## <u>Audit Inspection Report</u> <u>Module 1 – Test System Visual Audit</u>

Fac	acility Name			Date	Time	am pm		
Fac	ilit	y Address			Facility Number			
Tes	t S	ystem Numbe	er	Serial N	lumber			
Sof	twa	are Version N	umber	Auditor	Name			
P	F			Check				
		All pieces of equip	ment are properly housed					
		All pieces of equip	ment are clean and orderly	y				
		Vehicle restraints a	are present					
		There are no signs	of tampering					
		Any evaporative en	missions test equipment (f	or the fuel cap or the vehicle	e) is properly connected to the te	st system		
		The dynamometer	is properly connected to the	ne test system and power				
		The VMAS unit is	properly connected to the	test system and power				
	Auditor							
			Signature	;	Date			

## <u>Audit Inspection Report</u> <u>Module 2 – Weather Station Audit</u>

Fa	cilit	y Name	I	Date	Time	am pm
Fa	cilit	y Address			_ Facility Number	
Te	st S	ystem Number		Serial Nu	mber	•
So	ftwa	are Version Number		Auditor N	Name	
					-	
P	F	Check	Measured (M)	Standard (S)	Difference (D = S-M)	Limit
		Temperature				±4.0 deg F
		Humidity				±4.0% RH
		Barometric pressure				±3.0% pt
~	•					
Con	nmer	nts:				
	A	Auditor				
			Signature		Date	

## <u>Audit Inspection Report</u> <u>Module 3 – Analyzer Gas Audit</u>

Fa	cilit	y Nam	e		Date	Date Time a			
Fa	cilit	y Addı	ess			Fac	cility Number		
Te	st S	ystem :	Number		Se	erial Numbe			
			- sion Num	ber		Auditor Name			
	Initi	ial test		1	Retes	t after calibration o	f the analyzer		
P	F		Check	Standard (S)	Allowed error	High limit	Measured	Low Limit	
			k check fails un						
		Leal	k check passes of	capped			1		
		Zero air	HC ppm						
			CO %						
			CO2 %						
			NO ppm						
			O2						
		O2	O2						
		Low	HC ppm						
			CO %						
			CO2 %						
			NO ppm						
		Mid	HC ppm						
		#1	CO %						
			CO2 %						
			NO ppm						
		Mid	HC ppm						
		#2	CO %						
			CO2 %						
			NO ppm						
		High	HC ppm						
			CO %						
			CO2 %						
			NO ppm						
		I	I.	l .	1		1		
Con	nmen	its:							
	A	uditor							
				Signatu	re		Date		
				C					

## <u>Audit Inspection Report</u> <u>Module 4 – RPM Measurement Audit</u>

Fa	cilit	y Name		Date	Ti	am pm	
Fa	cilit	y Address			Facility	Number	_
Te	st S	ystem Number		Serial	Number		
		are Version Number			or Name		
		_			<del>-</del>		
	1	T	T .	I . I		T	I
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%
	A	AuditorSi	gnature			Date	
		Si	gnature			Date	

## <u>Audit Inspection Report</u> <u>Module 5 – Dynamometer Audit</u>

Fa	cilit	y Nar	ne	Date	Time	am pm			
Fa	cilit	y Ado	dress		Facility Number				
Te	st S	ystem	Number	Serial	Number				
So	ftwa	are Ve	ersion Number						
P	F	N/A	A						
P	Г	N/A	Automated test  Coast-down check						
			IHPSE check (transient testing only)						
Con	nmen	ıts:							
	A	uditor							
			Signature		Date				
			Signatule		Date				

## <u>Audit Inspection Report</u> <u>Module 6 – Gas Cap Tester Audit</u>

Fa	cilit	y Name	Date	Time	am pm
Fa	cilit	y Address		Facility Number	
Te	st S	ystem Number	Serial	Number	
So	ftwa			" Nome	
	1_	T			
P	F	Checks			
		All gas cap adapters available			
		Calibration device/caps available			
		Passes the pass cap			
		Fails the fail cap			
Con	nmer	nts:			
	A	auditor			
		Signatur	·e	Date	
		Signatui	. ~	Date	

## <u>Audit Inspection Report</u> <u>Module 7 – Pressure Tester Audit</u>

Fa	cilit	y Name	Date	Time	am pm
Fa	cilit	y Address		Facility Number	
Te	st S	ystem Number	Serial N		
		are Version Number	Auditor	Name	
P	F	Checks			
	F	All tank adapters available			
		Calibration device(s) available	_		
		Passes the pass standard tool setting			
		Fails the fail standard tool setting			
~					
Con	nmen	its:			
					· · · · · · · · · · · · · · · · · · ·
	A	auditor			
		Signature		Date	

## <u>Audit Inspection Report</u> <u>Module 8 – OBDII Tester Audit</u>

Fa	cilit	y Name			Date	T	`ime _		am pm	
Fa	cilit	y Address	<u> </u>			Facility	y Numl	ber	<u> </u>	
					Sorial 1	— Number	,			
		ystem Number								
So	ftwa	are Version Nu	ımber _		Audito	r Name				
P	F	Checks								
		Power to On time:								
		On to Run time:								
		Protocol:								
		OBD Level:								
		I/M Monitors		Set				ead		
			Complete	Not Complete	Unsupported	Complete	Not Cor	mplete	Unsupported	
		Misfire								
		Fuel System								
		Component								
		Catalyst								
		Heated Catalyst								
		EVAP System								
		Secondary Air								
		A/C Sys Refrig								
		Oxygen Sensor								
		O2 Sensor Heater								
		EGR System	01	<u> </u>	OFF.	011			OFF	
		MIL	ON	١	OFF	ON	OFF			
		Commanded		C - 4						
		DTC's		Set						
		2								
		3								
		4								
		5								
		6								
		0	<u> </u>							
Con	nmer	nts:								
<b>C</b> 01.		103								
	Α	Auditor								
			S	ignature			Date			

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

Fa	Facility Name					_ Date		]	Γime	am pm
Fa	cilit	y Addres	ss				Fa	cilit	y Number	
Te	st S	ystem Ni	umber			Seria	l Numbe	er		
			on Numbe	r		Audi	tor Name	e		
		1								
P	F	Hose Off F	Flow Check					1		
		Factor	y Flow Rate (AC	CFM)	Measu	red Flow Rate (A	CFM)		% Differ	ence
	l _	I								
P	F	Dilute O2	Sensor Check Cylinder	Conc. at	Conc. a	at Conc. at	High Lit	mit	Avg. Analyzer	Low Limit
		Check	Conc. (%)	60 sec	65 sec		(Cyl + 0		Conc. (%)	(Cyl - 0.3)
		15% O2								
8% O2										
P	F	SAO Annu	ıal Flow Audit							
		Barometric	pressure (inche	es Hg):						
		Ambient te	emperature (deg	rees C):						
		SAO calibi	ration constant (							
		Ti	rial #	Manometer (inches o		VMAS F (SCFM			AO Flow (SCFM)	% Difference
		1- Max flo	w							
		2 - Approx	225 SCFM							
		3- Mid-poi	nt							
							•		•	
Con	nmen	nts:								
	A	uditor								
				Signa	ture				Date	

## <u>Audit Inspection Report</u> <u>Module 1 – Test System Visual Audit</u>

Fac	Facility Name		Example	Da	ite _	12/25/99	Time	10:15 (am)pm	
Fac	cilit	y Address	123 Anywhe	ere Street, L	owell	Facility	Number	002589	
Te	st sy	rstem Number	AB123456		Seri	al Number	1	234567890	
So	ftwa	re Version Nun	nber MA1	.07	Aud	litor Name	MJ Re	einner	
					_				
P	F			(	Check				
Х		All pieces of equipme	nt are properly hou	used					
Х		All pieces of equipme	nt are clean and or						
X Vehicle restraints are present									
Χ		There are no signs of	tampering						
Χ		The gas cap checker is	s connected to the	test system					
Χ		The dynamometer is o							
X The VMAS unit is p			operly connected to	the test system ar	nd powe	r			
Comments:									
					·				
	A	uditor	MJ Reinner			12-25-1999			
			Signa	ture		Date			

#### <u>Audit Inspection Report</u> <u>Module 2 – Weather Station Audit</u>

Fa	cilit	y Name	Exampl	le	Date	12/25	5/99	Time _1	0:15 (am)pm
Fa	cilit	y Address	123 Anyv	vhere Stree	t, Lowel	<u> </u> Fa	acility	Number	002589
Te	st sy	stem Number	AB12345	6	Ser	ial Nu	mber	1234567890	
So	ftwa	are Version Nun	nber M	A1.07	1.07 Auditor Name			MJ Reir	nner
P	F	Check		Measured (M)	Standa	ırd (S)	Differ	rence (D = S-M	) Limit
	Х	Temperature		73	6	8		5	±4.0 deg F
Х		Humidity		34	3	6		2	±4.0% RH
Х	X Barometric pressure			30.03	30.	00		0.03	±3.0% pt
Con	nmen	ts:Tempera	ture senso	r end is ben	<u>t.</u>				
	A	uditor	einner				12-25-19	199	
			Sig	nature				Date	

#### <u>Audit Inspection Report</u> <u>Module 3 – Analyzer Gas Audit</u>

					Date		_			
Fa	cilit	y Addr	ess	123 Anywher	e Street, Low	ell Facility	y Number	002589		
Te	st sy	stem l	Number _	AB123456	Se	erial Number	123	34567890		
So	ftwa	are Ver	sion Num	ber MA1.0	)7 A	uditor Name	MJ Rein	ner		
	Initi	ial test			× Retes	t after calibration of	the analyzer			
P	F		Check	Standard (S)	Allowed error	High limit	Measured	Low Limit		
Х		Leal	k check fails un	capped	L			_1		
Х		Leal	k check passes	capped						
Х		Zero	HC ppm	1	9	10	2	-8		
Х		air	CO %	0.00	0.02	0.02	0.00	-0.02		
Х			CO2 %	0.1	0.3	0.4	0.1	-0.2		
Х			NO ppm	6	25	31	25	-19		
Х			O2	20.9	1.1	22.0	20.9	19.8		
Х		O2	O2	1.0	0.1	1.1	1.0	0.9		
Х		Low	HC ppm	200	8	208	192	192		
Х			CO %	0.50	0.02	0.52	0.50	0.48		
Х			CO2 %	6.0	0.3	6.3	6.1	5.7		
Х			NO ppm	300	28	328	280	272		
Х		Mid	HC ppm	910	39	949	908	871		
Х		#1	CO %	2.40	0.10	2.50	2.40	2.30		
Х			CO2 %	3.6	0.3	3.9	3.6	3.3		
	Х		NO ppm	900	46	946	835	854		
Х		Mid	HC ppm	1920	78	1998	1952	1842		
	Х	#2	CO %	4.80	0.20	5.00	4.50	4.60		
	Х		CO2 %	7.2	0.3	7.5	6.5	6.9		
	Х		NO ppm	1800	92	1892	1680	1708		
Х		High	HC ppm	3200	131	3331	3123	3069		
Х			CO %	8.00	0.33	8.33	8.02	7.67		
Х			CO2 %	12.0	0.5	12.5	12.2	11.5		
Х			NO ppm	3000	153	3153	2890	2847		
Com	nmen	ts: <u>A</u>	nalyzer sti	ill fails signif	icantly after r	ecalibration,	cause unknov	<u>vn.</u>		
	A	uditor		MJ Rein	iner		12-25-19	99		
	Signature Date									

#### <u>Audit Inspection Report</u> <u>Module 4 – RPM Measurement Audit</u>

Facility Name Example			Example	Date 1	2/25/99 Ti	ime 10:15	(am)pm		
Facility Address 123 Anywh			123 Anywhere Stre	et, Lowell	Facility Nu	umber	02589		
Te	st sy	stem Number	AB123456	Serial Number 1234567890					
			nber MA1.07		tor Name	MJ Reinner			
					_				
P	F	Probe Typ	Reference (R)	Measured (M)	Difference (D = R-M)	% Difference (100 x D/R)	Tolerance		
Х		Inductive	700	720	20	2.9	±3.0%		
Х		Inductive	2500	2509	9	0.4	±3.0%		
Х		Antenna	800	820	20	2.5	±3.0%		
Х		Antenna	2500	2450	50	2.0	$\pm3.0\%$		
							$\pm3.0\%$		
							$\pm 3.0\%$		
		Protocol or vehicle use	ed: VPW						
Х		OBDII connector in go	ood condition and connected						
	Х	OBDII Connector	700	820	120	17.1	±3 or 10%		
Х		OBDII Connector	2500	2550	50	2.0	±3 or 10%		
	A	uditor	MJ Reinner Signature		12	2-25-1999 Date			

## <u>Audit Inspection Report</u> <u>Module 5 – Dynamometer Audit</u>

Facility Name				Exa	ample	Dat	e 12	2/25/99	Time	10:15 (am)pm			
Fa	cilit	y Add	dress	123 Anywhere Street, Lo			owell Facility Number 002			002589			
Te	st sy	stem	Number	AB123456			Serial Number 1234			234567890			
So	ftwa	are Ve	ersion Nun	mber MA1.07			Auditor Name MJ			inner			
P	F	N/A	Automated te	est									
X Coast-down check													
		Х	IHPSE check	(transien	it testing only)								
Con	nmen	its:											
	A	uditor		M	IJ Reinner				12-25-1	999			
					Signature				Date				

## Audit Inspection Report Module 6 – Gas Cap Tester Audit

Facility Name				ımple	Date	12/25/99	Time	10:15 (am)pm		
Fa	Facility Address 123 Anywhere Stre					Facility	Number	002589		
Te	st sy	stem Number	AB12	3456	Se	Serial Number 12345678				
So	ftwa	are Version Nu	ımber	MA1.07	Αι	uditor Name	MJ Re	einner		
Б	F	CI I								
P	Г	Checks  All gas cap adapter	e available							
X		Calibration device/		le.						
X		Passes the pass cap								
	Х	Fails the fail cap								
		1								
~		5								
Con	ımen	ts: <u>Reteste</u>	<u>d severa</u>	l times, fails re	epeated	<u>Iy</u>				
	A	uditor	M	J Reinner			12-25-1	1999		
<del>-</del>				Signature			Date			

#### <u>Audit Inspection Report</u> <u>Module 7 – Pressure Tester Audit</u>

Facility Name Example				Date	12/25/99	Time 10	0:15 <b>(am)</b> pm	
Fac	ilit	y Address	123 Anywhere Stree	eet, Lowell Facility Number 002589				
Tes	t sy	rstem Number	AB123456	Serial Number 1234567890				
		re Version Nun	mber MA1.07	— Au	ditor Name	MJ Rein	ner	
<b>n</b>	-	GL 1						
P	F	Checks  All tank adapters avai	ilabla					
×		Calibration device(s)						
X		Passes the pass standa						
Х		Fails the fail standard						
			J					
~								
Com	men	ts:						
	A	uditor	MJ Reinner			12-25-19	99	
			Signature			Date		

#### <u>Audit Inspection Report</u> <u>Module 8 – OBDII Tester Audit</u>

Facility Name		Exam	ple		Date _	12/25/99	Time	10:15	(am)pm			
Facility Address			123 Anywhere Street, Lov			et, Lowell	Facility	Numbe	er	002589		
Te	st sy	stem Number	AB1234	56		Seria	Serial Number 1234567890					
So	ftwa	are Version Nu	mber N	ЛА1.07		— Aud	Auditor Name MJ Reinner					
			_					-				
P	F	Checks										
		Power to On time:	15									
		On to Run time:	30									
		Protocol:	VPW									
		OBD Level:	OBD & OB									
		I/M Monitors			et				Read			
			Complete	Not Com	plete	Unsupporte	ed Complete	e Not	Complete	Unsupported		
Χ		Misfire	Х				Х					
Χ		Fuel System	Х				Х					
Χ		Component	Х				Х					
Χ		Catalyst	Х				Х					
Χ		Heated Catalyst		Х					Χ			
Χ		EVAP System	Х				Х					
Χ		Secondary Air	Х				Х					
	Χ	A/C Sys Refrig				Х			Χ			
Χ		Oxygen Sensor		Х					Х			
Χ		O2 Sensor Heater				Х				Х		
Χ		EGR System	Х				Х					
		MIL	ON	N .		OFF		ON		OFF		
Χ		Commanded	Х					Х				
		DTC's		S	let				Read			
Χ		1		PO	301			P0301				
Χ		2		PO	606			P0606				
Χ		3		PO	781			P0781				
		4										
		5										
		6										
Con	nmen	ts:										
	Δ	uditor	MJ	Reinne	er			12-25	-1999			
Auditor				MJ Reinner Signature				Date				

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

Facility Name Example				Example		Date 1	2/25/99	Time 10	):15 <u>(am)</u> pm	
Fac	cility	y Addres	s 12	3 Anywh	ere Stre	et, Lowell	Facility	y Number	002589	
Te	st sy	stem Nu	mber Al	3123456		Serial	_ Number	123	4567890	
So	ftwa	re Versi	on Numbe	r MA1	1.07	— Audit	or Name	MJ Reinr	ner	
P	F	Hose Off Flow Check								
		Factor	y Flow Rate (SO	CFM)	Measure	ed Flow Rate (So	CFM)	% Di	fference	
Χ			423			403			4.7	
P	F	Dilute O2 S	Sensor Check	_						
		Check	Cylinder Conc. (%)	Conc. at 60 sec	Conc. at 65 sec	Conc. at 70 sec	High Lim (Cyl + 0.3			
Χ		15% O2	15.13	15.20	15.10	15.03	15.43	15.11	14.83	
	Х	8% O2	7.98	8.30	8.35	8.43	8.28	8.36	7.68	
P	F	SAO Annu	al Flow Audit							
		Barometric	pressure (in H	g):	30.03					
		Ambient te	mperature (deg	rees C):	22.1					
		SAO calibr	ation constant (	(SAO <sub>c</sub> ):	2513					
		Tı	rial #		er Pressure of water)	VMAS FI (SCFM)		SAO Flow (SCFM)	% Difference	
Χ		1- Max flo	W	10.	02	360.4		357.8	0.7	
Χ		2 - Approx	225 SCFM	6.3	39	227.3		228.2	0.4	
	Χ	3- Mid poir	nt	8.2	.24 263.1			294.2 10.6		
Con	nmen	ts:								
	Αι	uditor		MJ Rei	nner			12-25-199	9	
<del></del>				Signat	ture	Date				