
x		All pieces of equipment are clean and orderly
x		Vehicle restraints are present
x		There are no signs of tampering
x		The gas cap checker is connected to the test system
x		The dynamometer is connected to the test system and power
x		The VMAS unit is properly connected to the test system and power

Comments: \_\_\_\_\_  
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Auditor MJ Reinner 12-25-1999  
Signature Date

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**Audit Inspection Report**  
**Module 2 – Weather Station Audit**

Facility Name \_\_\_\_\_ Example \_\_\_\_\_ Date 12/25/99 Time 10:15 am pm  
 Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
 Test system Number AB123456 Serial Number 1234567890  
 Software Version Number MA1.07 Auditor Name MJ Reinner

P	F	Check	Measured (M)	Standard (S)	Difference (D = S-M)	Limit
	x	Temperature	73	68	5	±4.0 deg F
x		Humidity	34	36	2	±4.0% RH
x		Barometric pressure	30.03	30.00	0.03	±3.0% pt

Comments: Temperature sensor end is bent.

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Auditor MJ Reinner 12-25-1999  
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 Signature Date

**Audit Inspection Report**  
**Module 3 – Analyzer Gas Audit**

Facility Name Example Date 12/25/99 Time 10:15 am pm  
 Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
 Test system Number AB123456 Serial Number 1234567890  
 Software Version Number MA1.07 Auditor Name MJ Reinner

Initial test				Retest after calibration of the analyzer				
P	F	Check	Standard (S)	Allowed error	High limit	Measured	Low Limit	
X		Leak check fails uncapped						
X		Leak check passes capped						
X		Zero air	HC ppm	1	9	10	2	-8
X			CO %	0.00	0.02	0.02	0.00	-0.02
X			CO2 %	0.1	0.3	0.4	0.1	-0.2
X			NO ppm	6	25	31	25	-19
X			O2	20.9	1.1	22.0	20.9	19.8
X		O2	O2	1.0	0.1	1.1	1.0	0.9
X		Low	HC ppm	200	8	208	192	192
X			CO %	0.50	0.02	0.52	0.50	0.48
X			CO2 %	6.0	0.3	6.3	6.1	5.7
X			NO ppm	300	28	328	280	272
X		Mid #1	HC ppm	910	39	949	908	871
X			CO %	2.40	0.10	2.50	2.40	2.30
X			CO2 %	3.6	0.3	3.9	3.6	3.3
	X		NO ppm	900	46	946	835	854
X		Mid #2	HC ppm	1920	78	1998	1952	1842
	X		CO %	4.80	0.20	5.00	4.50	4.60
	X		CO2 %	7.2	0.3	7.5	6.5	6.9
	X		NO ppm	1800	92	1892	1680	1708
X		High	HC ppm	3200	131	3331	3123	3069
X			CO %	8.00	0.33	8.33	8.02	7.67
X			CO2 %	12.0	0.5	12.5	12.2	11.5
X			NO ppm	3000	153	3153	2890	2847

Comments: Analyzer still fails significantly after recalibration, cause unknown.

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Auditor MJ Reinner 12-25-1999  
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 Signature Date

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**Audit Inspection Report**  
**Module 4 – RPM Measurement Audit**

Facility Name Example Date 12/25/99 Time 10:15 am pm  
 Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
 Test system Number AB123456 Serial Number 1234567890  
 Software Version Number MA1.07 Auditor Name MJ Reinner

P	F	Probe Type	Reference (R)	Measured (M)	Difference (D = R-M)	% Difference (100 x D/R)	Tolerance
X		Inductive	700	720	20	2.9	±3.0%
X		Inductive	2500	2509	9	0.4	±3.0%
X		Antenna	800	820	20	2.5	±3.0%
X		Antenna	2500	2450	50	2.0	±3.0%
							±3.0%
							±3.0%
		Protocol or vehicle used: VPW					
X		OBDII connector in good condition and connected					
	X	OBDII Connector	700	820	120	17.1	±3 or 10%
X		OBDII Connector	2500	2550	50	2.0	±3 or 10%

Comments: \_\_\_\_\_  
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Auditor MJ Reinner 12-25-1999  
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 Signature Date

**Audit Inspection Report**  
**Module 5 – Dynamometer Audit**

Facility Name \_\_\_\_\_ Example \_\_\_\_\_ Date 12/25/99 Time 10:15 am pm  
Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
Test system Number AB123456 Serial Number 1234567890  
Software Version Number MA1.07 Auditor Name MJ Reinner

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P	F	N/A	Automated test
x			Coast-down check
		x	IHPSE check (transient testing only)

Comments: \_\_\_\_\_

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Auditor	<u>MJ Reinner</u>	<u>12-25-1999</u>
	Signature	Date

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**Audit Inspection Report**  
**Module 7 – Pressure Tester Audit**

Facility Name \_\_\_\_\_ Example \_\_\_\_\_ Date 12/25/99 Time 10:15 am pm  
Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
Test system Number AB123456 Serial Number 1234567890  
Software Version Number MA1.07 Auditor Name MJ Reinner

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P	F	Checks
x		All tank adapters available
x		Calibration device(s) available
x		Passes the pass standard tool setting
x		Fails the fail standard tool setting

Comments: \_\_\_\_\_  
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Auditor MJ Reinner 12-25-1999  
Signature Date

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**Audit Inspection Report**  
**Module 8 – OBDII Tester Audit**

Facility Name Example Date 12/25/99 Time 10:15 am pm  
 Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
 Test system Number AB123456 Serial Number 1234567890  
 Software Version Number MA1.07 Auditor Name MJ Reinner

P	F	Checks									
		Power to On time:	15								
		On to Run time:	30								
		Protocol:	VPW								
		OBD Level:	OBD & OBDII								
		I/M Monitors	Set			Read					
			Complete	Not Complete	Unsupported	Complete	Not Complete	Unsupported			
X		Misfire	X			X					
X		Fuel System	X			X					
X		Component	X			X					
X		Catalyst	X			X					
X		Heated Catalyst		X			X				
X		EVAP System	X			X					
X		Secondary Air	X			X					
	X	A/C Sys Refrig			X		X				
X		Oxygen Sensor		X			X				
X		O2 Sensor Heater			X			X			
X		EGR System	X			X					
		MIL	ON		OFF		ON		OFF		
X		Commanded	X				X				
		DTC's	Set			Read					
X		1	P0301			P0301					
X		2	P0606			P0606					
X		3	P0781			P0781					
		4									
		5									
		6									

Comments: \_\_\_\_\_  
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Auditor MJ Reinner Date 12-25-1999  
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 Signature Date

**Audit Inspection Report**  
**Module 9 – Flow and Dilution VMAS Audit**

Facility Name Example Date 12/25/99 Time 10:15 (am)pm  
 Facility Address 123 Anywhere Street, Lowell Facility Number 002589  
 Test system Number AB123456 Serial Number 1234567890  
 Software Version Number MA1.07 Auditor Name MJ Reinner

P	F	Hose Off Flow Check		
		Factory Flow Rate (SCFM)	Measured Flow Rate (SCFM)	% Difference
X		423	403	4.7

P	F	Dilute O2 Sensor Check							
		Check	Cylinder Conc. (%)	Conc. at 60 sec	Conc. at 65 sec	Conc. at 70 sec	High Limit (Cyl + 0.3)	Avg. Analyzer Conc. (%)	Low Limit (Cyl - 0.3)
X		15% O2	15.13	15.20	15.10	15.03	15.43	15.11	14.83
	X	8% O2	7.98	8.30	8.35	8.43	8.28	8.36	7.68

P	F	SAO Annual Flow Audit							
		Barometric pressure (in Hg):			30.03				
		Ambient temperature (degrees C):			22.1				
		SAO calibration constant (SAO <sub>c</sub> ):			2513				
		Trial #	Manometer Pressure (inches of water)		VMAS Flow (SCFM)		SAO Flow (SCFM)		% Difference
X		1- Max flow	10.02		360.4		357.8		0.7
X		2 - Approx 225 SCFM	6.39		227.3		228.2		0.4
	X	3- Mid point	8.24		263.1		294.2		10.6

Comments: \_\_\_\_\_  
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Auditor

MJ Reinner

12-25-1999

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Date