Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 6/3/2014

CEE Project Number:
1300006-9

Prepared for:
TAO TAO, USA

Report Prepared by:

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 6-13-14

Test Vehicle

Test Vehicle: EDV 7
Engine Family: DTAOXO.12A1T
Vehicle Model: ATA125-D
VIN Number: L5NAAHTJXD1024218


THIS VEHICLE IS CERTIFIED TO OPERATE ON UNLEADED
MADE IN CHINA

Test Procedures and Equipment

The ATA125-D off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
    a. Horiba Model FIA 220
    b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
    a. Methane analyzed by a Bendix GC
    b. Horiba Model FIA 220 Analyzer
    c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
    a. Horiba Model AlA 210 (High Range)
    b. Ranges: 0.5%, 2%
    c. Horiba Model AlA 220 (Low Range)
    d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
    a. Horiba Model AlA 220
    b. Ranges: 2, 4%
4. NOx (CLD)
    a. Horiba Model CLA 220
    b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its "as-received" condition only on the basis that the vehicle's air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.

Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005315	6/3/2014	0.212	0.285	0.497	2.233
Multiplicative Deterioration Factors (provided by TaoTao)				1.019	1.000
Full Useful Life Emissions				0.506	2.233

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: ATA110B

Vehcile Color: RED

Last Six of Vin# 024218

Received at CEE Time: 11:35

Received by: L P Swiencki

Receipant Signature: L. Swiencki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle/ATV check-in procedure

PJ# 1300006-9

	As Received	Adjusted
Check vehicle VIN#. 4SNAAHTJXD1024218		
Check Engine Family# DTA0X0.049AIT		
Check oil level	Full	
Check Spark plug gap	0.6	
Check Valve clearance-intake	.005	
exhaust	.005	
Check Tire pressure	24psi	
Check battery voltage	12V	
Start unit and let idle check RPM	NA	
Send to Lab		

Tech. L Lewinski

Date 5-19-14

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-9

Make: TAO TAO Model ATA110B

Vin#. LSNAAHTJXD1024218 Year: 2013

Odometer: NA Color: Red

Displace: 110 CC Fuel System: 1 X 1V

Trans: Auto PCV: X Yes ____ No

Fuel Cap. 2.3L = 0.6 gal X 50% .3

Eng. Fam. PTADXD.049AIT Evap Fam. ____

Curb Wt. 185 lbs = 83.9 + 80 > 163.9 KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.000 C 0.0241

Special Instructions: ____

TaoTao Project Work Sheet

Project # 1300006-4 EDV # 7

Vin# LSNAAHTJXD1024218 Req. Miles 250KM

Work Required	Date Completed	Tech.
Check-in	5-19-14	
Pictures	5-19-14	
Durability 250KM	5-30-14	
Precondition	6-2-14	
Test CVS75FTP	6-3-14	
Data QA/QC	6-3-14	
Release		

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 130006-9
Make: TAO TAO
VIN# LSNAAHTJXD1024218

CLIENT: TAO TAO
MODEL: ATA110B
ENG. FAM: DTA0X0.049AIT

YEAR: 2013

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS	
5-19-14	11 8 00	5:00	0	80		JAMES		
5-20-14	8:00	5:00	80	250		JAMES		

COMMENTS: _____

EPA-001381

CX105

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
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TEST NUMBER	V6005315	DATE	06-03-2014	RANGE	AUTO
VEHICLE REF	1300006-9	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJXD1024218	ENGINE FAM.	DTA0X0.049A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	260.6Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS	W.O.T.				
REMARKS	LOW SPEED TRACE				
START TIME	09:24:22	END TIME	10:05:48	FINAL ODO.	275.5KM

#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtrl
1	Ready	0.000	0.000	0.3	0.0 for 0.0	112.2 for -2.4	1
2	Delay 10	0.000	0.000	10.0	0.0 for 0.0	223.0 for -75.8	1
3	Ready	0.000	0.000	0.4	0.0 for 0.0	361.5 for -24.0	281
4	Crank	0.000	0.000	5.0	0.0 for 0.0	458.6 for -33.8	795
5	Phase 1	2.688	4.320	505.0	0.0 for 0.0	1415.4 for 1.3	787
6	Phase 2	3.888	6.249	864.0	0.0 for 0.0	1594.7 for -70.1	1831
7	Eng Off	0.000	0.000	3.8	0.0 for 0.0	1667.8 for -1.9	1835
8	Phase 2	0.000	0.000	5.0	0.0 for 0.0	1736.1 for -23.2	1827
9	Soak+bl	0.000	0.001	15.0	0.0 for 0.0	1834.3 for -31.7	775
10	Soak	0.015	0.024	525.0	0.0 for 0.0	0.0 for 0.0	2
11	Ready	0.001	0.002	30.5	0.0 for 0.0	0.0 for 0.0	3
12	Crank 3	0.000	0.000	1.4	0.0 for 0.0	0.0 for 0.0	835
13	Phase 3	2.706	4.349	505.0	0.0 for 0.0	0.0 for 0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for 0.0	0.0 for 0.0	3
15	Bags	0.000	0.000	1.0	0.0 for 0.0	0.0 for 0.0	7

TEST COMPLETED 2470.8 SECONDS DVT= 266.2

PHASE 1	THC	CO	NOx	CO2	NMHC				
SAMPLE	29.54	55.3	8.9	0.188	2.6	Tdry=	72.0	Tdp =	51.2
AMBIENT	4.63	1.0	0.4	0.043	1.9	BARO.=	753.50	SEC =	510.4
GRAMS	1.160	5.091	1.204	214.66	1.125	NoxKf=	0.919	VOLc=	2842.8
GMS/MI	0.431	1.894	0.448	79.86	.418	M.P.G.	105.84	DF =	68.199
G/Mwgt	0.076	0.333	0.079	14.04	.073	MPGnhv	107.06	MI =	2.688
						R-H =	47.90	KM =	4.320

PHASE 2	THC	CO	NOx	CO2	NMHC				
SAMPLE	20.15	90.2	7.6	0.156	2.8	Tdry=	72.4	Tdp =	51.1
AMBIENT	4.35	1.1	0.5	0.044	1.9	BARO.=	753.50	SEC =	872.8
GRAMS	1.259	14.287	1.718	283.76	1.190	NoxKf=	0.918	VOLc=	4862.6
GMS/MI	0.324	3.675	0.442	72.98	.306	M.P.G.	111.70	DF =	80.223
G/Mwgt	0.162	1.837	0.221	36.49	.153	MPGnhv	112.60	MI =	3.888
						R-H =	47.10	KM =	6.249

PHASE 3	THC	CO	NOx	CO2	NMHC				
SAMPLE	22.69	136.8	9.8	0.184	3.0	Tdry=	70.5	Tdp =	50.2
AMBIENT	4.34	1.5	0.0	0.047	1.9	BARO.=	753.50	SEC =	506.4
GRAMS	0.848	12.578	1.363	201.28	.798	NoxKf=	0.911	VOLc=	2819.1
GMS/MI	0.313	4.648	0.504	74.38	.294	M.P.G.	107.79	DF =	67.017
G/Mwgt	0.073	1.087	0.118	17.40	.068	MPGnhv	108.57	MI =	2.706
						R-H =	48.60	KM =	4.349

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WEIGHTED	THC	CO	NOX	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.340	3.589	0.457	74.52	.323	M.P.G.	109.70	NHVmpg	110.636
GRAMS/KM	0.212	2.233	0.285	46.36	.201	L/100k	2.14	NHVkpl	47.040

****

CEE Quality Audit
Accept ✓ Reject
Date 6-3-14 By:

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005315	DATE	06-03-2014	RANGE	AUTO
VEHICLE REF	1300006-9	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJXD1024218	ENGINE FAM.	DTA0X0.049A1	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	260.6Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS	W.O.T.				
REMARKS					

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	31.72	52.9	9.3	0.197	2.71	09:33:33
ZERO	set	-0.04	-0.3	0.1	0.003	0.02	09:34:33
OFFSET 10% Lim		-0.0	-0.0	+0.3	+0.1	+0.0	
SPAN	set	98.23	956.6	28.3	1.996	49.97	09:35:34
OFFSET 10% Lim		-0.2	+0.9	+2.7	+3.0	+3.5	
ZERO	set	-0.10	1.0	0.1	0.000	-0.01	09:36:35
AMBIENT1	read	4.63	1.0	0.4	0.043	1.95	09:37:35
SAMPLE1	read	29.54	55.3	8.9	0.188	2.65	09:38:35
ZERO	chek	-0.06	0.1	0.0	-0.001	0.00	09:39:35
SPAN	chek	98.56	955.0	27.3	1.932	47.80	09:40:35
SPAN VALUES		98.40	948.0	27.5	1.935	48.20	END # 1

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	20.57	90.7	7.4	0.162	2.47	09:48:06
ZERO	set	-0.05	0.1	0.2	0.002	0.02	09:49:06
OFFSET 10% Lim		-0.1	+0.0	+0.7	+0.1	+0.0	
SPAN	set	98.89	956.7	27.7	1.985	49.63	09:50:07
OFFSET 10% Lim		+0.5	+0.9	+0.7	+2.5	+2.8	
ZERO	set	-0.32	0.6	0.2	0.000	0.00	09:51:08
AMBIENT2	read	4.35	1.1	0.5	0.044	1.97	09:52:08
SAMPLE2	read	20.15	90.2	7.6	0.156	2.81	09:53:08
ZERO	chek	-0.30	-0.2	0.2	0.000	0.00	09:54:08
SPAN	chek	97.77	954.0	27.3	1.938	48.17	09:55:08
SPAN VALUES		98.40	948.0	27.5	1.935	48.20	END # 2

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	23.26	130.9	9.7	0.188	3.09	10:06:17
ZERO	set	-0.07	-0.2	0.4	0.001	0.02	10:07:17
OFFSET 10% Lim		-0.1	-0.0	+1.3	+0.0	+0.0	
SPAN	set	98.72	956.3	26.6	1.987	50.04	10:08:18
OFFSET 10% Lim		+0.3	+0.8	-3.0	+2.6	+3.7	
ZERO	set	-0.34	0.9	-0.2	0.002	-0.01	10:09:19
AMBIENT3	read	4.34	1.5	0.0	0.047	1.97	10:10:19
SAMPLE3	read	22.69	136.8	9.8	0.184	3.02	10:11:19
ZERO	chek	-0.40	0.2	-0.3	0.001	-0.01	10:12:19
SPAN	chek	97.96	949.3	27.9	1.936	47.73	10:13:32
SPAN VALUES		98.40	948.0	27.5	1.935	48.20	END # 3

CEE Quality Audit
Accept ✓ Reject
Date 6-3-14 By:

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005315

Make:	TAO TAO	Eng. Fam:	DTAOXO.049A1T
Model:	ATA110B	Evap Fam:	
Year:	2013	Date:	June 3, 2014
VIN:	L5NAAHTJXD1024218	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.30
DF	68.20
V-Mix	2842.80
Miles	2.69
Km	4.33
Nox kf	0.92

Phase II Inputs	
Ambient	0.00
Sample	0.40
DF	80.22
V-Mix	4862.60
Miles	3.89
Km	6.26
Nox kf	0.92

Phase III Inputs	
Ambient	0.00
Sample	0.50
DF	67.02
V-Mix	2819.10
Miles	2.71
Km	4.35
Nox kf	0.91

Phase I Results	
N2Oconc	0.300
N2O mass	0.044
g/mi	0.016
g/km	0.010
g/m wgt	0.007
g/km wgt	0.004

Phase II Results	
N2Oconc	0.400
N2O mass	0.101
g/mi	0.026
g/km	0.016
g/m wgt	0.026
g/km wgt	0.016

Phase III Results	
N2Oconc	0.500
N2Omass	0.073
g/mi	0.027
g/km	0.017
g/m wgt	0.015
g/km wgt	0.010

Total N2O in Grams per mile	**0.04837025**
Total N2O in Grams per kilometer	**0.03005588**

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft^3 (1.83 kg/m^3), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.
$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1{,}000{,}000)$
(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment
PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

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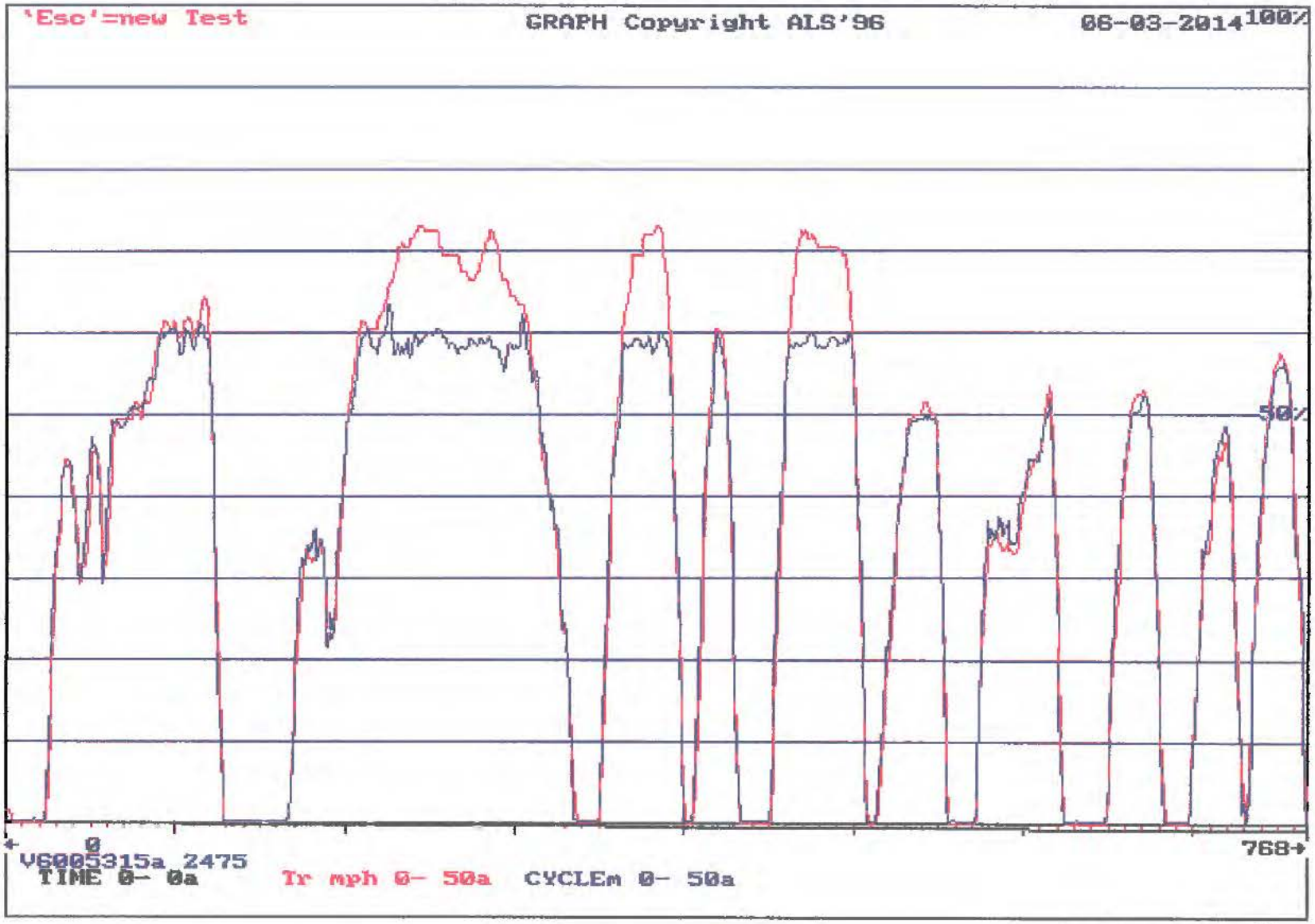
Date 6-3-14 By



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Date 6-3-14 By:

CX105

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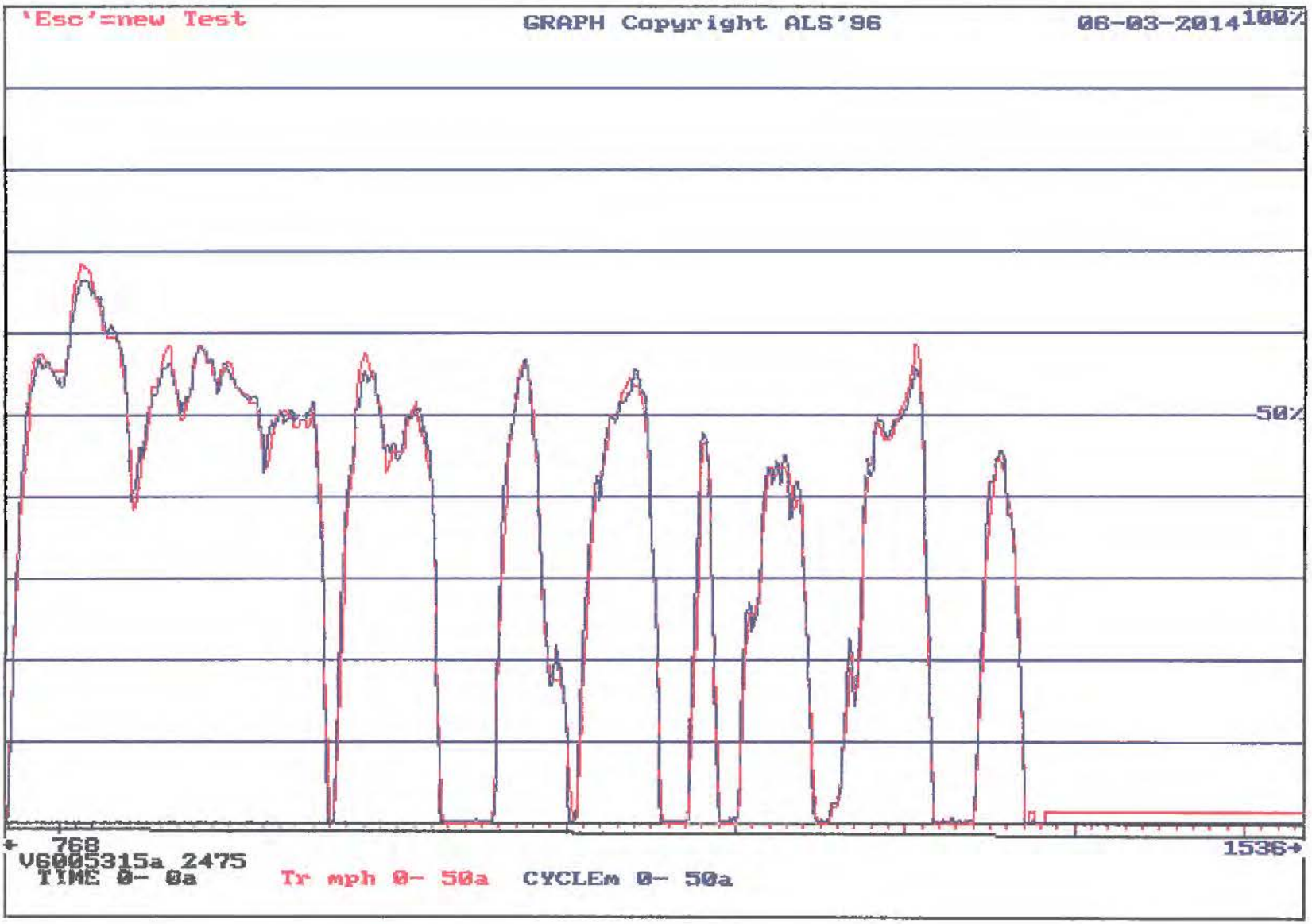
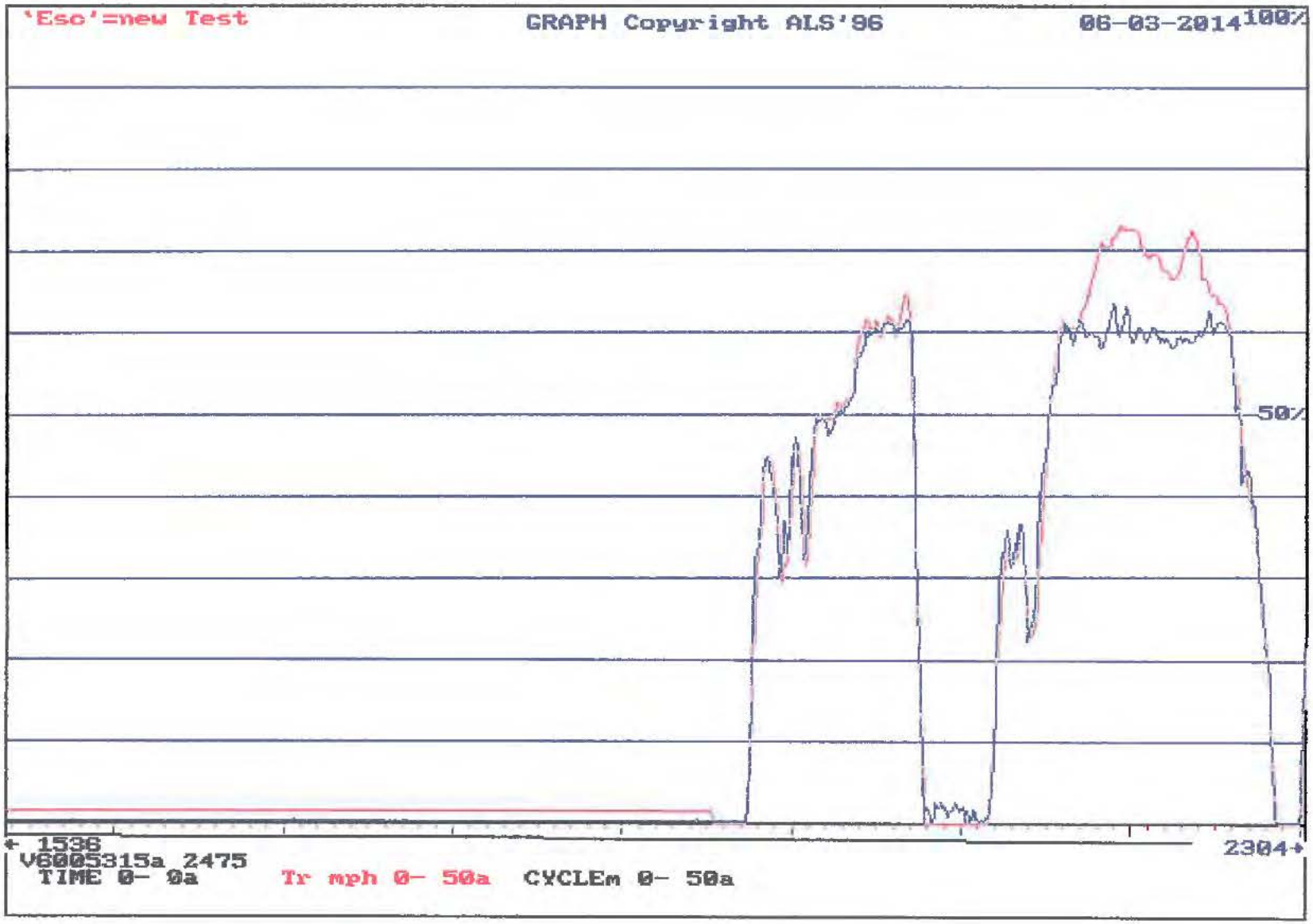


CX105

EPA-001387



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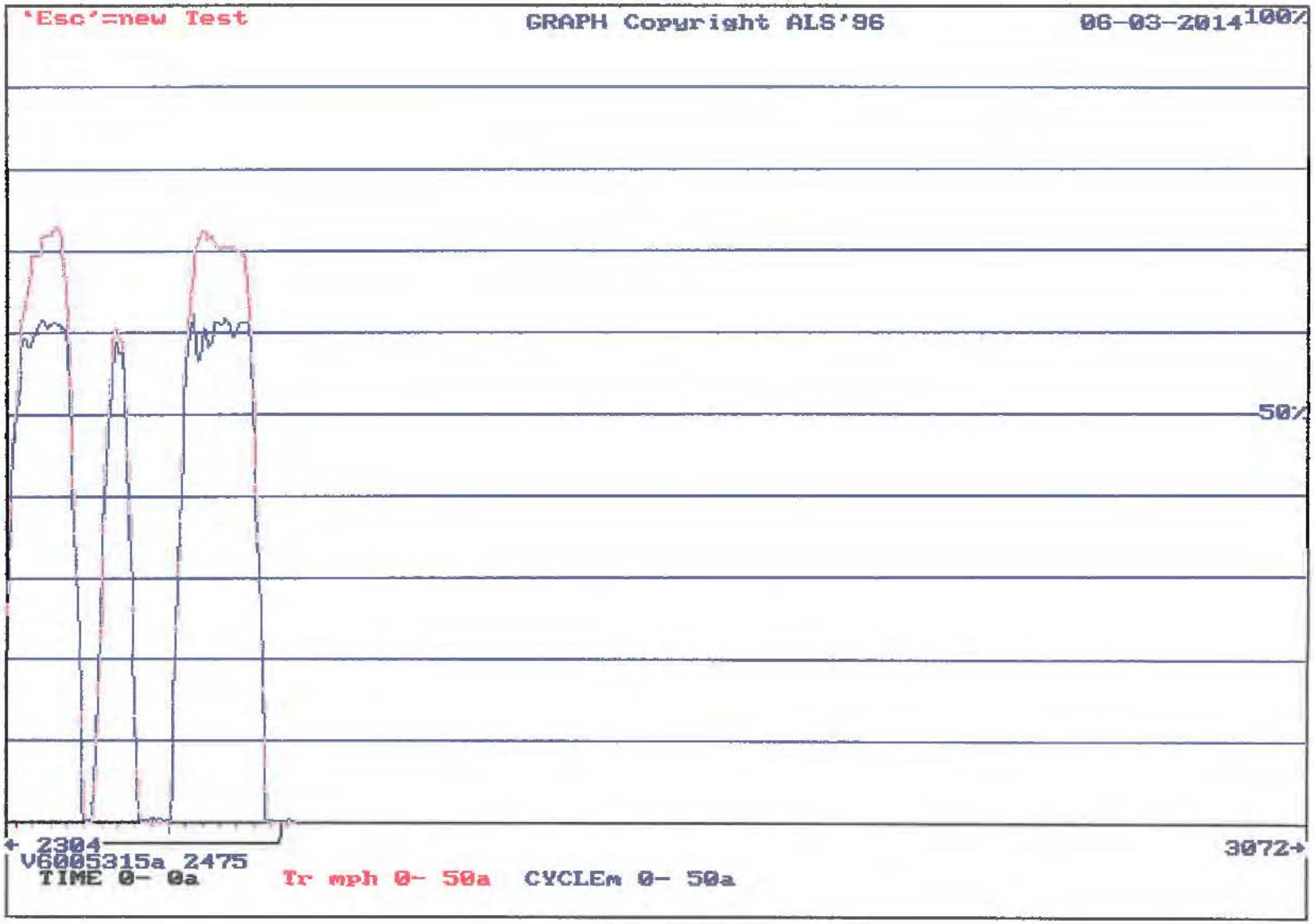


CX105

EPA-001389

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

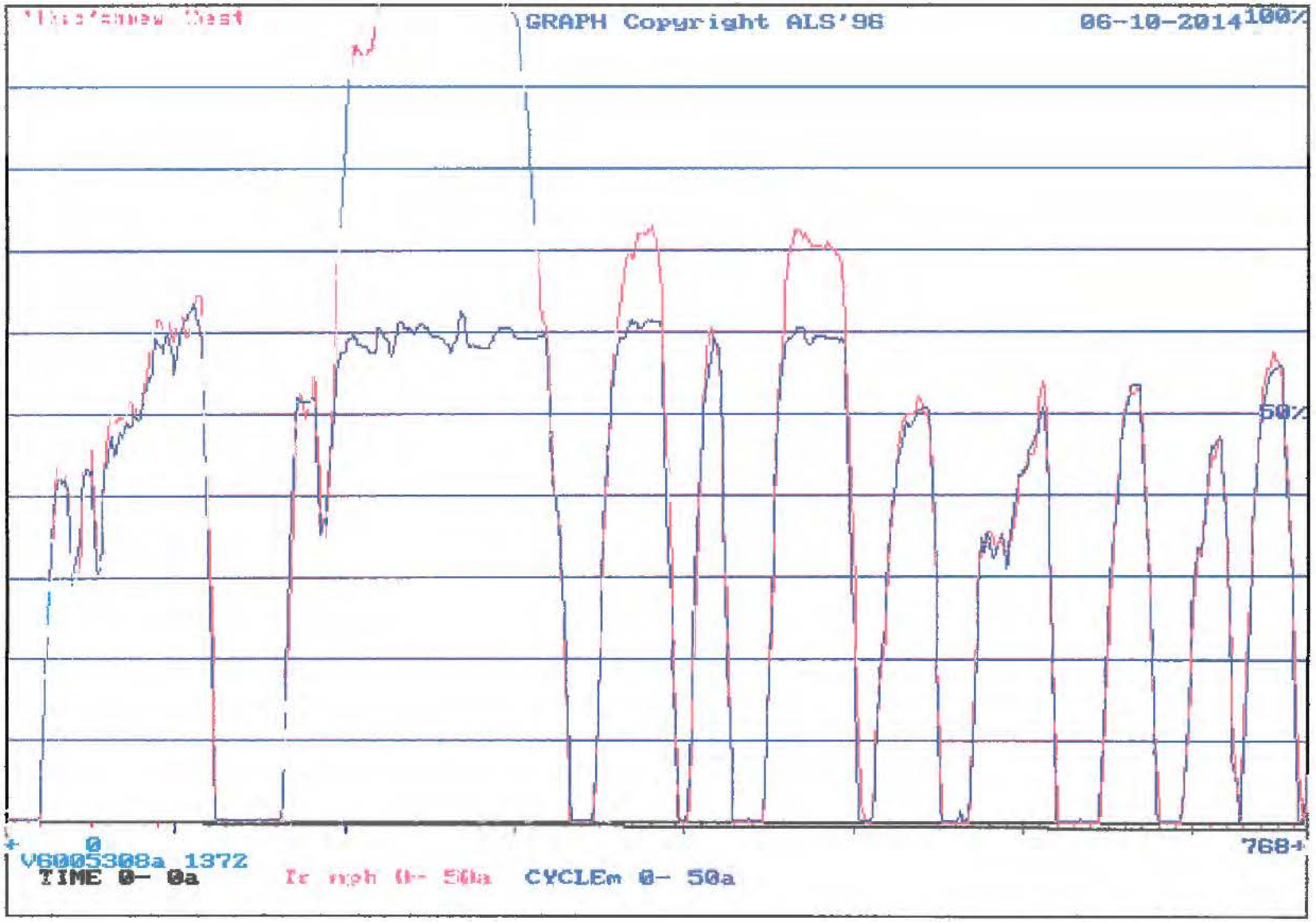
TEST NUMBER	V6005308	DATE	06-02-2014	RANGE	AUTO
VEHICLE REF	1300006-9	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJXD1024218	ENGINE FAM.	DTA0X0.049A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH .MCH	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_H	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	250Km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS	W.O.T.				
REMARKS	LOW SPEED TRACE				
REMARKS					
START TIME	09:33:12	END TIME	09:56:05	FINAL ODO.	260.6KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	crank	0.000	0.000	1.0	0.0 for	0.0	195.6 for	-115.5	531
2	phase 1	2.779	4.466	505.0	0.0 for	0.0	364.8 for	-2.9	531
3	phase 2	3.816	6.134	867.0	0.0 for	0.0	371.0 for	-11.7	531
4	end	0.000	0.000	0.0	0.0 for	0.0	460.8 for	-30.7	1
5	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
6	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
7	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
8	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	end	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 161.5
PHASE 1 6.595 10.600 1373.0 VOLUME= 7637.6

REMARKS
REMARKS
REMARKS

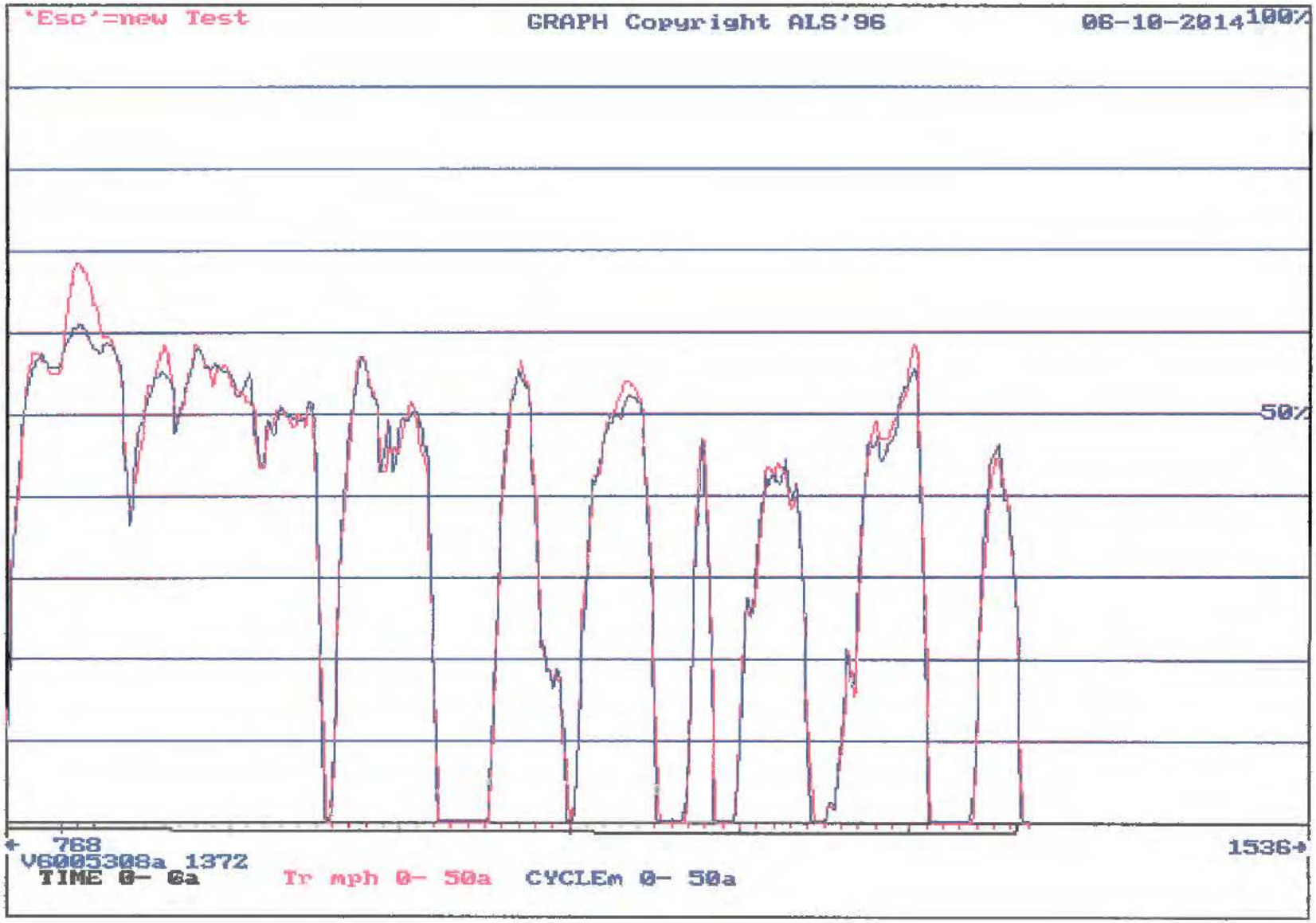
CEE Quality Audit
Accept ✓ Reject
Date 6-3-14 By: [signature]



CEE Quality Audit
Accept
Reject
Date 6-3-14
By:

CX105

EPA-001391



CX105

EPA-001392

Deterioration Factors page extracted from the certification application for

Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 6/27/2014

CEE Project Number:
1300006-10

Prepared for:
TAO TAO, USA

Report Prepared by:

Larry Swiencki

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 7-1-14

Test Vehicle

Test Vehicle: EDV 8
Engine Family: ETAOC.049MC2
Vehicle Model: CY50A
VIN Number: L9NTEACT2E1003902


IMPORTED
ENGINE DISP
9MC2
PMETALM1
TO US EPA REGULATIONS APPLICA
ERTIFIED TO 1.0G/KM HC.12G/KM CO
N CONTROL SYSTEM: TWC-PAIR
ATIONS: (READ OWNER'S MANUAL
IDLE MIXTURE: NON ADJUSTABLE
SPARK PLUG GAP: 0.7mm
VALVE
D TO OPERATE ON UNLEADED GASOL
AO GROUP CO., LTD.
MFD : TAOTAO GROUP
12/2013
WITH TIRES
3.50-10

Test Procedures and Equipment

The CY50A on road scooter was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
    a. Horiba Model FIA 220
    b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
    a. Methane analyzed by a Bendix GC
    b. Horiba Model FIA 220 Analyzer
    c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
    a. Horiba Model AlA 210 (High Range)
    b. Ranges: 0.5%, 2%
    c. Horiba Model AlA 220 (Low Range)
    d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
    a. Horiba Model AlA 220
    b. Ranges: 2, 4%
4. NOx (CLD)
    a. Horiba Model CLA 220
    b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its "as-received" condition only on the basis that the vehicle's air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.

Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005412	6/27/2014	0.415	0.261	0.676	4.019
Multiplicative Deterioration Factors (provided by TaoTao)				1.000/1.000	1.000
Full Useful Life Emissions				0.676	4.019

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: CY50A

Vehcile Color: red

Last Six of Vin# 003902

Received at CEE Time: 11:50

Received by: CP Siwiecki

Receipant Signature: CP Siwiecki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____

Motorcycle/ATV check-in procedure

PJ# 1300006-10

	As Received	Adjusted
Check vehicle VIN#. L9NTEACT2E1003902		
Check Engine Family# ETADC.049 MM2		
Check oil level	Full	
Check Spark plug gap	.6mm	
Check Valve clearance-intake	.005	
exhaust	.005	
Check Tire pressure	32psi	
Check battery voltage	12.V	
Start unit and let idle check RPM		

Send to Lab

Tech. [signature]

Date 5-20-14

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-10

Make: TAO TAO Model CY50A

Vin#. L9NTEACT2E1003902 Year: 2014

Odometer: 1,9 Color: Red

Displace: 49 cc Fuel System: 1 X 1V

Trans: CVT PCV: X Yes _____ No

Fuel Cap. 1.1 2 gal X 50% .669al

Eng. Fam. ETA0C.049MC2 Evap Fam. _____

Curb Wt. 85KG + 80KG = 165KG

Inertia Wt. KG 160

Coefficients: A 5,19 B 0.0000 C 0.0241

Special Instructions: _____

California Environmental Engineering - 2530 South Birch Street – Santa Ana, CA 92707 Phone: (714) 545-9822 Fax: (714) 545-7667

TaoTao Project Work Sheet

Project # 13000006-10 EDV # 8

Vin# LGNTEACT2E1003902 Req. Miles 2500KM

Work Required	Date Completed	Tech.
Check-in	5-20-14	
Pictures	5-20-14	
Durability 2500KM	5-25-14	
Precondition	6-26-14	
Test CVS75FTP	6-27-14	ALEX HERRERA
Data QA/QC	6-27-14	
Release		

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300006-10 **CLIENT:** TAO TAO

Make: TAO TAO **MODEL:** CY50.9 **YEAR:** 2014

VIN# LJNTEACTJE1001902 **ENG. FAM:** ETA0L.049MC2

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS	
6-14-14	6:00 PM	12:00 PM	0	133.5KM	72.1 M	BRAYAN U		
6/17/14	8:11 AM	11:45 AM	1335	235.KM	126.9M	MARIO H.		
6/17/14	1:55 pm	7:00PM	235.KM	273.1KM	147.	MARIO H.		
6-17-14	6:30 PM	12:00PM	273.1KM	399.3KM	213.6 ML	BRAYAN		
6/18/14	8:15 AM	11:50 AM	399.3 KM	530.7KM	329.7 Miles	Mario H		
6-18-14	7:30 PM	12:00 PM	530.7KM	651.3 KM	394.6 ML	BRAYAN.U		
6/19/14	8:20 AM	11:40 AM	651.3KM	771.2KM	459.6 miles	Mario H.		
6/19/14	1:10 PM	4:15 PM	771.2KM	892.3KM	514.1 miles	Mario H.		
6-19-14	9:30 PM	12:00 PM	892.3KM	1033.6KM	601.3 ML	BRAYAN.U		
6/20/14	8:00 AM	11:50 AM	1033.6KM	1187.3KM	684 m. T	Mario H		
6/20/14	1:15 PM	4:15 PM	1187.3KM	1310.3KM	814 miles	Mario		
6-20-14	4:30 PM	11:00PM	1310.3KM	1447.8KM	887 KM	BRAYAN U		
6/21/14	8 AM	11:00PM	1447.8KM	1615.0KM	998.6	MARIO		
6/21/14	2:20	4:10PM	1615. KM	1692	1024. miles	Mario		
6-21-14	4:30 PM	12:00PM	1692 KM	1907.3KM	1136.9 MI	BRAYAN U		
6-22-14	9:15 PM	12:00PM	1907.3KM	2095.7KM	1236.2 ML	BRAYAN.U		
6/25/14	7:15 AM	12:00 PM	2095.7KM	2284.9KM	1340.3 M.I	Mario H.		
6/25/14	1:10 PM	3:00 PM	2284.9 KM	2501.1KM	1554.1	Mario H.		

COMMENTS: _____

CEE Quality Audit
Accept ✓ Reject
Date 5-20-14 By:

CX106

EPA-001405

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005412	DATE	06-27-2014	RANGE	AUTO
VEHICLE REF	1300006-10	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTEACT2E1003902	ENGINE FAM.	ETA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	CY50A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	2511.4Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS					
REMARKS					
START TIME	10:22:00	END TIME	11:03:10	FINAL ODO.	2525.9KM

#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtrl
1	Ready	0.000	0.000	0.3	0.0 for 0.0	25.7 for -1.4	1
2	Delay 10	0.000	0.000	10.0	0.0 for 0.0	28.6 for -4.7	1
3	Ready	0.000	0.000	0.4	0.0 for 0.0	46.5 for -2.6	281
4	Crank	0.000	0.000	1.3	0.0 for 0.0	58.1 for -6.5	795
5	Phase 1	2.542	4.086	505.0	0.0 for 0.0	65.2 for -1.7	787
6	Phase 2	3.816	6.133	864.0	0.0 for 0.0	83.7 for -31.7	1831
7	Eng off	0.000	0.000	5.3	0.0 for 0.0	200.5 for -91.1	1835
8	Phase 2	0.000	0.000	5.0	0.0 for 0.0	292.6 for -3.2	1827
9	Soak+bl	0.000	0.001	15.0	0.0 for 0.0	358.3 for -27.0	775
10	Soak	0.015	0.024	525.0	0.0 for 0.0	412.1 for -5.8	2
11	Ready	0.000	0.001	16.2	0.0 for 0.0	455.0 for -37.3	3
12	Crank 3	0.000	0.000	1.9	0.0 for 0.0	741.1 for -2.8	835
13	Phase 3	2.643	4.248	505.0	0.0 for 0.0	745.6 for -1.6	835
14	Delay 15	0.000	0.001	15.0	0.0 for 0.0	779.1 for -6.5	3
15	Bags	0.000	0.000	1.0	0.0 for 0.0	0.0 for 0.0	7

TEST COMPLETED 2458.5 SECONDS DVT= 225.4

PHASE 1	THC	CO	NOx	CO2	NMHC				
SAMPLE	48.67	116.4	8.5	0.143	3.0	Tdry= 73.8	Tdp = 55.9		
AMBIENT	3.80	0.5	0.3	0.039	1.7	BARO.= 753.50	SEC = 506.7		
GRAMS	2.065	10.757	1.206	152.47	2.004	NoxKf= 0.964	VOLc= 2815.0		
GMS/MI	0.812	4.232	0.474	59.98	.788	M.P.G. 128.78	DF = 84.009		
G/Mwgt	0.140	0.728	0.082	10.31	.135	MPGnhv 133.10	MI = 2.542		
						R-H = 53.60	KM = 4.086		

PHASE 2	THC	CO	NOx	CO2	NMHC				
SAMPLE	33.06	175.8	6.0	0.128	2.7	Tdry= 74.7	Tdp = 56.6		
AMBIENT	3.37	0.1	0.3	0.039	1.7	BARO.= 753.50	SEC = 874.3		
GRAMS	2.355	28.107	1.457	224.99	2.273	NoxKf= 0.972	VOLc= 4852.0		
GMS/MI	0.617	7.366	0.382	58.96	.595	M.P.G. 122.94	DF = 90.002		
G/Mwgt	0.309	3.683	0.191	29.48	.297	MPGnhv 125.73	MI = 3.816		
						R-H = 53.30	KM = 6.133		

PHASE 3	THC	CO	NOx	CO2	NMHC				
SAMPLE	42.78	165.1	8.7	0.141	2.8	Tdry= 74.5	Tdp = 57.0		
AMBIENT	3.38	0.1	0.3	0.040	1.7	BARO.= 753.50	SEC = 506.9		
GRAMS	1.812	15.305	1.250	148.04	1.760	NoxKf= 0.976	VOLc= 2813.4		
GMS/MI	0.686	5.791	0.473	56.01	.666	M.P.G. 132.46	DF = 82.824		
G/Mwgt	0.160	1.351	0.110	13.06	.155	MPGnhv 136.21	MI = 2.643		
						R-H = 54.50	KM = 4.248		

****

WEIGHTED	THC	CO	NOx	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.667	6.460	0.419	58.45	.645	M.P.G. 126.04	NHVmpg 129.282		
GRAMS/KM	0.415	4.019	0.261	36.36	.401	L/100k 1.87	NHVkpl 54.968		

****

CEE Quality Audit
Accept ✓ Reject
Date 6-27-14 By:

California Environmental Engineering
2530 S. Birch Street, Santa Ana California
****

TEST NUMBER	V6005412	DATE	06-27-2014	RANGE	AUTO
VEHICLE REF	1300006-10	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTEACT2E1003902	ENGINE FAM.	ETA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	CY50A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	2511.4Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS					
REMARKS					

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	49.44	114.0	8.5	0.147	2.90	10:31:09
ZERO	set	0.08	-0.3	0.2	0.002	0.05	10:32:20
OFFSET 10% Lim		+0.1	-0.1	+0.2	+0.1	+0.1	
SPAN	set	98.91	236.5	93.3	1.936	48.68	10:33:21
OFFSET 10% Lim		+0.5	+2.2	+0.2	+0.0	+1.0	
ZERO	set	-0.37	-0.2	0.2	0.000	0.00	10:34:22
AMBIENT1	read	3.80	0.5	0.3	0.039	1.76	10:35:22
SAMPLE1	read	48.67	116.4	8.5	0.143	3.05	10:36:22
ZERO	chek	-0.20	-0.3	0.3	-0.002	0.00	10:37:22
SPAN	chek	98.39	232.0	93.2	1.930	48.56	10:38:22
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 1

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	33.08	156.9	6.1	0.131	2.50	10:45:41
ZERO	set	0.06	-0.1	0.4	0.004	0.05	10:46:41
OFFSET 10% Lim		+0.1	-0.0	+0.4	+0.2	+0.1	
SPAN	set	98.79	238.2	93.6	1.936	48.48	10:47:42
OFFSET 10% Lim		+0.4	+2.7	+0.5	+0.0	+0.6	
ZERO	set	-0.37	-0.9	0.1	-0.002	0.01	10:48:43
AMBIENT2	read	3.37	0.1	0.3	0.039	1.76	10:49:43
SAMPLE2	read	33.06	175.8	6.0	0.128	2.78	10:50:43
ZERO	chek	-0.18	-0.7	0.1	-0.003	0.01	10:51:43
SPAN	chek	98.47	230.0	93.1	1.932	48.70	10:52:43
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 2

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	42.61	233.2	8.8	0.140	2.85	11:03:39
ZERO	set	0.15	0.0	0.5	0.002	0.05	11:04:39
OFFSET 10% Lim		+0.2	+0.0	+0.5	+0.1	+0.1	
SPAN	set	98.90	238.1	93.6	1.923	48.47	11:05:40
OFFSET 10% Lim		+0.5	+2.7	+0.5	-0.6	+0.5	
ZERO	set	-0.43	-0.9	0.1	-0.001	0.03	11:06:41
AMBIENT3	read	3.38	0.1	0.3	0.040	1.75	11:07:41
SAMPLE3	read	42.78	165.1	8.7	0.141	2.85	11:08:41
ZERO	chek	-0.20	-0.7	0.0	0.000	0.01	11:09:41
SPAN	chek	98.37	230.0	93.4	1.938	48.65	11:10:41
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 3

CEE Quality Audit
Accept ✓ Reject
Date 6-27-14 By:

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005412

Make:	TAO TAO	Eng. Fam:	ETAOC.049MC2
Model:	CY50A	Evap Fam:	
Year:	2014	Date:	June 27, 2014
VIN:	L9NTEACT2E1003902	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.90
DF	84.01
V-Mix	2815.00
Miles	2.54
Km	4.09
Nox kf	0.96

Phase II Inputs	
Ambient	0.00
Sample	0.60
DF	90.00
V-Mix	4852.00
Miles	3.82
Km	6.14
Nox kf	0.97

Phase III Inputs	
Ambient	0.00
Sample	0.70
DF	82.82
V-Mix	2813.40
Miles	2.64
Km	4.25
Nox kf	0.98

Phase I Results	
N2Oconc	0.900
N2O mass	0.131
g/mi	0.052
g/km	0.032
g/m wgt	0.022
g/km wgt	0.014

Phase II Results	
N2Oconc	0.600
N2O mass	0.151
g/mi	0.040
g/km	0.025
g/m wgt	0.040
g/km wgt	0.025

Phase III Results	
N2Oconc	0.700
N2Omass	0.102
g/mi	0.039
g/km	0.024
g/m wgt	0.022
g/km wgt	0.014

Total N2O in Grams per mile	**0.083734267**
Total N2O in Grams per kilometer	**0.052030061**

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft^3 (1.83 kg/m^3), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.
$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1{,}000{,}000)$
(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment
PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit
Accept ✓ Reject
Date 6-27-14 By:

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005407	DATE	06-26-2014	RANGE	AUTO
VEHICLE REF	1300006-10	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTEACT2E1003902	ENGINE FAM.	ETA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___.MCT	FUEL Fract.	.8646
MODEL	CY50A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	2501.1Km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS					
REMARKS					
REMARKS					
START TIME	15:05:19	END TIME	15:28:11	FINAL ODO.	2511.4KM

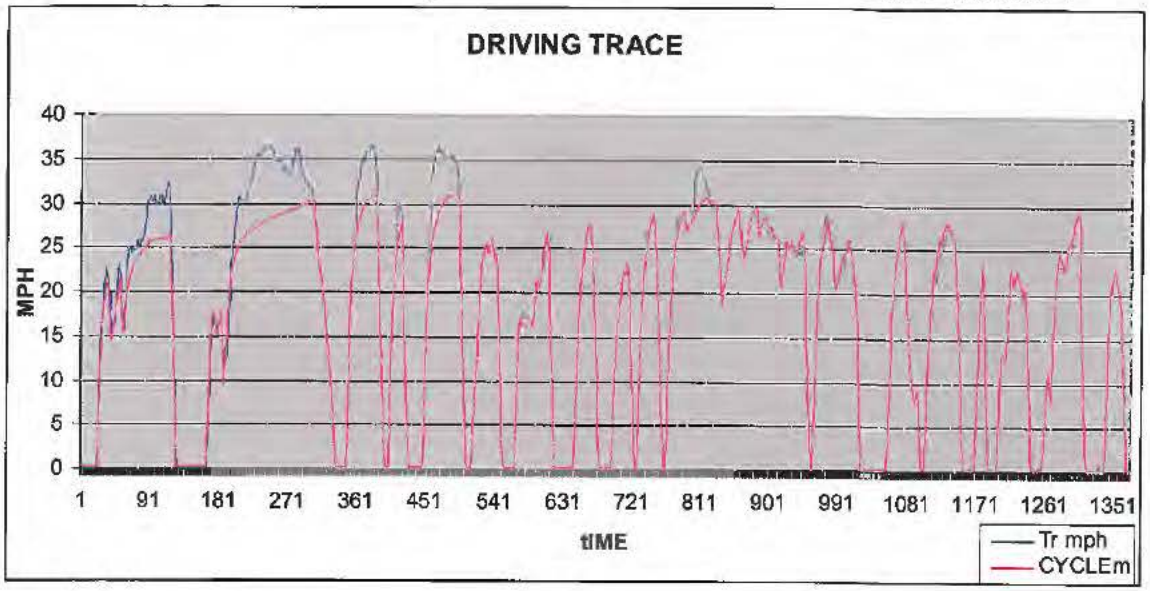
#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtrl
1	CRANK	0.000	0.000	0.1	0.0 for 0.0	87.6 for -8.6	531
2	PHASE 1	2.552	4.102	505.0	0.0 for 0.0	100.2 for -4.6	531
3	PHASE 2	3.843	6.177	867.0	0.0 for 0.0	110.1 for -5.0	531
4	END	0.000	0.000	0.0	0.0 for 0.0	203.1 for -9.5	513
5	END	0.000	0.000	0.0	0.0 for 0.0	217.6 for -50.7	0
6	Phase 2	0.000	0.000	0.0	0.0 for 0.0	274.4 for -11.3	0
7	Eng Off	0.000	0.000	0.0	0.0 for 0.0	363.9 for -5.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for 0.0	370.4 for -12.2	0
9	Soak+bl	0.000	0.000	0.0	0.0 for 0.0	457.9 for -22.9	0
10	Soak	0.000	0.000	0.0	0.0 for 0.0	481.3 for -2.1	0
11	Ready	0.000	0.000	0.0	0.0 for 0.0	808.2 for -2.6	0
12	Crank 3	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
15	Bags	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 139.2
PHASE 1 6.395 10.279 1372.1 VOLUME= 7639.9

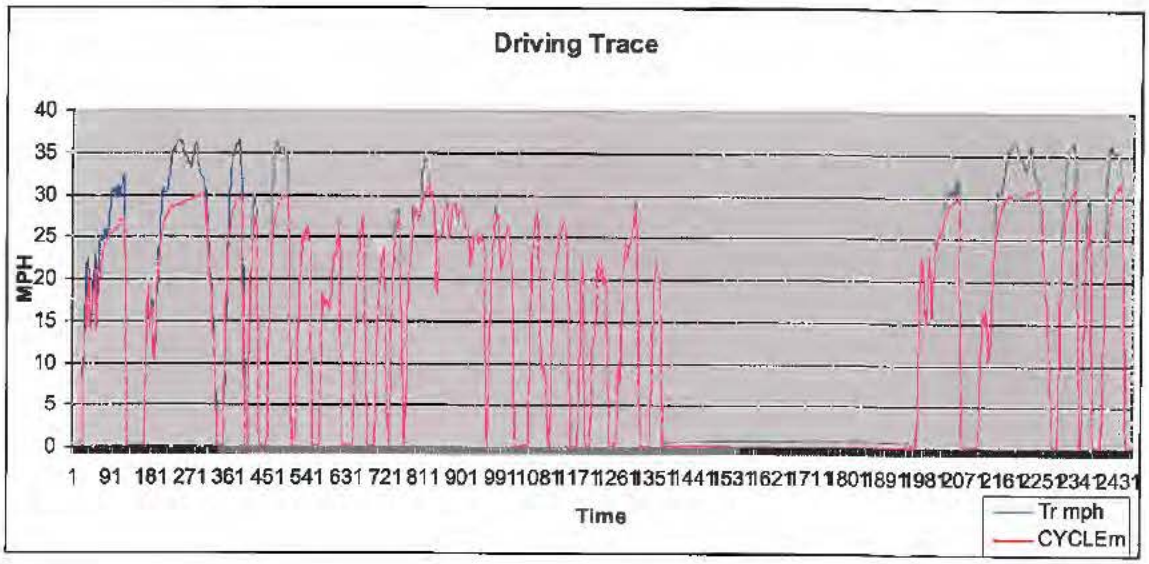
REMARKS
REMARKS
REMARKS

CEE Quality Audit
Accept ✓ Reject
Date 6-27-14 By:

Test: V6005407 6/26/2014 Prep. EDV 8 CY50A Vin. L9NTEACT2E1003902



Test:V6005412 6/27/2014 FTP EDV 8 CY50A Vin. L9NTEACT2E1003902



CEE Quality Audit
Accept ✓ Reject
Date 6-27-14 By: L. Swiech

Deterioration Factors page extracted from the certification application for

Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 6/11/2014

CEE Project Number:
1300006-11

Prepared for:
TAO TAO, USA

Report Prepared by:

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 6-16-14

Test Vehicle

Test Vehicle: EDV 9
Engine Family: DTAOXO.12A1T
Vehicle Model: ATA125-D
VIN Number: L5NAAHTJ3D1019751


L5NAAHTJ3D1019731


ENGINE FAMILY:
ENGINE DISPLACEMENT:
EMISSION CONTROL SYSTEM:
IDLE SPEED:
VALVE CLEARANCE:
SPARK PLUG:
LUBRICANT:
GASOLINE FUEL:
MANUFACTURED:
MADE IN CHINA

Test Procedures and Equipment

The ATA125-D off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
    a. Horiba Model FIA 220
    b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
    a. Methane analyzed by a Bendix GC
    b. Horiba Model FIA 220 Analyzer
    c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
    a. Horiba Model AlA 210 (High Range)
    b. Ranges: 0.5%, 2%
    c. Horiba Model AlA 220 (Low Range)
    d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
    a. Horiba Model AlA 220
    b. Ranges: 2, 4%
4. NOx (CLD)
    a. Horiba Model CLA 220
    b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its "as-received" condition only on the basis that the vehicle's air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.

Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005350	6/11/2014	0.187	0.227	0.414	3.542
Multiplicative Deterioration Factors (provided by TaoTao)				1.019	1.000
Full Useful Life Emissions				0.422	3.542

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: ATA 170 B

Vehcile Color: Black/Red

Last Six of Vin# 019751

Received at CEE Time: 11:35

Received by: L P Swiencki

Receipant Signature: L P Swiencki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle/ATV check-in procedure

PJ# 1300006-11

	As Received	Adjusted
Check vehicle VIN#. 4S4AMHTJ3D1619251		
Check Engine Family# DTA0X0.12AIT		
Check oil level	Full	
Check Spark plug gap	0.6	
Check Valve clearance-intake	.005	
exhaust	.005	
Check Tire pressure	24 psi	
Check battery voltage	12V	
Start unit and let idle check RPM	NA	

Send to Lab

Tech. [signature]

Date 5-19-14

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006-11

Make: TAOTAO Model ATA110E

Vin#. LSNAAHTN3D1019751 Year: 2013

Odometer: NA Color: BLK/Red

Displace: 110 cc Fuel System: 1X1V

Trans: Auto PCV: X Yes ____ No

Fuel Cap. 2.32 = 0.60 gal X 50% .3

Eng. Fam. DTAOX0.12A1T Evap Fam. ____

Curb Wt. 185 lbs = 83.9 + 80 = 163.9 KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.0000 C 0.0241

Special Instructions: ____

California Environmental Engineering - 2530 South Birch Street – Santa Ana, CA 92707 Phone: (714) 545-9822 Fax: (714) 545-7667

TaoTao Project Work Sheet

Project # 1300006-11 EDV # 9

Vin# LSNAAHTJ3D1019751 Req. Miles 250KM

Work Required	Date Completed	Tech.
Check-in	5-19-14	
Pictures	5-19-14	
Durability 250KM	5-28-14	
Precondition	6-10-14	AH
Test CVS75FTP	6-11-14	AH
Data QA/QC	6-15-14	
Release		

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 13000046-11
Make: TAO TAO
VIN# LSNAAHTJ3D1019751

CLIENT: TAO TAO
MODEL: ATA 110 II
ENG. FAM: DTA0X0.12A1T

YEAR: 2013

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS	
5-28-14	9:00A	5:00	0	180		JA		
5-29-14	8:00	11:00	180	251		JA		

CX107

EPA0001424

COMMENTS:

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005350	DATE	06-11-2014	RANGE	AUTO
VEHICLE REF	1300006-11	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ3D1019751	ENGINE FAM.	DTA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	281.5Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	W O T				
REMARKS	CONFIRMATORY				
REMARKS					
START TIME	10:40:04	END TIME	11:21:16	FINAL ODO.	296.4KM

#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtrl
1	Ready	0.000	0.000	0.3	0.0 for 0.0	110.8 for -3.8	1
2	Delay 10	0.000	0.000	10.0	0.0 for 0.0	217.7 for -74.1	1
3	Ready	0.000	0.000	0.5	0.0 for 0.0	292.6 for -7.2	281
4	Crank	0.000	0.000	2.8	0.0 for 0.0	360.9 for -24.7	795
5	Phase 1	2.675	4.300	505.0	0.0 for 0.0	457.8 for -34.4	787
6	Phase 2	3.878	6.234	864.0	0.0 for 0.0	804.1 for -13.0	1831
7	Eng Off	0.000	0.000	3.3	0.0 for 0.0	1486.3 for -1.5	1835
8	Phase 2	0.000	0.000	5.0	0.0 for 0.0	1594.9 for -70.4	1827
9	Soak+bl	0.000	0.001	15.0	0.0 for 0.0	1737.2 for -21.2	775
10	Soak	0.015	0.023	525.0	0.0 for 0.0	1832.3 for -33.9	2
11	Ready	0.001	0.001	19.6	0.0 for 0.0	0.0 for 0.0	3
12	Crank 3	0.000	0.000	0.6	0.0 for 0.0	0.0 for 0.0	835
13	Phase 3	2.719	4.371	505.0	0.0 for 0.0	0.0 for 0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for 0.0	0.0 for 0.0	3
15	Bags	0.000	0.000	1.0	0.0 for 0.0	0.0 for 0.0	7

TEST COMPLETED 2458.6 SECONDS DVT= 286.9

PHASE 1	THC	CO	NOx	CO2	NMHC				
SAMPLE	22.58	109.1	7.7	0.181	3.0	Tdry=	73.0	Tdp =	50.9
AMBIENT	4.05	0.7	0.3	0.045	1.8	BARO.=	753.50	SEC =	508.3
GRAMS	0.859	10.110	1.040	200.42	.801	NoxKf=	0.917	VOLc=	2828.6
GMS/MI	0.321	3.780	0.389	74.92	.299	M.P.G.	108.85	DF =	69.012
G/Mwgt	0.056	0.663	0.068	13.15	.052	MPGnhv	109.68	MI =	2.675
						R-H =	45.80	KM =	4.300

PHASE 2	THC	CO	NOx	CO2	NMHC				
SAMPLE	17.43	140.1	6.0	0.149	3.0	Tdry=	74.1	Tdp =	51.2
AMBIENT	3.55	1.0	0.4	0.044	1.8	BARO.=	753.50	SEC =	872.3
GRAMS	1.103	22.251	1.353	265.48	1.014	NoxKf=	0.919	VOLc=	4851.3
GMS/MI	0.284	5.736	0.349	68.44	.261	M.P.G.	113.74	DF =	81.334
G/Mwgt	0.142	2.868	0.174	34.22	.130	MPGnhv	114.50	MI =	3.879
						R-H =	44.70	KM =	6.235

PHASE 3	THC	CO	NOx	CO2	NMHC				
SAMPLE	22.97	206.8	7.6	0.168	3.6	Tdry=	73.2	Tdp =	51.2
AMBIENT	3.65	1.0	0.1	0.043	1.8	BARO.=	753.50	SEC =	505.6
GRAMS	0.889	19.075	1.050	183.09	.806	NoxKf=	0.919	VOLc=	2811.1
GMS/MI	0.327	7.016	0.386	67.34	.296	M.P.G.	112.25	DF =	70.166
G/Mwgt	0.077	1.648	0.091	15.82	.069	MPGnhv	113.18	MI =	2.719
						R-H =	46.00	KM =	4.370

****

WEIGHTED	THC	CO	NOx	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.301	5.693	0.365	69.32	.276	M.P.G.	112.50	NHVmpg	113.315
GRAMS/KM	0.187	3.542	0.227	43.13	.171	L/100k	2.09	NHVkpl	48.179

****

CEE Quality Audit
Accept ✓ Reject
Date 6-11-14 By:

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005350	DATE	06-11-2014	RANGE	AUTO
VEHICLE REF	1300006-11	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ3D1019751	ENGINE FAM.	DTA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	281.5Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	W.O.T.				
REMARKS	CONFIRMATORY				
REMARKS					

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	22.58	110.2	9.0	0.179	3.08	10:49:13
ZERO	set	-0.04	0.1	0.3	-0.002	0.03	10:50:13
OFFSET 10% Lim		-0.0	+0.0	+0.3	-0.1	+0.1	
SPAN	set	98.31	232.3	93.5	1.930	49.06	10:51:14
OFFSET 10% Lim		-0.1	+0.8	+0.4	-0.2	+1.7	
ZERO	set	0.14	0.0	0.2	0.000	0.00	10:52:15
AMBIENT1	read	4.05	0.7	0.3	0.045	1.88	10:53:15
SAMPLE1	read	22.58	109.1	7.7	0.181	3.10	10:54:15
ZERO	chek	0.23	-0.1	0.1	-0.001	0.00	10:55:15
SPAN	chek	98.38	229.7	92.8	1.939	47.76	10:56:15
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 1

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	18.32	142.3	6.1	0.147	2.98	11:03:45
ZERO	set	0.40	0.0	0.1	-0.002	0.02	11:04:45
OFFSET 10% Lim		+0.4	+0.0	+0.1	-0.1	+0.0	
SPAN	set	99.28	232.7	93.9	1.940	47.40	11:05:46
OFFSET 10% Lim		+0.9	+0.9	+0.8	+0.2	-1.6	
ZERO	set	-0.32	0.0	0.2	0.000	0.01	11:06:47
AMBIENT2	read	3.55	1.0	0.4	0.044	1.90	11:07:47
SAMPLE2	read	17.43	140.1	6.0	0.149	3.00	11:08:47
ZERO	chek	-0.27	0.1	0.2	0.001	0.01	11:09:47
SPAN	chek	98.05	230.1	92.2	1.937	48.09	11:10:47
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 2

MODE		THCd3A	COLd2A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	24.00	208.8	7.5	0.167	3.57	11:21:45
ZERO	set	0.50	0.2	0.2	0.000	0.02	11:22:45
OFFSET 10% Lim		+0.5	+0.1	+0.2	+0.0	+0.0	
SPAN	set	99.75	232.5	94.0	1.941	48.50	11:23:46
OFFSET 10% Lim		+1.4	+0.8	+0.9	+0.3	+0.6	
ZERO	set	-0.36	-0.1	0.0	0.000	0.00	11:24:47
AMBIENT3	read	3.65	1.0	0.1	0.043	1.90	11:25:47
SAMPLE3	read	22.97	206.8	7.6	0.168	3.68	11:26:47
ZERO	chek	-0.21	0.1	0.0	0.000	0.00	11:27:47
SPAN	chek	97.87	230.0	92.9	1.935	47.37	11:28:47
SPAN VALUES		98.40	230.0	93.1	1.935	48.20	END # 3

CEE Quality Audit
Accept ✓ Reject ___
Date 6-11-14 By: [signature]

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005350

Make:	TAO TAO	Eng. Fam:	DTAOXO.12A1T
Model:	ATA110B	Evap Fam:	
Year:	2013	Date:	June 11, 2014
VIN:	L5NAAHTJ3D1019751	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.70
DF	69.01
V-Mix	2828.60
Miles	2.68
Km	4.30
Nox kf	0.92

Phase II Inputs	
Ambient	0.00
Sample	0.90
DF	81.33
V-Mix	4851.30
Miles	3.88
Km	6.24
Nox kf	0.92

Phase III Inputs	
Ambient	0.00
Sample	0.70
DF	70.17
V-Mix	2811.10
Miles	2.72
Km	4.38
Nox kf	0.92

Phase I Results	
N2Oconc	0.700
N2O mass	0.103
g/mi	0.038
g/km	0.024
g/m wgt	0.016
g/km wgt	0.010

Phase II Results	
N2Oconc	0.900
N2O mass	0.226
g/mi	0.058
g/km	0.036
g/m wgt	0.058
g/km wgt	0.036

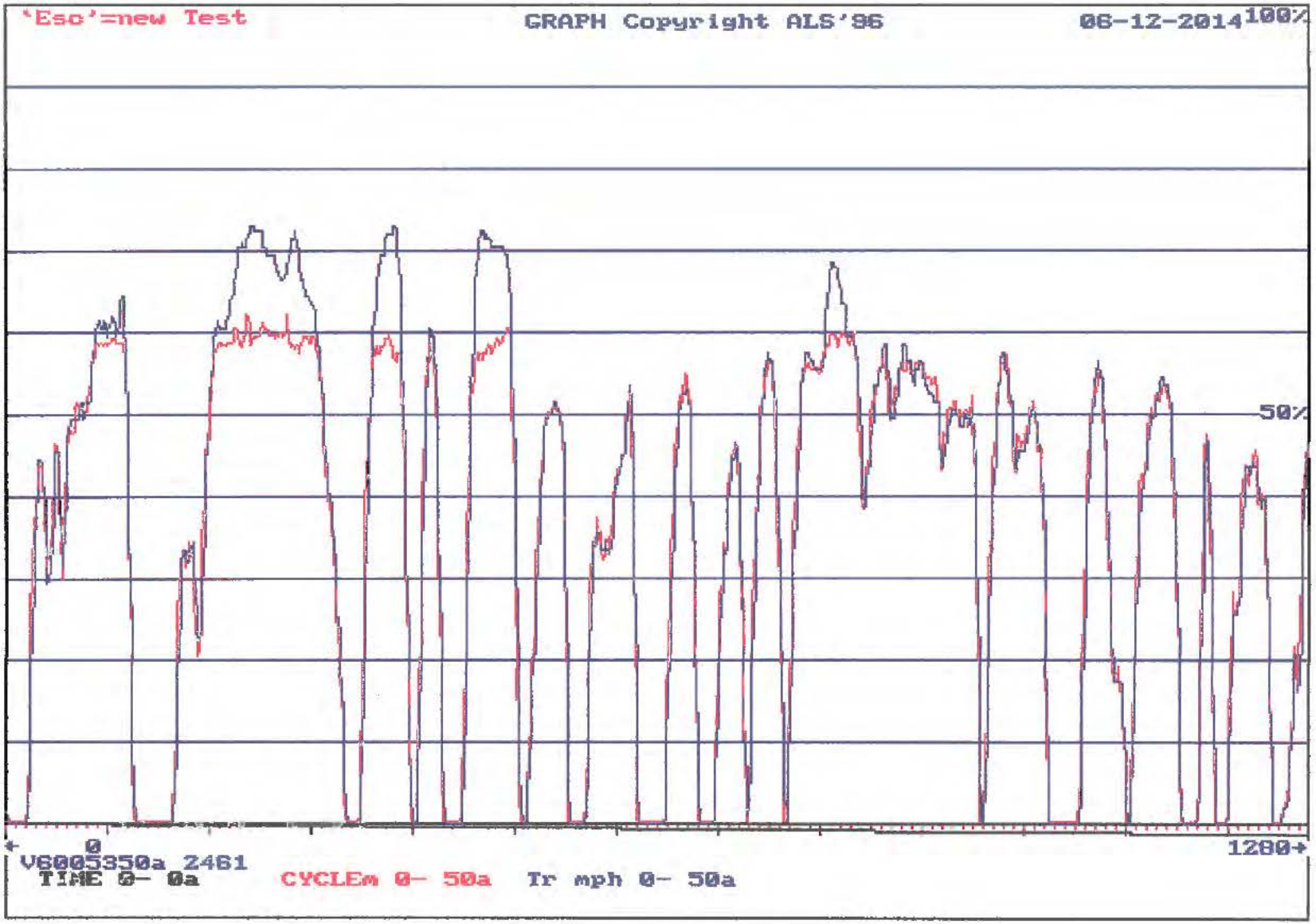
Phase III Results	
N2Oconc	0.700
N2Omass	0.102
g/mi	0.037
g/km	0.023
g/m wgt	0.021
g/km wgt	0.013

Total N2O in Grams per mile	**0.096194628**
Total N2O in Grams per kilometer	**0.059772571**

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft^3 (1.83 kg/m^3), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.
$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1{,}000{,}000)$
(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment
PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit
Accept ✓ Reject
Date 6-15-14 By:



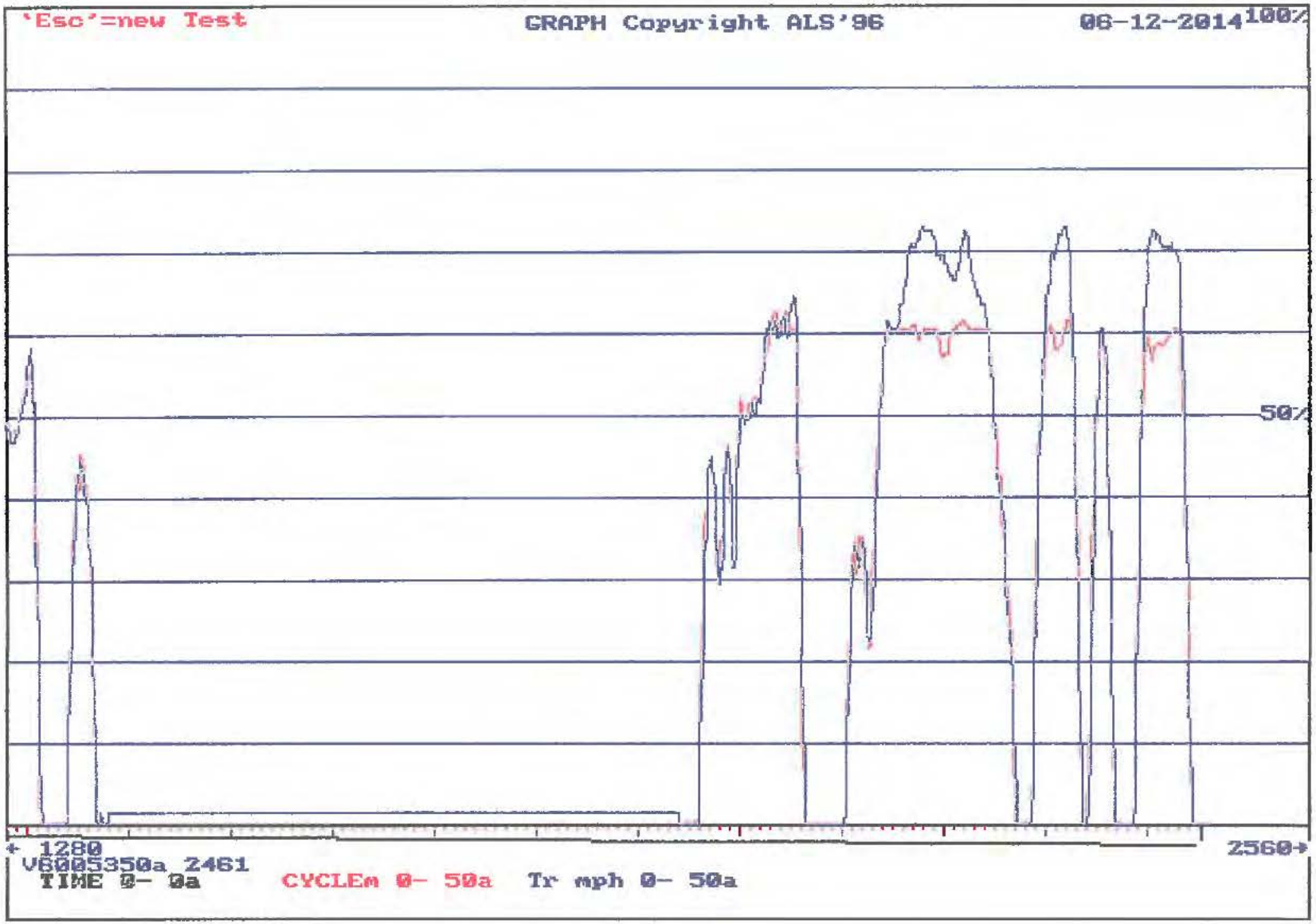
CEE Quality Audit

Accept ✓ Reject ____

Date 6-11-14 By: L Siwek

CX107

EPA-001429



CX107

EPA-001430

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

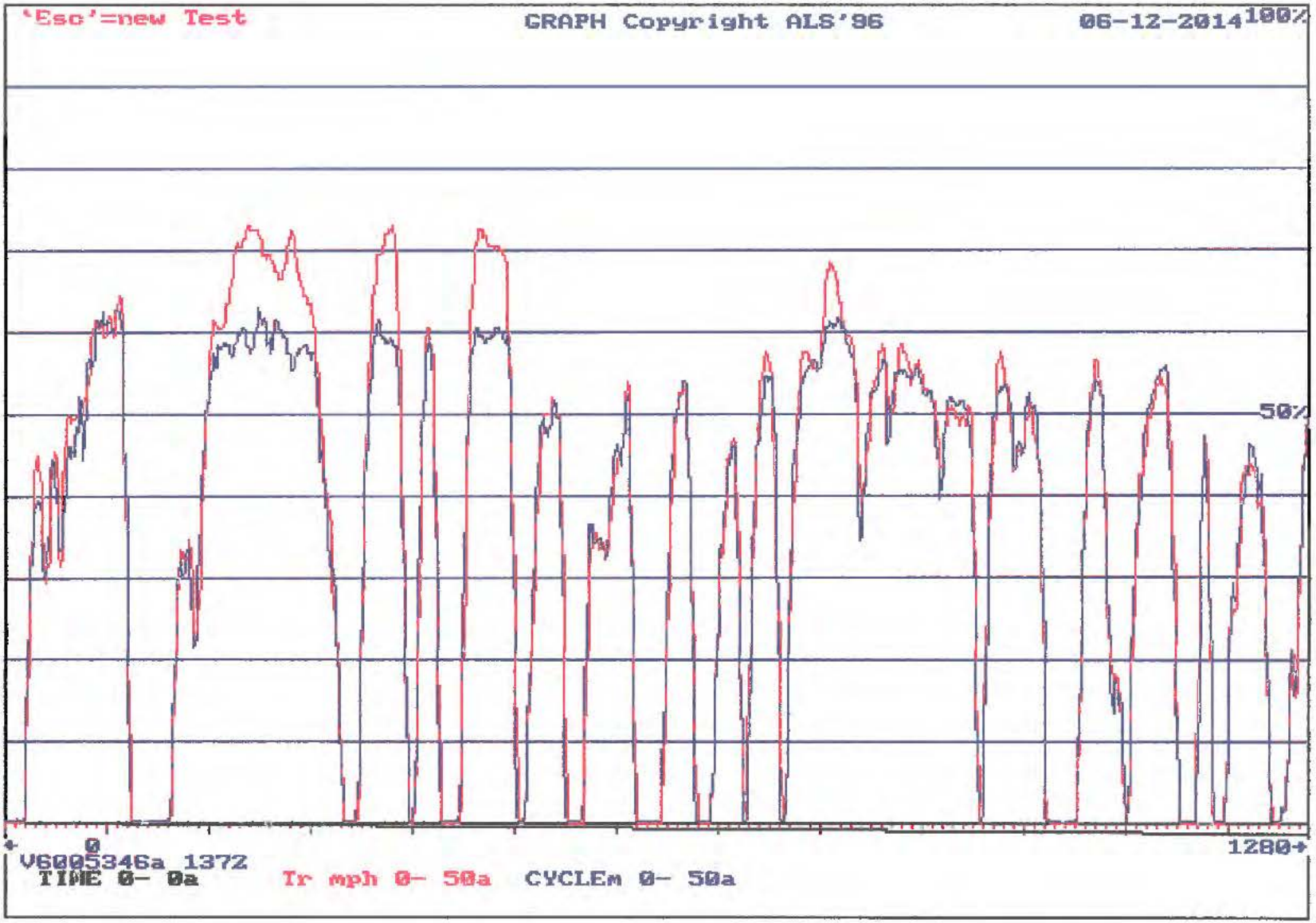
TEST NUMBER	V6005346	DATE	06-10-2014	RANGE	AUTO
VEHICLE REF	1300006-11	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ3D1019751	ENGINE FAM.	DTA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	271.1Km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS	W.O.T.				
REMARKS	CONFIRMATORY				
REMARKS					
START TIME	11:14:40	END TIME	11:37:32	FINAL ODO.	281.5KM

#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtr
1	CRANK	0.000	0.000	0.2	0.0 for 0.0	224.6 for -25.6	531
2	PHASE 1	2.649	4.257	505.0	0.0 for 0.0	256.3 for -6.5	531
3	PHASE 2	3.832	6.160	867.0	0.0 for 0.0	275.9 for -10.8	531
4	END	0.000	0.000	0.0	0.0 for 0.0	370.4 for -13.3	513
5	END	0.000	0.000	0.0	0.0 for 0.0	461.4 for -30.1	0
6	Phase 2	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
7	Eng off	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
9	Soak+bl	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
10	Soak	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
11	Ready	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0
15	Bags	0.000	0.000	0.0	0.0 for 0.0	0.0 for 0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 90.0
PHASE 1 6.481 10.417 1372.2 VOLUME=14548.2

REMARKS
REMARKS
REMARKS

CEE Quality Audit
Accept ✓ Reject
Date 6-11-14 By: [signature]



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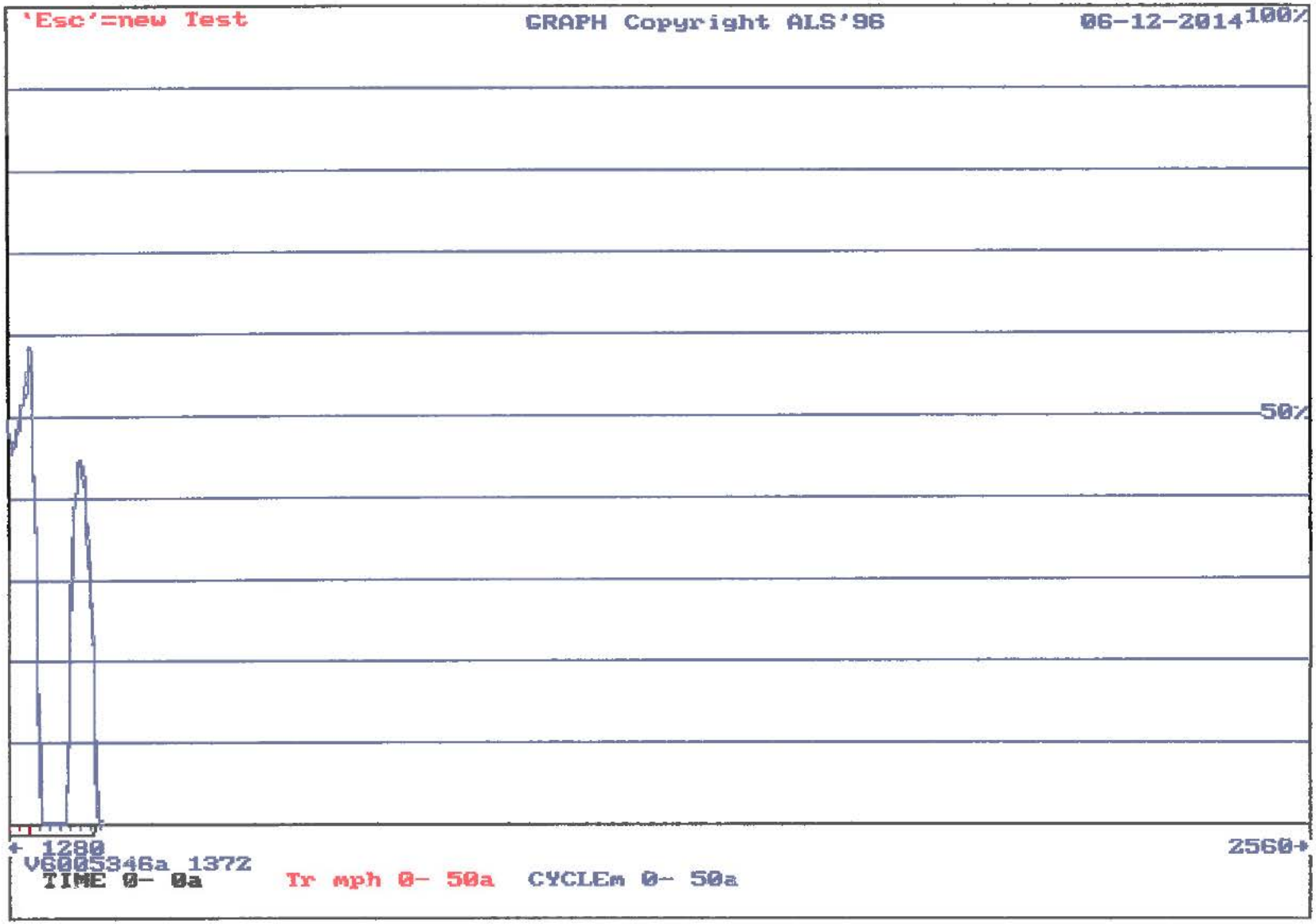
Date 6-11-14 By: L Bianchi

CX107

EPA-001432



CX107

EPA-001433

Deterioration Factors page extracted from the certification application for

Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 7/16/2014

CEE Project Number:
1300006-12

Prepared for:
TAO TAO, USA

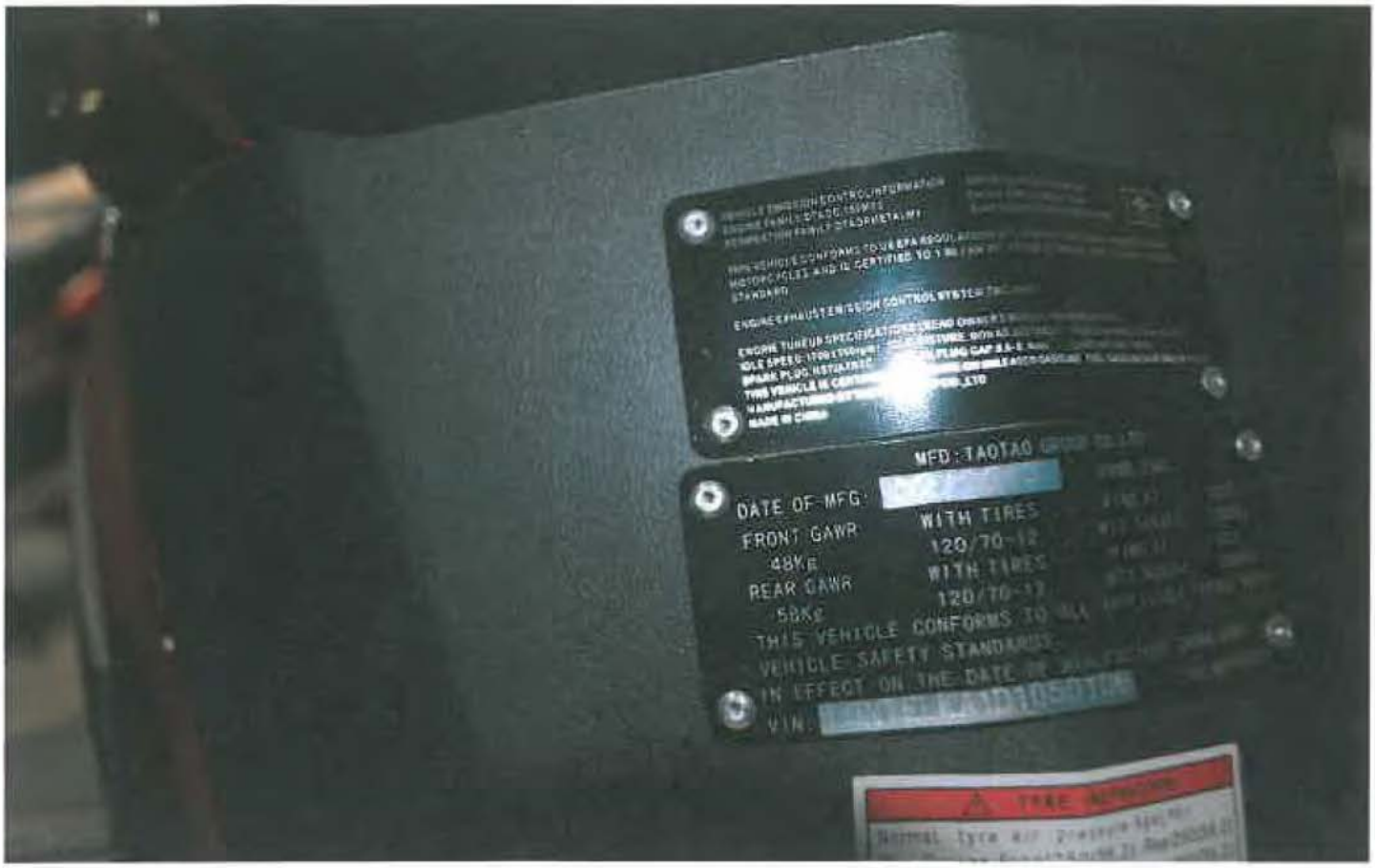
Report Prepared by:

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 7-21-14

Test Vehicle

Test Vehicle: EDV 10
Engine Family: DTAOC.150MC2
Vehicle Model: CY150A
VIN Number: L9NTELKA1D1050106


MFD: TAOTAO
DATE OF MFG:
FRONT GAWR
WITH TIRES
120/70-12
48KG
REAR GAWR
WITH TIRES
120/70-12
50KG
THIS VEHICLE CONFORMS TO ALL
VEHICLE SAFETY STANDARDS
IN EFFECT ON THE DATE OF
VIN:

Test Procedures and Equipment

The CY150A On road Scooter was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
    a. Horiba Model FIA 220
    b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
    a. Methane analyzed by a Bendix GC
    b. Horiba Model FIA 220 Analyzer
    c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
    a. Horiba Model AIA 210 (High Range)
    b. Ranges: 0.5%, 2%
    c. Horiba Model AIA 220 (Low Range)
    d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
    a. Horiba Model AIA 220
    b. Ranges: 2, 4%
4. NOx (CLD)
    a. Horiba Model CLA 220
    b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its "as-received" condition only on the basis that the vehicle's air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.

Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005449	7/16/2014	0.453	0.073	0.526	12.774
Multiplicative Deterioration Factors (provided by TaoTao)				1.000/0.00	1.000
Full Useful Life Emissions				0.526	12.774

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: CY150A

Vehcile Color: Red

Last Six of Vin# 050106

Received at CEE Time: 10:50

Received by: LPSwienicki

Receipant Signature: L.P.Swienicki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle/ATV check-in procedure

PJ# 1300006-12

	As Received	Adjusted
Check vehicle VIN#. 19WTELKA1D1050106		
Check Engine Family# DTAOC.150MC2		
Check oil level	Full	
Check Spark plug gap	1mm	
Check Valve clearance-intake	.005"	
exhaust	.005"	
Check Tire pressure	32psi	
Check battery voltage	12.V	
Start unit and let idle check RPM	NA	
Send to Lab		

Tech. L. Lewinski

Date 5-20-14

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 13000612

Make: TaoTao Model CY150A

Vin#. L9NTELKA1D1050106 Year: 2013

Odometer: _____ Color: Red

Displace: 149 cc Fuel System: FIV

Trans: CVT PCV: X Yes _____ No

Fuel Cap. 2.0 gal X 50% 1.0 gal

Eng. Fam. DTA0C.150M02 Evap Fam. _____

Curb Wt. 145 KG + 80 = 225 KG

Inertia Wt. KG 220

Coefficients: A 10.43 B 0.0000 C 0.0257

Special Instructions: _____

California Environmental Engineering - 2530 South Birch Street – Santa Ana, CA 92707 Phone: (714) 545-9822 Fax: (714) 545-7667

TaoTao Project Work Sheet

Project # 1300006-12 EDV # 10

Vin# LGNTELKA1D1050106 Req. Miles 2500KM

Work Required	Date Completed	Tech.
Check-in	5-20-14	
Pictures	5-20-14	
Durability 2500KM	7-3-14	
Precondition	7-15-14	
Test CVS75FTP	7-16-14	
Data QA/QC	7-17-14	
Release		

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300006-12
CLIENT: TAO TAO
Make: CY150A
MODEL: CY150A
YEAR: 2013
VIN# L9NTELKA1D1050106
ENG. FAM: DTAOC.150MCZ

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS	
20 14	6:00	8:00	0	152		[illegible]		
23-14	5:20	4:00	152	403		[illegible]		
24-14	5:20	4:00	403	719		[illegible]		
25-14	5:20	4:00	719	1021		[illegible]		
26-14	5 20	4:00	1021	1295		[illegible]		
27-14	5 30	8:00	1295	1547		[illegible]		
30-14	5 20	4:00	1547	1814		[illegible]		
1-14	5:20	4:00	1814	2153		[illegible]		
3-14	8:20	5:00	2153	2340		[illegible]		
3-14	8:20	4:00	2340	2501		[illegible]		

COMMENTS:

CX108

EPA-001446

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005449	DATE	07-16-2014	RANGE	AUTO
VEHICLE REF	1300006-12	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKA1D1050106	ENGINE FAM.	DTA0C.150MC2	DENSITY	16.33
OPERATOR	ALEX HERERRA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	CY150A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	220KG	N.H.V.	18489
TANK CAP	50%=1.0	F0_SET_SI	10.43	WT FACTOR	.43
ODOMETER	2512.1Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0257	WT FACTOR	.57
REMARKS	AFTER 2500Km				
REMARKS					
REMARKS					
START TIME	09:14:33	END TIME	09:55:42	FINAL ODO.	2527.8KM

#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtrl
1	Ready	0.000	0.000	0.3	0.0 for 0.0	0.0 for 0.0	1
2	Delay 10	0.000	0.001	10.0	0.0 for 0.0	0.0 for 0.0	1
3	Ready	0.000	0.000	0.3	0.0 for 0.0	0.0 for 0.0	281
4	Crank	0.000	0.000	1.5	0.0 for 0.0	0.0 for 0.0	795
5	Phase 1	2.921	4.695	505.0	0.0 for 0.0	0.0 for 0.0	787
6	Phase 2	3.922	6.304	864.0	0.0 for 0.0	0.0 for 0.0	1831
7	Eng Off	0.000	0.000	2.9	0.0 for 0.0	0.0 for 0.0	1835
8	Phase 2	0.000	0.000	5.0	0.0 for 0.0	0.0 for 0.0	1827
9	Soak+bl	0.000	0.001	15.0	0.0 for 0.0	0.0 for 0.0	775
10	Soak	0.015	0.024	525.0	0.0 for 0.0	0.0 for 0.0	2
11	Ready	0.001	0.001	18.0	0.0 for 0.0	0.0 for 0.0	3
12	Crank 3	0.000	0.000	0.9	0.0 for 0.0	0.0 for 0.0	835
13	Phase 3	2.904	4.667	505.0	0.0 for 0.0	0.0 for 0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for 0.0	0.0 for 0.0	3
15	Bags	0.000	0.000	1.0	0.0 for 0.0	0.0 for 0.0	7

TEST COMPLETED 2456.8 SECONDS DVT= 0.7

PHASE 1	THC	CO	NOx	CO2	NMHC				
SAMPLE	48.23	656.8	4.2	0.162	4.5	Tdry=	73.2	Tdp =	53.8
AMBIENT	3.69	1.7	0.6	0.040	1.8	BARO.=	757.50	SEC =	506.8
GRAMS	2.069	61.349	0.523	180.69	1.939	NoxKf=	0.941	VOLc=	2840.3
GMS/MI	0.708	21.003	0.179	61.86	.663	M.P.G.	91.78	DF =	57.634
G/Mwgt	0.130	3.855	0.033	11.35	.121	MPGnhv	93.49	MI =	2.921
						R-H =	50.70	KM =	4.695

PHASE 2	THC	CO	NOx	CO2	NMHC				
SAMPLE	42.68	483.0	1.8	0.138	4.0	Tdry=	73.9	Tdp =	54.0
AMBIENT	5.05	2.3	0.3	0.041	1.8	BARO.=	757.50	SEC =	871.9
GRAMS	3.005	77.364	0.375	246.97	2.823	NoxKf=	0.943	VOLc=	4881.1
GMS/MI	0.766	19.721	0.096	62.95	.719	M.P.G.	92.48	DF =	70.316
G/Mwgt	0.383	9.860	0.048	31.48	.359	MPGnhv	94.40	MI =	3.923
						R-H =	49.80	KM =	6.305

PHASE 3	THC	CO	NOx	CO2	NMHC				
SAMPLE	45.26	689.2	3.0	0.156	4.6	Tdry=	73.5	Tdp =	54.1
AMBIENT	4.30	1.5	0.6	0.042	1.8	BARO.=	757.50	SEC =	505.9
GRAMS	1.896	64.171	0.349	168.34	1.765	NoxKf=	0.944	VOLc=	2830.1
GMS/MI	0.653	22.097	0.120	57.97	.608	M.P.G.	94.05	DF =	58.402
G/Mwgt	0.158	5.358	0.029	14.06	.147	MPGnhv	95.68	MI =	2.904
						R-H =	50.70	KM =	4.668

****

WEIGHTED	THC	CO	NOx	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.728	20.532	0.117	61.54	.682	M.P.G.	92.72	NHVmpg	94.539
GRAMS/KM	0.453	12.774	0.073	38.29	.424	L/100k	2.54	NHVkpl	40.196

****

CEE Quality Audit
Accept ✓ Reject
Date 7-17-14 By: [signature]

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005449	DATE	07-16-2014	RANGE	AUTO
VEHICLE REF	1300006-12	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKA1D1050106	ENGINE FAM.	DTA0C.150MC2	DENSITY	16.33
OPERATOR	ALEX HERERRA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	CY150A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	220KG	N.H.V.	18489
TANK CAP	50%=1.0	F0_SET_SI	10.43	WT FACTOR	.43
ODOMETER	2512.1Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0257	WT FACTOR	.57
REMARKS	AFTER 2500Km				
REMARKS					
REMARKS					

MODE		THCd3A	COLd4A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	49.24	665.7	6.6	0.166	0.88	09:31:32
ZERO	set	0.26	-1.7	-0.3	0.003	0.02	09:32:32
OFFSET 10% Lim		+0.3	-0.1	-1.0	+0.1	+0.0	
SPAN	set	96.85	3030.7	27.7	1.949	46.68	09:33:33
OFFSET 10% Lim		-0.4	+3.3	+0.7	+0.7	-2.6	
ZERO	set	-0.40	1.3	0.8	-0.001	0.06	09:34:34
AMBIENT1	read	3.69	1.7	0.6	0.040	1.83	09:35:34
SAMPLE1	read	48.23	656.8	4.2	0.162	4.59	09:36:34
ZERO	chek	-0.13	-0.1	-0.1	-0.002	0.00	09:37:34
SPAN	chek	97.39	2928.7	27.6	1.931	48.08	09:38:34
SPAN VALUES		97.30	2927.0	27.5	1.935	48.00	END # 1

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	41.15	468.6	1.9	0.142	3.95	09:39:23
ZERO	set	0.50	0.3	-0.2	0.002	0.03	09:40:23
OFFSET 10% Lim		+0.5	+0.0	-0.7	+0.1	+0.1	
SPAN	set	97.67	948.8	27.5	1.936	47.14	09:41:24
OFFSET 10% Lim		+0.4	+0.1	+0.0	+0.0	-1.7	
ZERO	set	0.02	-0.3	-0.1	0.000	-0.01	09:42:25
AMBIENT2	read	5.05	2.3	0.3	0.041	1.82	09:43:25
SAMPLE2	read	42.68	483.0	1.8	0.138	4.07	09:44:25
ZERO	chek	0.15	-0.5	-0.2	-0.001	-0.01	09:45:25
SPAN	chek	97.96	947.2	27.4	1.930	48.37	09:46:25
SPAN VALUES		97.30	948.0	27.5	1.935	48.00	END # 2

MODE		THCd3A	COLd3A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	46.63	593.1	2.6	0.154	3.76	09:56:12
ZERO	set	0.84	1.2	-0.4	-0.001	0.02	09:57:12
OFFSET 10% Lim		+0.8	+0.1	-1.3	-0.0	+0.0	
SPAN	set	98.52	946.8	27.3	1.922	45.94	09:58:13
OFFSET 10% Lim		+1.2	-0.1	-0.7	-0.6	-4.1	
ZERO	set	-0.47	-1.1	0.0	0.000	0.00	09:59:14
AMBIENT3	read	4.30	1.5	0.6	0.042	1.84	10:00:14
SAMPLE3	read	45.26	689.2	3.0	0.156	4.63	10:01:14
ZERO	chek	-0.25	-1.1	0.0	0.001	0.01	10:02:14
SPAN	chek	97.15	948.5	27.6	1.938	48.85	10:03:14
SPAN VALUES		97.30	948.0	27.5	1.935	48.00	END # 3

CEE Quality Audit
Accept ✓ Reject
Date 7-17-14 By: L. Sarkenchi

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005449

Make:	TAO TAO	Eng. Fam:	DTAOC.150MC2
Model:	CY150A	Evap Fam:	
Year:	2013	Date:	July 16, 2014
VIN:	L9NTELKA1D1050106	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.10
Sample	1.40
DF	57.63
V-Mix	2840.30
Miles	2.92
Km	4.70
Nox kf	0.94

Phase II Inputs	
Ambient	0.00
Sample	1.10
DF	70.32
V-Mix	4881.10
Miles	3.92
Km	6.31
Nox kf	0.94

Phase III Inputs	
Ambient	0.10
Sample	1.00
DF	58.40
V-Mix	2830.10
Miles	2.90
Km	4.67
Nox kf	0.94

Phase I Results	
N2Oconc	1.302
N2O mass	0.192
g/mi	0.066
g/km	0.041
g/m wgt	0.028
g/km wgt	0.018

Phase II Results	
N2Oconc	1.100
N2O mass	0.278
g/mi	0.071
g/km	0.044
g/m wgt	0.071
g/km wgt	0.044

Phase III Results	
N2Oconc	0.902
N2Omass	0.132
g/mi	0.046
g/km	0.028
g/m wgt	0.026
g/km wgt	0.016

Total N2O in Grams per mile	**0.125078467**
Total N2O in Grams per kilometer	**0.077720156**

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft^3 (1.83 kg/m^3), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.
$V_{mix} \times Density_{N2O} \times (N_2O_{conc} / 1{,}000{,}000)$
(B) $N_2O_{conc} = N_2O_e - N_2O_d (1 - (1/DF))$.

Title 40: Protection of Environment
PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit
Accept ✓ Reject
Date 7-17-14 By: [signature]

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005448	DATE	07-15-2014	RANGE	AUTO
VEHICLE REF	1300006-12	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTELKA1D1050106	ENGINE FAM.	DTA0C.150MC2	DENSITY	16.33
OPERATOR	ALEX HERERRA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___.MCT	FUEL Fract.	.8646
MODEL	CY150A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2013	INERTIA WGT	220KG	N.H.V.	18489
TANK CAP	50%=1.0	F0_SET_SI	10.43	WT FACTOR	0
ODOMETER	2501.2Km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0257	WT FACTOR	0
REMARKS	AFTER 2500Km				
REMARKS					
REMARKS					
START TIME	14:27:05	END TIME	14:49:58	FINAL ODO.	2512.1KM

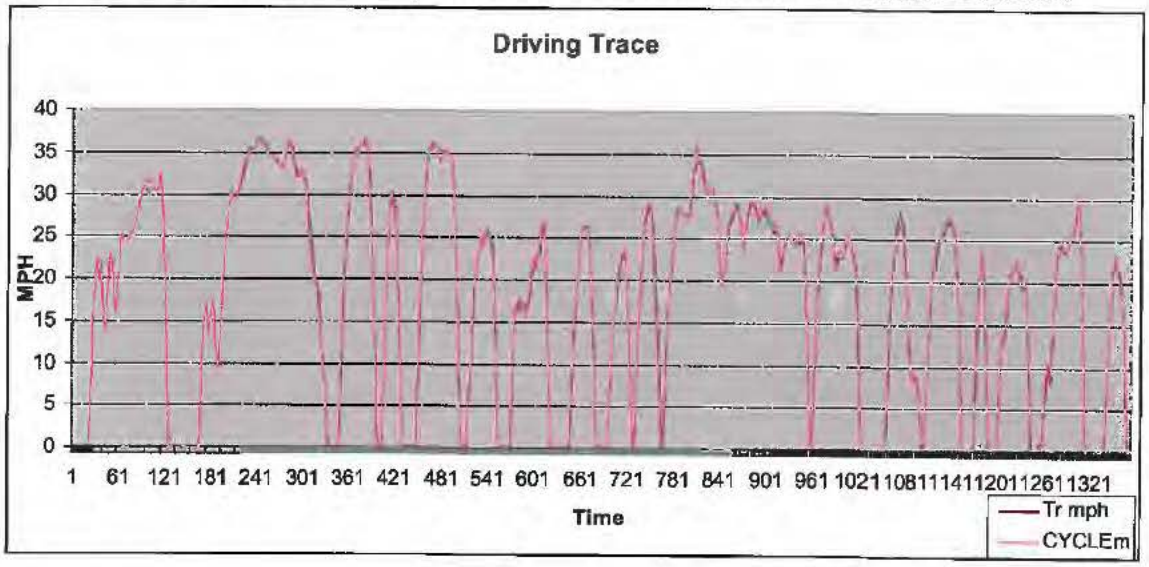
#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	1.4	0.0 for	0.0	0.0 for	0.0	531
2	PHASE 1	2.885	4.637	505.0	0.0 for	0.0	0.0 for	0.0	531
3	PHASE 2	3.920	6.301	867.0	0.0 for	0.0	0.0 for	0.0	531
4	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	513
5	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	Soak+bl	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 0.0
PHASE 1 6.805 10.938 1373.4 VOLUME=12982.7

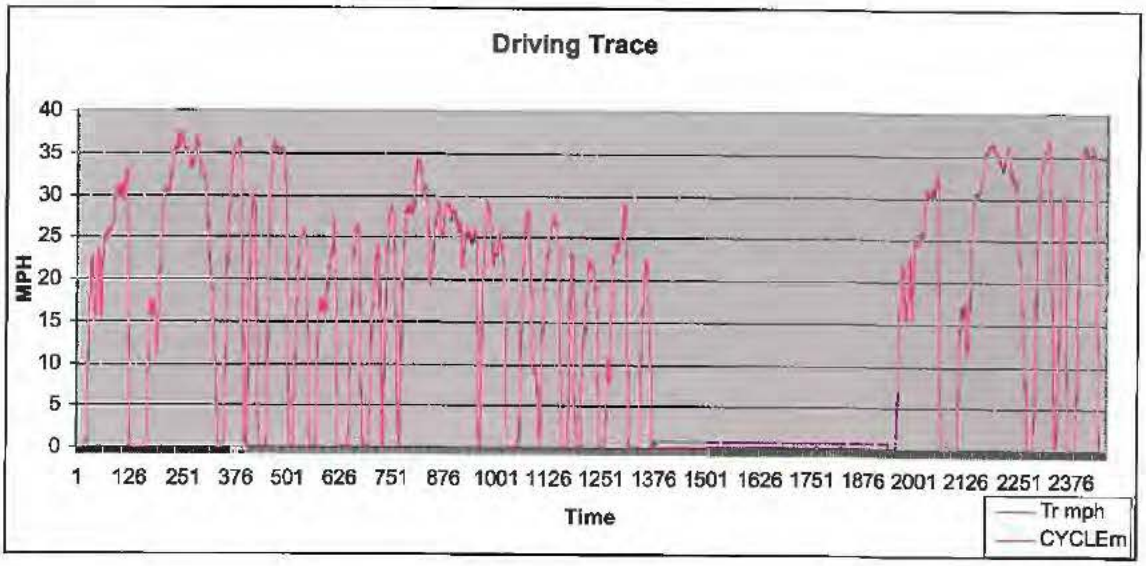
REMARKS |AFTER 2500Km
REMARKS |
REMARKS |

CEE Quality Audit
Accept ✓ Reject
Date 7-17-14 By: L. Bianchi

Test: V6005448 7/15/2014 Prep EDV 10 CY150A Vin.L9NTELKA1D1050106



Test:V6005449 7/16/2014 FTP EDV10 CY150A Vin.L9NTELKA1D1050106



CEE Quality Audit
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Date 7-17-14 By:

Deterioration Factors page extracted from the certification application for

Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707

Test Date: 6/4/2014

CEE Project Number:
1300006-13

Prepared for:
TAO TAO, USA

Report Prepared by:

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 4-16-14

Test Vehicle

Test Vehicle: EDV 11
Engine Family: ETAOXO.12A1T
Vehicle Model: ATA125-D
VIN Number: L5NAAHTJ3E1037815

Test Procedures and Equipment

The ATA110B off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
    a. Horiba Model FIA 220
    b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
    a. Methane analyzed by a Bendix GC
    b. Horiba Model FIA 220 Analyzer
    c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
    a. Horiba Model AlA 210 (High Range)
    b. Ranges: 0.5%, 2%
    c. Horiba Model AlA 220 (Low Range)
    d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
    a. Horiba Model AlA 220
    b. Ranges: 2, 4%
4. NOx (CLD)
    a. Horiba Model CLA 220
    b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its "as-received" condition only on the basis that the vehicle's air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.

Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005325	6/4/2014	0.206	0.319	0.525	2.039
Multiplicative Deterioration Factors (provided by TaoTao)				1.019	1.000
Full Useful Life Emissions				0.535	2.039

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: ATA 110 B

Vehcile Color: Red

Last Six of Vin# 037815

Received at CEE Time: 11:35

Received by: LP Swiewicki

Receipant Signature: L P Swiewicki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____

Motorcycle/ATV check-in procedure

PJ# 1300006-13

	As Received	Adjusted
Check vehicle VIN#. 15NAAHJJ3E1037815		
Check Engine Family# ETA0X0.12A1T		
Check oil level	Full	
Check Spark plug gap	0.6	
Check Valve clearance-intake	.005	
exhaust	.005	
Check Tire pressure	24psi	
Check battery voltage	12V	
Start unit and let idle check RPM	NO	
Send to Lab		

Date 5-19-14

Tech. [signature]

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle Pre-Test Data Sheet

Date: 5-16-14 Project No. 1300006--13

Make: TAO TAO Model ATA 110B

Vin#. LSNAAHTJSF1037815 Year: 2014

Odometer: N/A Color: Red

Displace: 110 cc Fuel System: 1x1V

Trans: Auto PCV: X Yes ____ No

Fuel Cap. 2.3L = 0.6gal X 50% 0.3gal

Eng. Fam. EJA0X0.12A1T Evap Fam. ____

Curb Wt. 185lbs = 83.9+80 = 163.9KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.000 C 0.0241

Special Instructions: ____

California Environmental Engineering - 2530 South Birch Street – Santa Ana, CA 92707 Phone: (714) 545-9822 Fax: (714) 545-7667

TaoTao Project Work Sheet

Project # 1300006-13 EDV # 11

Vin# LSNAAHTJ3E1037815 Req. Miles 250KM

Work Required	Date Completed	Tech.
Check-in	5-19-14	
Pictures	5-19-14	
Durability 250KM	6-2-14	
Precondition	6-3-14	A.H.
Test CVS75FTP	6-4-14	AH
Data QA/QC	6-4-14	
Release		

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300006-13
CLIENT: TAO TAO
Make: TAO TAO
MODEL: ATA110 B
YEAR: 2014
VIN# LSNAAMTJ3E1037815
ENG. FAM: ETAOXO.12AIT

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS
5-29-14	9:00 AM	5:00	0	180		JDM	
							LOK OIL
6-2-14			180	251		JDM	

CX109

EPA-001464

COMMENTS: _____

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005325	DATE	06-04-2014	RANGE	AUTO
VEHICLE REF	1300006-13	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ3E1037815	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KM	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	261.5Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST WOT				
REMARKS	LOW SPEED TRACE				
REMARKS	W.O.T.				
START TIME	11:34:32	END TIME	12:15:39	FINAL ODO.	276.4KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	Ready	0.000	0.000	0.2	0.0 for	0.0	218.1 for	-73.7	1
2	Delay 10	0.000	0.000	10.0	0.0 for	0.0	362.4 for	-22.8	1
3	Ready	0.000	0.000	0.6	0.0 for	0.0	458.3 for	-34.0	281
4	Crank	0.000	0.000	3.2	0.0 for	0.0	804.1 for	-13.0	795
5	Phase 1	2.687	4.318	505.0	0.0 for	0.0	1486.6 for	-1.2	787
6	Phase 2	3.869	6.218	864.0	0.0 for	0.0	1593.5 for	-71.4	1831
7	Eng Off	0.000	0.000	2.6	0.0 for	0.0	1737.2 for	-22.1	1835
8	Phase 2	0.000	0.000	5.0	0.0 for	0.0	1832.7 for	-33.5	1827
9	Soak+bl	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	775
10	Soak	0.022	0.036	525.0	0.0 for	0.0	0.0 for	0.0	2
11	Ready	0.000	0.001	13.7	0.0 for	0.0	0.0 for	0.0	3
12	Crank 3	0.000	0.000	1.5	0.0 for	0.0	0.0 for	0.0	835
13	Phase 3	2.697	4.335	505.0	0.0 for	0.0	0.0 for	0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for	0.0	0.0 for	0.0	3
15	Bags	0.000	0.000	1.0	0.0 for	0.0	0.0 for	0.0	7

TEST COMPLETED 2452.9 SECONDS DVT= 274.6

PHASE 1	THC	CO	NOx	CO2	NMHC				
SAMPLE	28.60	57.2	10.1	0.196	2.7	Tdry=	73.8	Tdp =	53.2
AMBIENT	4.39	0.7	0.0	0.045	2.0	BARO.=	753.50	SEC =	508.8
GRAMS	1.120	5.262	1.447	222.11	1.085	NoxKf=	0.937	VOLC=	2824.0
GMS/MI	0.417	1.958	0.539	82.66	.403	M.P.G.	102.37	DF =	65.500
G/Mwgt	0.073	0.345	0.095	14.57	.071	MPGnhv	103.44	MI =	2.687
						R-H =	48.60	KM =	4.319

PHASE 2	THC	CO	NOx	CO2	NMHC				
SAMPLE	19.28	86.4	7.8	0.159	2.7	Tdry=	73.7	Tdp =	53.1
AMBIENT	3.97	0.4	0.1	0.044	1.9	BARO.=	752.70	SEC =	871.6
GRAMS	1.215	13.731	1.890	290.13	1.149	NoxKf=	0.936	VOLC=	4842.3
GMS/MI	0.314	3.549	0.489	74.99	.297	M.P.G.	109.27	DF =	79.024
G/Mwgt	0.157	1.774	0.244	37.49	.148	MPGnhv	110.08	MI =	3.869
						R-H =	48.50	KM =	6.219

PHASE 3	THC	CO	NOx	CO2	NMHC				
SAMPLE	21.50	104.7	10.6	0.184	2.9	Tdry=	71.8	Tdp =	52.5
AMBIENT	3.34	0.6	0.1	0.044	1.9	BARO.=	752.20	SEC =	506.5
GRAMS	0.838	9.673	1.492	205.51	.793	NoxKf=	0.931	VOLC=	2818.1
GMS/MI	0.311	3.587	0.553	76.20	.294	M.P.G.	107.61	DF =	68.152
G/Mwgt	0.073	0.840	0.130	17.84	.068	MPGnhv	108.37	MI =	2.697
						R-H =	50.60	KM =	4.335

****

WEIGHTED	THC	CO	NOx	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.331	3.277	0.513	76.62	.315	M.P.G.	107.60	NHVmpg	108.452
GRAMS/KM	0.206	2.039	0.319	47.67	.196	L/100k	2.19	NHVkpl	46.111

****

CEE Quality Audit

Accept ✓ Reject ____

Date 6-4-14 By: L. Guinch

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005325	DATE	06-04-2014	RANGE	AUTO
VEHICLE REF	1300006-13	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ3E1037815	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	261.5Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	CONFIRMATORY TEST				
REMARKS	LOW SPEED TRACE				
REMARKS	W.O.T.				

MODE		THCd4A	COLd1A	NOXd2A	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	27.52	58.7	10.1	0.196	2.81	11:45:11
ZERO	set	1.32	2.0	0.3	0.000	0.01	11:46:11
OFFSET 10% Lim		+1.3	+2.0	+1.0	+0.0	+0.0	
SPAN	set	98.38	99.9	26.8	1.977	48.80	11:47:12
OFFSET 10% Lim		-0.0	+3.6	-2.3	+2.1	+1.2	
ZERO	set	-0.21	0.0	-0.3	0.001	0.01	11:48:13
AMBIENT1	read	4.39	0.7	-0.3	0.045	2.02	11:49:13
SAMPLE1	read	28.60	57.2	10.1	0.196	2.73	11:50:13
ZERO	chek	-0.02	0.1	-0.5	0.001	0.00	11:51:13
SPAN	chek	98.63	97.1	27.6	1.932	47.63	11:52:13
SPAN VALUES		98.40	96.3	27.5	1.935	48.20	END # 1

MODE		THCd3A	COLd2A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	20.20	89.8	7.8	0.163	2.76	11:58:13
ZERO	set	0.12	0.0	0.2	0.000	0.01	12:00:01
OFFSET 10% Lim		+0.1	+0.0	+0.7	+0.0	+0.0	
SPAN	set	97.60	233.6	27.4	1.960	48.66	12:01:18
OFFSET 10% Lim		-0.8	+1.2	-0.3	+1.2	+0.9	
ZERO	set	-0.15	-0.5	0.1	0.001	0.01	12:02:19
AMBIENT2	read	3.97	0.4	0.1	0.044	1.99	12:03:19
SAMPLE2	read	19.28	86.4	7.8	0.159	2.79	12:04:19
ZERO	chek	0.04	0.0	-0.1	0.000	0.00	12:05:19
SPAN	chek	98.40	229.6	27.2	1.933	47.49	12:06:19
SPAN VALUES		98.40	230.0	27.5	1.935	48.20	END # 2

MODE		THCd3A	COLd2A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	22.11	162.2	11.4	0.185	2.86	12:16:09
ZERO	set	0.50	0.2	0.3	0.001	0.01	12:17:09
OFFSET 10% Lim		+0.5	+0.1	+1.0	+0.0	+0.0	
SPAN	set	97.91	231.7	28.2	1.951	48.46	12:18:10
OFFSET 10% Lim		-0.5	+0.6	+2.3	+0.8	+0.5	
ZERO	set	-0.44	0.1	0.1	0.000	0.01	12:19:11
AMBIENT3	read	3.34	0.6	0.1	0.044	1.98	12:20:11
SAMPLE3	read	21.50	104.7	10.6	0.184	2.92	12:21:11
ZERO	chek	-0.31	-0.2	-0.1	-0.001	0.01	12:22:11
SPAN	chek	98.05	231.5	27.5	1.947	47.80	12:23:11
SPAN VALUES		98.40	230.0	27.5	1.935	48.20	END # 3

CEE Quality Audit
Accept ✓ Reject
Date 6-4-14 By:

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005325

Make:	TAO TAO	Eng. Fam:	ETAOXO.12A1T
Model:	ATA110B	Evap Fam:	
Year:	2014	Date:	June 4, 2014
VIN:	L5NAAHTJ3E1037815	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.40
DF	65.50
V-Mix	2824.00
Miles	2.69
Km	4.32
Nox kf	0.94

Phase II Inputs	
Ambient	0.00
Sample	0.50
DF	79.02
V-Mix	4842.30
Miles	3.87
Km	6.23
Nox kf	0.94

Phase III Inputs	
Ambient	0.00
Sample	0.60
DF	68.15
V-Mix	2818.10
Miles	2.70
Km	4.34
Nox kf	0.93

Phase I Results	
N2Oconc	0.400
N2O mass	0.059
g/mi	0.022
g/km	0.014
g/m wgt	0.009
g/km wgt	0.006

Phase II Results	
N2Oconc	0.500
N2O mass	0.125
g/mi	0.032
g/km	0.020
g/m wgt	0.032
g/km wgt	0.020

Phase III Results	
N2Oconc	0.600
N2Omass	0.088
g/mi	0.032
g/km	0.020
g/m wgt	0.019
g/km wgt	0.012

Total N2O in Grams per mile	**0.060302067**
Total N2O in Grams per kilometer	**0.037469968**

(II) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft^3 (1.83 kg/m^3), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

$V_{mix} \times Density_{N2O} \times (N_2O_{conc} / 1{,}000{,}000)$

(B) $N_2O_{conc} = N_2O_e - N_2O_d (1 - (1/DF))$.

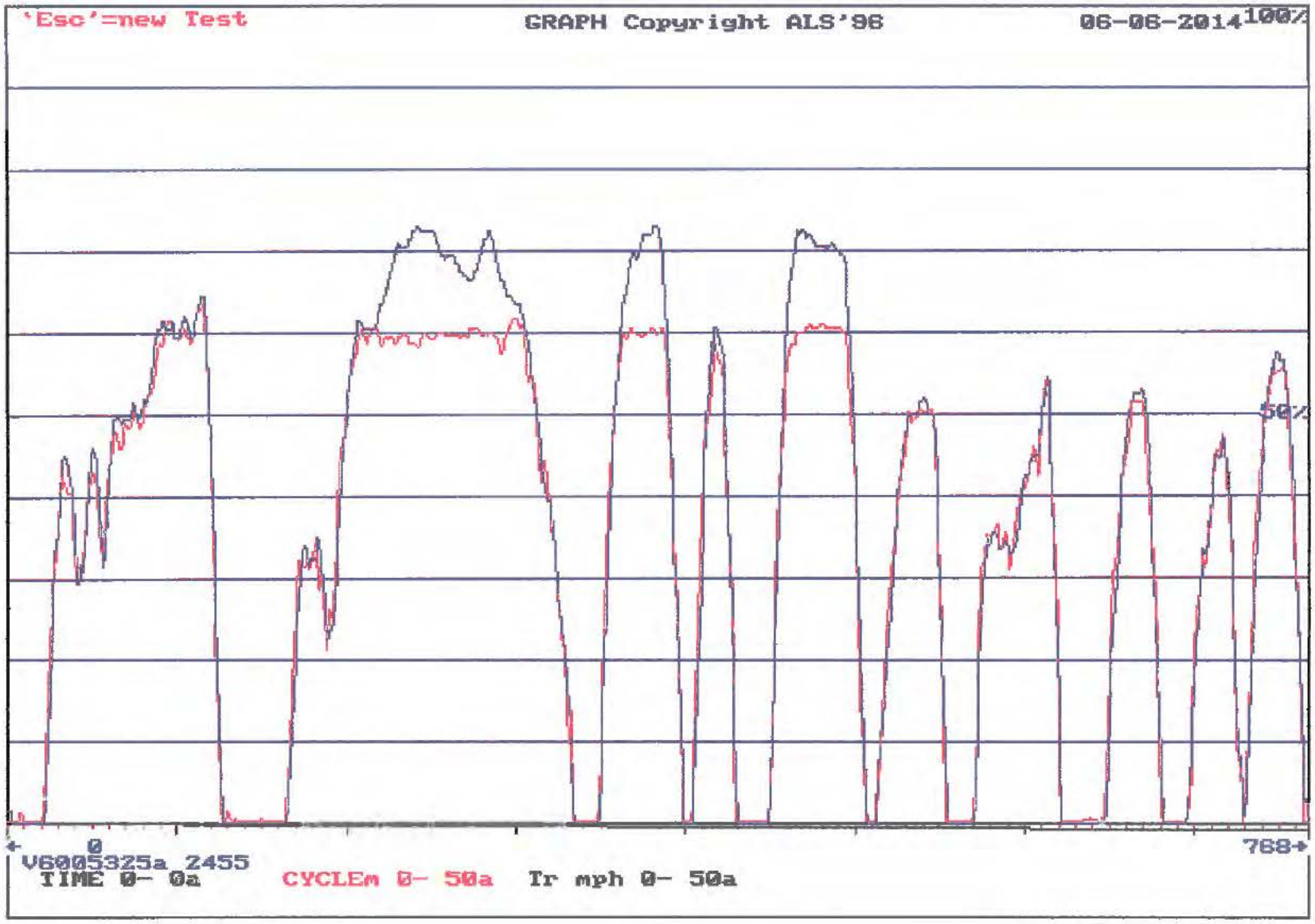
Title 40: Protection of Environment

PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit

Accept ✓ Reject ____

Date 6-4-14 By: L. Heinrich



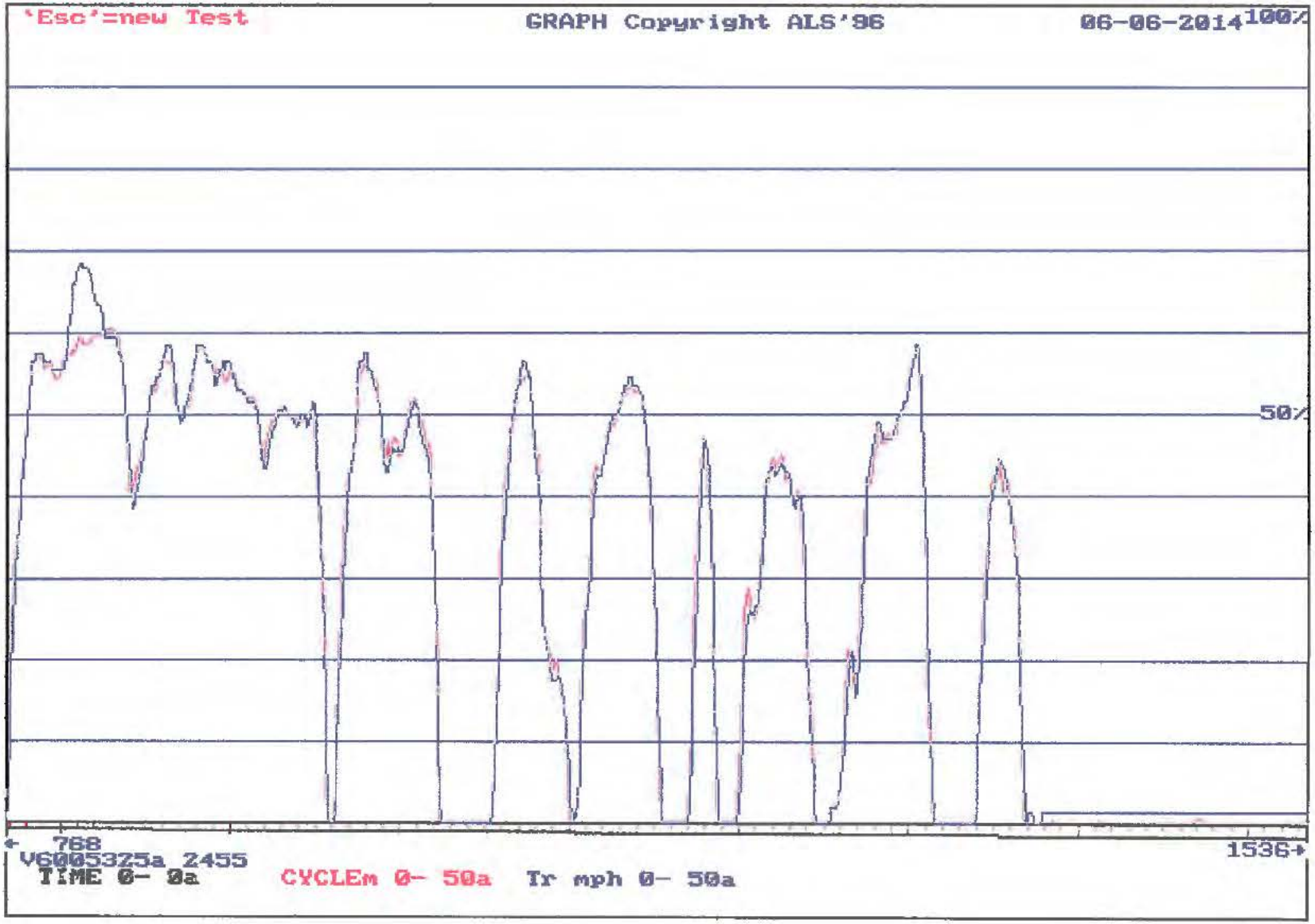
CEE Quality Audit

Accept ✓ Reject ____

Date 6-4-14 By: [signature]

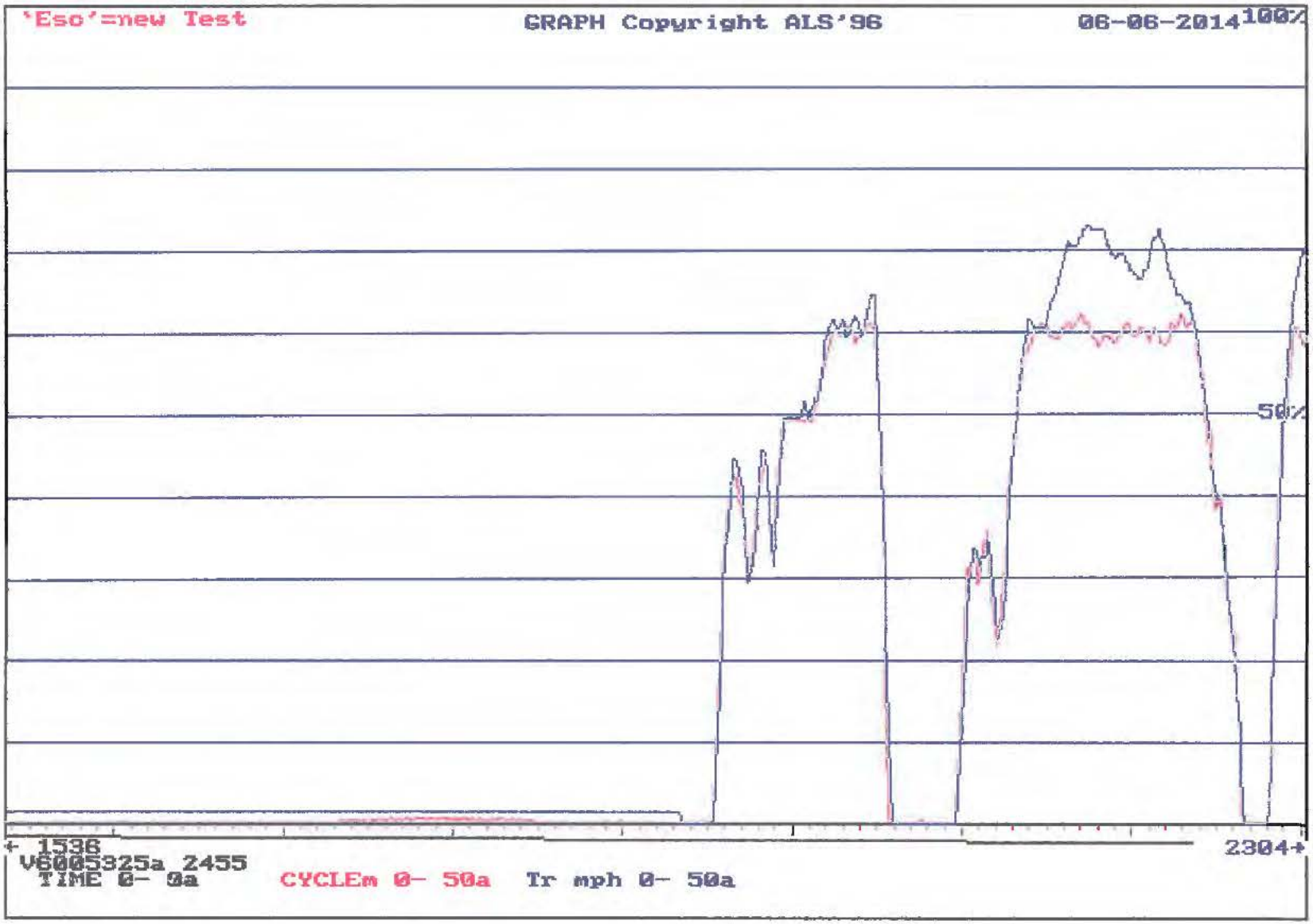
CX109

EPA-001469



CX109

EPA-001470



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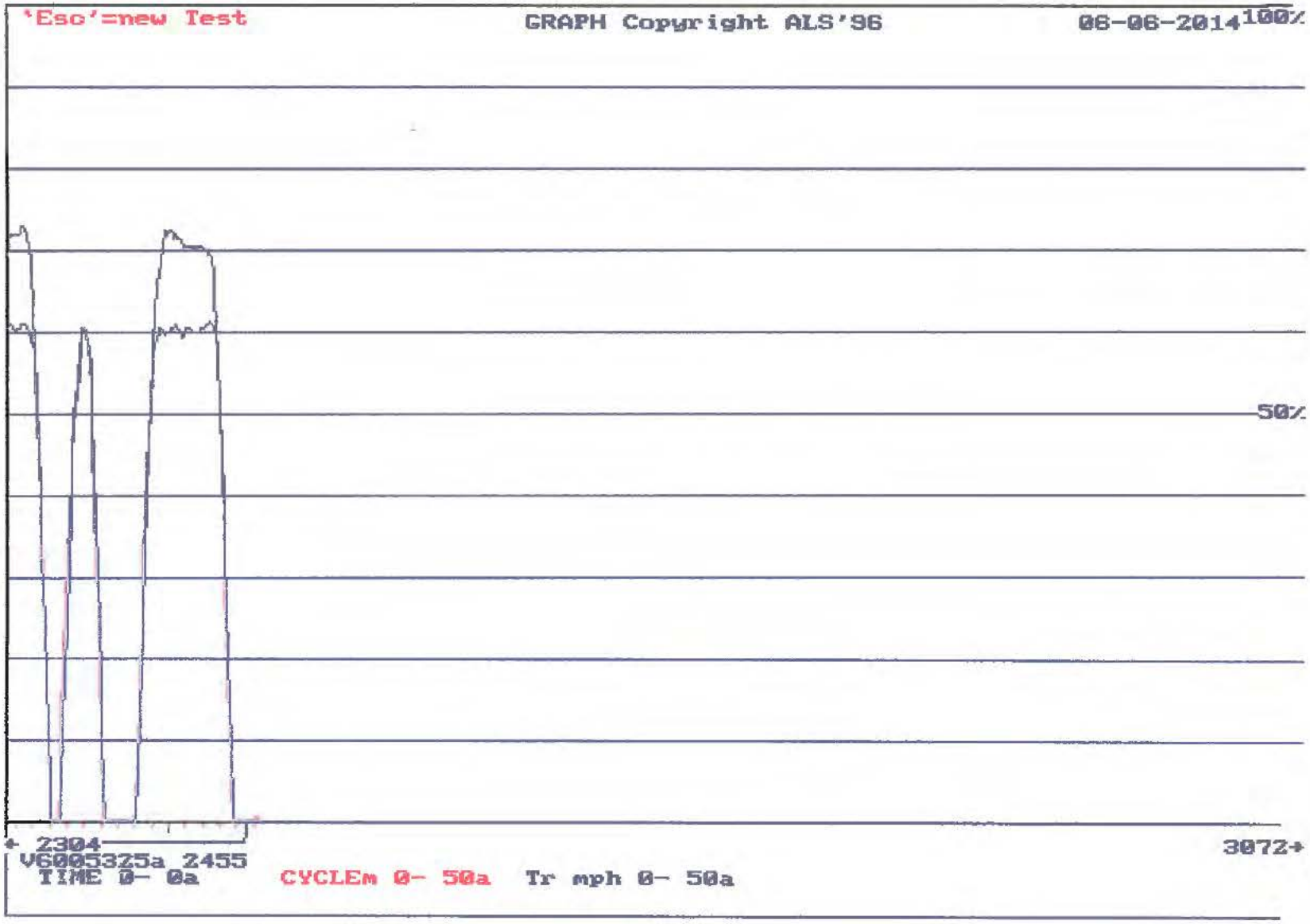


California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

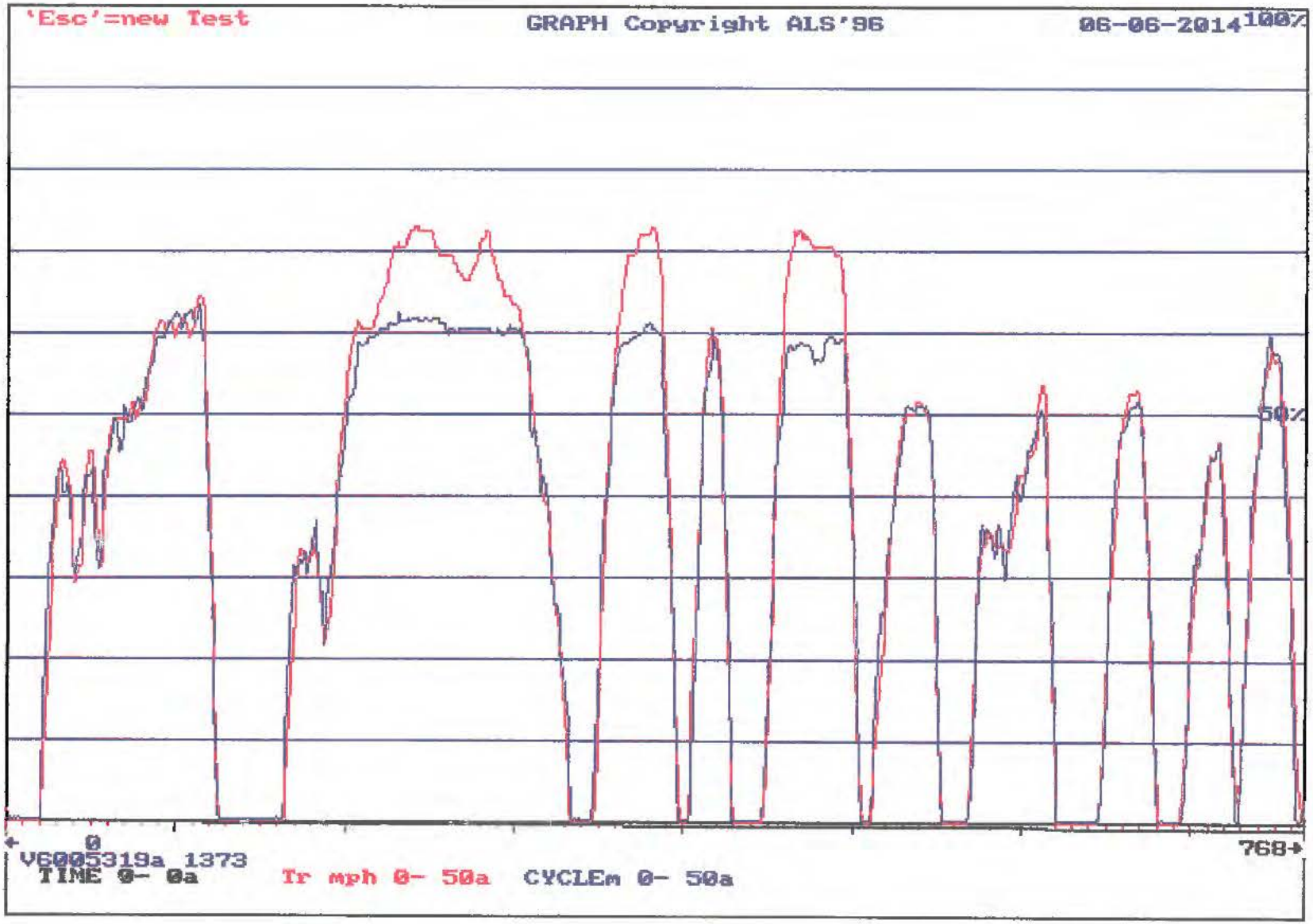
TEST NUMBER	V6005319	DATE	06-03-2014	RANGE	AUTO
VEHICLE REF	1300006-13	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L5NAAHTJ3E1037815	ENGINE FAM.	ETA0X0.12A1T	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___.MCT	FUEL Fract.	.8646
MODEL	ATA110B	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.3	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	251Km	F1_SET_SI	0.000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS	CONFIRMATORY TEST				
REMARKS	W.O.T.				
REMARKS					
START TIME	14:25:50	END TIME	14:48:43	FINAL ODO.	261.5KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	1.6	0.0 for	0.0	226.7 for	-3.2	531
2	PHASE 1	2.700	4.340	505.0	0.0 for	0.0	232.6 for	-18.4	531
3	PHASE 2	3.855	6.196	867.0	0.0 for	0.0	256.6 for	-5.0	531
4	END	0.000	0.000	0.0	0.0 for	0.0	277.3 for	-8.1	513
5	END	0.000	0.000	0.0	0.0 for	0.0	364.5 for	-4.4	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	370.4 for	-12.6	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	460.6 for	-30.7	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	Soak+bl	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 83.9
PHASE 1 6.555 10.535 1373.6 VOLUME= 7879.3

REMARKS	CONFIRMATORY TEST
REMARKS	
REMARKS	

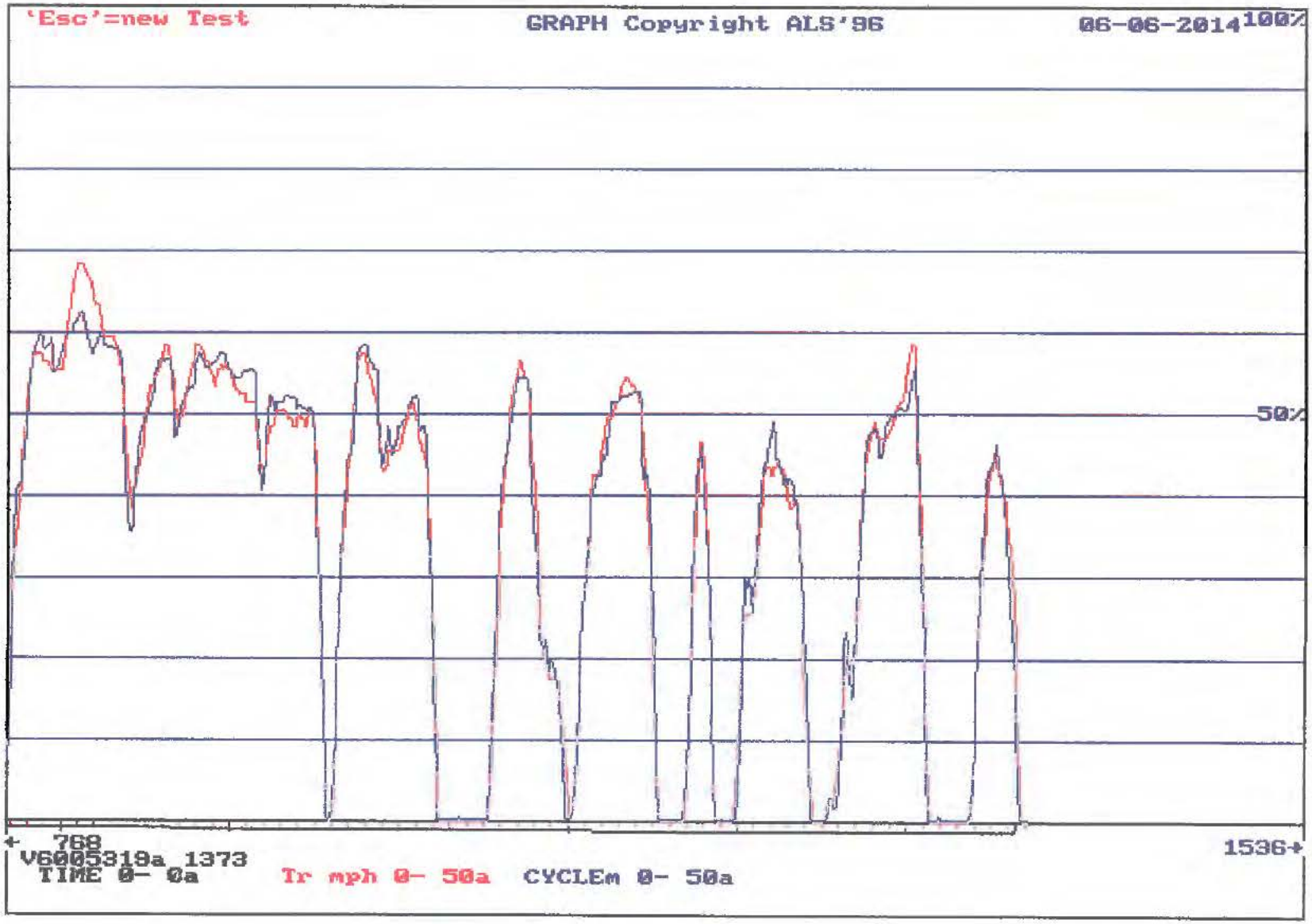
CEE Quality Audit
Accept ✓ Reject
Date 6-4-14 By:



CEE Quality Audit
Accept ✓ Reject
Date 6-4-14 By: L. Stanek

CX109

EPA-001474



CX109

EPA-001475

Deterioration Factors page extracted from the certification application for

Conducted by:

California Environmental Engineering, LLC
Santa Ana, California 92707
Test Date: 7/18/2014

CEE Project Number:
1300006-14

Prepared for:
TAO TAO, USA

Report Prepared by:

Larry Swiencki, Project Manager
California Environmental Engineering, LLC

Date: 7-21-14

Test Vehicle

Test Vehicle: EDV 12
Engine Family: CTAOC.049MC1
Vehicle Model: CY50A
VIN Number: L9NTEACW5C1000001


VEHICLE EMISSION CONTROL INFORMATION
07/2012
LSNTEAC15C1000001

Test Procedures and Equipment

The ATA110B off road atv was subjected to emission testing in conformity with the applicable specifications set forth in 40 CFR Part 1051 to determine the levels of regulated exhaust emissions.

Prior to emission testing, the test vehicle was first checked in, and vehicle information was recorded and photos were taken (see Attachment A). The test vehicle was then aged to the low hour testing point to stabilize engine emission levels in conformity with 40CFR 1051.501(b). Aging of the test vehicle includes operating the test vehicle on a chassis dynamometer as per the Appendix IV of the 40 CFR Part 86 Durability Driving Procedures. After the completion of the aging, the vehicle was preconditioned for test the day before the emissions testing as per for the 40 CFR Part 1051 and Part 86.

For this emissions testing program, CEE tested the vehicles using the CVS bag analysis method, as per for the 40 CFR 86.509-90. The Horiba CVS Model 48 with Critical Flow Venturi system is used for dilute sample collection, and dilute and ambient sample bags are analyzed using the Horiba bag analysis system, which contains analyzers of the type specified in 40 CFR 86.511-90(b). The bench consists of Horiba 200 series gas analyzers and all associated solenoids, piping, flowmeters and pumps. Specifically, analyzers are as follows:

1. Total Hydrocarbons (Flame Ionization)
    a. Horiba Model FIA 220
    b. Ranges: 30, 100, 300 ppm C
2. Non-Methane Hydrocarbons (Flame Ionization)
    a. Methane analyzed by a Bendix GC
    b. Horiba Model FIA 220 Analyzer
    c. Ranges:10, 30, 100 ppm C
1. Carbon Monoxide (NDIR)
    a. Horiba Model AIA 210 (High Range)
    b. Ranges: 0.5%, 2%
    c. Horiba Model AIA 220 (Low Range)
    d. Ranges: 50, 500 ppm
3. Carbon Dioxide (NDIR)
    a. Horiba Model AIA 220
    b. Ranges: 2, 4%
4. NOx (CLD)
    a. Horiba Model CLA 220
    b. Ranges: 10, 30, 100, 300 ppm

The test vehicle was driven on a 20" Real Time Motorcycle/ATV chassis dynamometer according to the requirements of 40 CFR 86.515-78 on the driving schedule specified in paragraph I of Appendix I to Part 86, as required by 1051.501(b). The dynamometer complies with the requirements of 40 CFR 86.508-78 and is calibrated in accord with 40 CFR 86.518-78. Road load and inertial simulation are provided by electric motor and both are computer controlled according to the requirements of 40 CFR 86.529-98. A variable speed blower compliant with the requirements of 40 CFR 86.508-78 is used. All emission related calculations are performed automatically by ALS software code designed in compliance with the specifications of 40 CFR 86.544-90, and emissions results are reported in grams/kilometer.

Carburetor Adjustability Determination

The test vehicle was tested in its "as-received" condition only on the basis that the vehicle's air fuel ratio is not adjustable. The carburetor bowl had breakaway screws with no slot. We tried to remove the screws with basic hand tools but could not get either screw removed. Thus, we determined that this carburetor was non-adjustable. Please see photos below.

Test Results

The complete test report is provided in Attachment B. The useful life emissions for the test vehicle were calculated based on the low-hour test data and deterioration factors provided by the Tao Tao.

Test Number	Test Date	Emissions Results (g/km)			
		HC	NOx	HC+NOx	CO
V6005459	7/18/2014	0.266	0.358	0.624	2.179
Multiplicative Deterioration Factors (provided by TaoTao)				2.163/0.0	1.137
Full Useful Life Emissions				0.933	2.478

Test Vehicle Retention

Each test vehicle will be retained at CEE for a minimum of 90 days after testing.

Attachment A

Vehicle Receipt
Check-In Sheet
Pre-Test Data Sheet
Project Work Sheet
Mileage Log

TaoTao Vehicle Receipt

Date: 5-16-14

Vehicle Model: QY50A

Vehcile Color: RED

Last Six of Vin# 000001

Received at CEE Time: 11:50

Received by: LP Swiencki

Receipant Signature: LP Swiencki

Date: _____

Vehicle Model: _____

Vehicle Color: _____

Last Six of Vin#: _____

Released by CEE time: _____

Received by TaoTao: _____

Motorcycle/ATV check-in procedure

PJ# 1300006-14

	As Received	Adjusted
Check vehicle VIN#. 6 9NTEACW5C1000001		
Check Engine Family# CTADC.049MC1		
Check oil level	Full	
Check Spark plug gap	.6	
Check Valve clearance-intake	.005	
exhaust	.005	
Check Tire pressure	32 psi	
Check battery voltage	12V	
Start unit and let idle check RPM	NA	
Send to Lab		

Date 5-20-14

Tech. L Lynch

CEE LLC
CALIFORNIA ENVIRONMENTAL ENGINEERING

Motorcycle Pre-Test Data Sheet

MCT 31.2 MPH

Date: 5-16-14 Project No. 1300006-14

Make: TAO TAO Model CY50A

Vin#. L9NTEACW5C100001 Year: 2012

Odometer: 2.5 Color: Red

Displace: 49 cc Fuel System: 1x1V

Trans: CVT PCV: X Yes ____ No

Fuel Cap. 1.32 X 50% .66

Eng. Fam. RTAOC.049 MCI Evap Fam. ____

Curb Wt. 85KG + 80 = 165 KG

Inertia Wt. KG 160

Coefficients: A 5.19 B 0.0000 C 0.0241

Special Instructions: ____

TaoTao Project Work Sheet

Project # 1300006-19 EDV # 12

Vin# LJNTEACW5C1000001 Req. Miles 2500KM

Work Required	Date Completed	Tech.
Check-in	5-20-14	LSL
Pictures	5-20-14	LSL
Durability 2500KM	7-15-14	Brian
Precondition	7-17-14	Rene Acosta
Test CVS75FTP	7-18-14	Alex Herrera
Data QA/QC	7-21-14	LSL
Release		

MILEAGE ACCUMULATION LOG SHEET

PROJECT# 1300006-14 CLIENT: TAO TAO

Make: TAO TAO MODEL: YEAR: 2012

VIN# L9NTEACW5C1000001 ENG. FAM: CTACC.049MCJ

DATE	START TIME	END TIME	START ODO	END ODO	TOTAL MI.	TECH	COMMENTS	
1/8/14	7:15AM	11:40AM	0.0 KM	195.1KM	105.4mi	Noah		
6-20-14	8:00AM	5:29PM	195.1KM	466.9KM	252.1ML	BRAYAN		
6-23-14	8:15AM	5:00PM	466.9KM	894.7KM	899.7ML	BRAYAN U		
6-24-14	8:15AM	5:00PM	894.7KM	1133.0KM	611.8ML	BRAYAN U		
6-25-14	8:00AM	5:00PM	1133.0KM	1406.2KM	874.7ML	BRAYAN U		
6-26-14	8:00AM	5:00PM	1406.2KM	1685.6KM	1047.3ML	BRAYAN U		
6-27-14	8:00AM	7:00PM	1685.6KM	1842.3KM	1144.7ML	BRAYAN U		
7-[illegible]-14	8:00AM	5:00PM	1842.3KM	2310.8KM	1291.1ML	BRAYAN U		
7-15-14	8:00AM	2:30PM	2310.8KM	2500.0KM	1349.9ML	BRAYAN U		

COMMENTS: _____

CEE Quality Audit

Accept ✓ Reject

Date 7-15-14 By: [signature]

CX110

EPA-001488

Attachment B

Test Report

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005459	DATE	07-18-2014	RANGE	AUTO
VEHICLE REF	1300006-14	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTEACW5C1000001	ENGINE FAM.	CTA0C.049MC1	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	CY 50 A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2012	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	2500Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	TRACE REDUCED 31.2MPH				
REMARKS					
REMARKS					
START TIME	09:45:40	END TIME	10:26:50	FINAL ODO.	2522.8KM

#	EVENT	MILES	Km	TIME	TIME trace HOLD	TIME trace ERROR	GrCtrl
1	Ready	0.000	0.000	0.2	0.0 for 0.0	0.0 for 0.0	1
2	Delay 10	0.000	0.000	10.0	0.0 for 0.0	0.0 for 0.0	1
3	Ready	0.000	0.000	0.5	0.0 for 0.0	0.0 for 0.0	281
4	Crank	0.000	0.000	2.9	0.0 for 0.0	0.0 for 0.0	795
5	Phase 1	2.507	4.029	505.0	0.0 for 0.0	0.0 for 0.0	787
6	Phase 2	3.316	5.330	864.0	0.0 for 0.0	0.0 for 0.0	1831
7	Eng Off	0.000	0.000	5.7	0.0 for 0.0	0.0 for 0.0	1835
8	Phase 2	0.000	0.000	5.0	0.0 for 0.0	0.0 for 0.0	1827
9	Soak+bl	0.000	0.001	15.0	0.0 for 0.0	0.0 for 0.0	775
10	Soak	0.015	0.024	525.0	0.0 for 0.0	0.0 for 0.0	2
11	Ready	0.000	0.001	14.1	0.0 for 0.0	0.0 for 0.0	3
12	Crank 3	0.000	0.000	1.2	0.0 for 0.0	0.0 for 0.0	835
13	Phase 3	2.487	3.998	505.0	0.0 for 0.0	0.0 for 0.0	835
14	Delay 15	0.000	0.001	15.0	0.0 for 0.0	0.0 for 0.0	3
15	Bags	0.000	0.000	1.0	0.0 for 0.0	0.0 for 0.0	7

TEST COMPLETED 2456.0 SECONDS DVT= 0.6

PHASE 1	THC	CO	NOx	CO2	NMHC				
SAMPLE	29.80	93.7	12.0	0.146	2.8	Tdry=	73.9	Tdp =	53.4
AMBIENT	3.48	0.4	0.7	0.041	1.8	BARO.=	757.50	SEC =	508.4
GRAMS	1.223	8.737	1.630	155.34	1.175	NoxKf=	0.937	VOLC=	2840.2
GMS/MI	0.488	3.485	0.650	61.96	.468	M.P.G.	129.19	DF =	84.623
G/Mwgt	0.090	0.645	0.120	11.47	.086	MPGnhv	131.50	MI =	2.507
						R-H =	48.80	KM =	4.030

PHASE 2	THC	CO	NOx	CO2	NMHC				
SAMPLE	20.04	63.1	7.8	0.127	2.4	Tdry=	74.2	Tdp =	53.7
AMBIENT	3.08	0.3	0.3	0.043	1.8	BARO.=	757.50	SEC =	874.7
GRAMS	1.355	10.112	1.865	213.80	1.305	NoxKf=	0.940	VOLC=	4883.6
GMS/MI	0.409	3.049	0.563	64.48	.393	M.P.G.	126.30	DF =	99.029
G/Mwgt	0.204	1.525	0.281	32.24	.196	MPGnhv	128.03	MI =	3.316
						R-H =	48.80	KM =	5.330

PHASE 3	THC	CO	NOx	CO2	NMHC				
SAMPLE	25.92	122.6	9.6	0.139	2.7	Tdry=	74.2	Tdp =	54.1
AMBIENT	2.97	0.5	0.2	0.042	1.8	BARO.=	757.50	SEC =	506.2
GRAMS	1.061	11.376	1.358	142.83	1.017	NoxKf=	0.944	VOLC=	2825.8
GMS/MI	0.426	4.574	0.546	57.43	.409	M.P.G.	135.10	DF =	87.097
G/Mwgt	0.104	1.117	0.133	14.03	.099	MPGnhv	137.25	MI =	2.487
						R-H =	49.50	KM =	3.997

****

WEIGHTED	THC	CO	NOx	CO2	NMHC	FUEL ECONOMY			
GRAMS/MI	0.428	3.503	0.575	62.29	.411	M.P.G.	128.89	NHVmpg	130.818
GRAMS/KM	0.266	2.179	0.358	38.75	.255	L/100k	1.82	NHVkpl	55.621

****

CEE Quality Audit
Accept ✓ Reject
Date 7-21-14 By

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005459	DATE	07-18-2014	RANGE	AUTO
VEHICLE REF	1300006-14	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTEACW5C1000001	ENGINE FAM.	CTA0C.049MC1	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	EPAAH___.MCT	FUEL Fract.	.8646
MODEL	CY 50 A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2012	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	.43
ODOMETER	2509.4Km	F1_SET_SI	0.000	WT FACTOR	1
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	.57
REMARKS	TRACE REDUCED 31.2MPH				
REMARKS					
REMARKS					

MODE		THCd3A	COLd2A	NOXd0E	CO2d1A	CH4d1A	TIME
SAMPLE1	snif	30.89	87.2	25.1	0.147	2.42	09:54:50
ZERO	set	-0.07	-0.4	0.1	0.000	0.02	09:56:39
OFFSET 10% Lim		-0.1	-0.1	+0.3	+0.0	+0.0	
SPAN	set	97.23	234.2	28.0	1.918	44.38	09:58:01
OFFSET 10% Lim		-0.1	+0.7	+1.7	-0.8	-7.2	
ZERO	set	-0.11	-0.3	0.7	-0.002	0.00	09:59:02
AMBIENT1	read	3.48	0.4	0.7	0.041	1.89	10:00:02
SAMPLE1	read	29.80	93.7	12.0	0.146	2.88	10:01:02
ZERO	chek	0.06	-0.2	0.0	0.000	-0.01	10:02:02
SPAN	chek	98.03	231.9	27.0	1.935	48.06	10:02:56
SPAN VALUES		97.30	232.0	27.5	1.935	48.00	END # 1

MODE		THCd3A	COLd1A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE2	snif	20.48	52.0	7.8	0.128	4.34	10:09:24
ZERO	set	-0.02	0.4	-0.1	0.000	0.02	10:10:24
OFFSET 10% Lim		-0.0	+0.4	-0.3	+0.0	+0.0	
SPAN	set	97.58	97.7	27.4	1.927	47.82	10:12:19
OFFSET 10% Lim		+0.3	+0.8	-0.3	-0.4	-0.4	
ZERO	set	-0.16	-0.2	0.3	0.001	-0.01	10:13:20
AMBIENT2	read	3.08	0.3	0.3	0.043	1.85	10:14:20
SAMPLE2	read	20.04	63.1	7.8	0.127	2.45	10:15:20
ZERO	chek	-0.06	-0.3	0.0	0.000	-0.01	10:16:20
SPAN	chek	97.67	96.7	27.4	1.932	48.00	10:17:10
SPAN VALUES		97.30	96.9	27.5	1.935	48.00	END # 2

MODE		THCd3A	COLd1A	NOXd1A	CO2d1A	CH4d1A	TIME
SAMPLE3	snif	26.57	79.1	9.3	0.136	2.42	10:27:20
ZERO	set	0.15	-0.4	-0.2	0.000	0.00	10:28:20
OFFSET 10% Lim		+0.1	-0.1	-0.7	+0.0	+0.0	
SPAN	set	99.03	234.0	26.9	1.915	47.24	10:29:21
OFFSET 10% Lim		+1.7	+0.7	-2.0	-1.0	-1.5	
ZERO	set	-0.25	-0.5	0.1	-0.001	-0.01	10:30:22
AMBIENT3	read	2.97	0.5	0.2	0.042	1.82	10:31:22
SAMPLE3	read	25.92	122.6	9.6	0.139	2.73	10:32:22
ZERO	chek	-0.09	-0.2	0.0	-0.001	0.00	10:33:22
SPAN	chek	98.17	232.5	27.9	1.946	48.01	10:34:22
SPAN VALUES		97.30	232.0	27.5	1.935	48.00	END # 3

CEE Quality Audit
Accept ✓ Reject
Date 7-21-14 By

California Environmental Engineering

2530 South Birch Street Santa Ana, Ca. 92707

N2O Results for test number: V6005459

Make:	TAO TAO	Eng. Fam:	CTAOC.049MC1
Model:	CY50A	Evap Fam:	
Year:	2012	Date:	July 18, 2014
VIN:	L9NTEACW5C1000001	Tech:	ALEX HERRERA

Phase I Inputs	
Ambient	0.00
Sample	0.80
DF	84.62
V-Mix	2840.20
Miles	2.51
Km	4.03
Nox kf	0.94

Phase II Inputs	
Ambient	0.10
Sample	0.50
DF	99.03
V-Mix	4883.60
Miles	3.32
Km	5.34
Nox kf	0.94

Phase III Inputs	
Ambient	0.10
Sample	0.50
DF	87.10
V-Mix	2825.80
Miles	2.49
Km	4.00
Nox kf	0.94

Phase I Results	
N2Oconc	0.800
N2O mass	0.118
g/mi	0.047
g/km	0.029
g/m wgt	0.020
g/km wgt	0.013

Phase II Results	
N2Oconc	0.401
N2O mass	0.101
g/mi	0.031
g/km	0.019
g/m wgt	0.031
g/km wgt	0.019

Phase III Results	
N2Oconc	0.401
N2Omass	0.059
g/mi	0.024
g/km	0.015
g/m wgt	0.013
g/km wgt	0.008

Total N2O in Grams per mile	**0.064249915**
Total N2O in Grams per kilometer	**0.039923046**

(ii) $Density_{N2O}$ = Density of nitrous oxide is 51.81 g/ft^3 (1.83 kg/m^3), at 68 °F (20 °C) and 760 mm Hg (101.3kPa) pressure.

$V_{mix} \times Density_{N2O} \times (N_2 O_{conc} / 1{,}000{,}000)$

(B) $N_2 O_{conc} = N_2 O_e - N_2 O_d (1 - (1/DF))$.

Title 40: Protection of Environment

PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

CEE Quality Audit
Accept ✓ Reject
Date 7-21-14 By:

California Environmental Engineering
2530 S. Birch Street. Santa Ana California
****

TEST NUMBER	V6005456	DATE	07-17-2014	RANGE	AUTO
VEHICLE REF	1300006-16	A.C.		FUEL TYPE	INDOLENE
V.I.N.	L9NTEACT7E1000882	ENGINE FAM.	ETA0C.049MC2	DENSITY	16.33
OPERATOR	ALEX HERRERA	EVAP.FAM.		SPECIF. CO2	13.4
DRIVER	RENE ACOSTA			Gr.C/gal.	2433
MAKE	TAO TAO	TEST TYPE	PREPH___.MCT	FUEL Fract.	.8646
MODEL	CY 50A	SHIFT FILE	AUTO .M_T	SP. GRAVITY	.741
YEAR	2014	INERTIA WGT	160KG	N.H.V.	18489
TANK CAP	50%=.66	F0_SET_SI	5.19	WT FACTOR	0
ODOMETER	2500.1Km	F1_SET_SI	0.0000	WT FACTOR	0
TRANS.	AUTO	F2_SET_SI	0.0241	WT FACTOR	0
REMARKS	REDUCED TRACE SPEED 31.2				
REMARKS	AFTER 2500km				
REMARKS					
START TIME	13:04:48	END TIME	13:27:41	FINAL ODO.	2509.4KM

#	EVENT	MILES	Km	TIME	TIME trace	HOLD	TIME trace	ERROR	GrCtrl
1	CRANK	0.000	0.000	1.4	0.0 for	0.0	0.0 for	0.0	531
2	PHASE 1	2.477	3.981	505.0	0.0 for	0.0	0.0 for	0.0	531
3	PHASE 2	3.305	5.312	867.0	0.0 for	0.0	0.0 for	0.0	531
4	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	513
5	END	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
6	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
7	Eng Off	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
8	Phase 2	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
9	Soak+bl	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
10	Soak	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
11	Ready	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
12	Crank 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
13	Phase 3	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
14	Delay 15	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0
15	Bags	0.000	0.000	0.0	0.0 for	0.0	0.0 for	0.0	0

TEST COMPLETED 1372.0 SECONDS DVT= 0.0
PHASE 1 5.781 9.292 1373.4 VOLUME= 7655.3

REMARKS |REDUCED TRACE SPEED 31.2
REMARKS |AFTER 2500km
REMARKS |

Quality Audit
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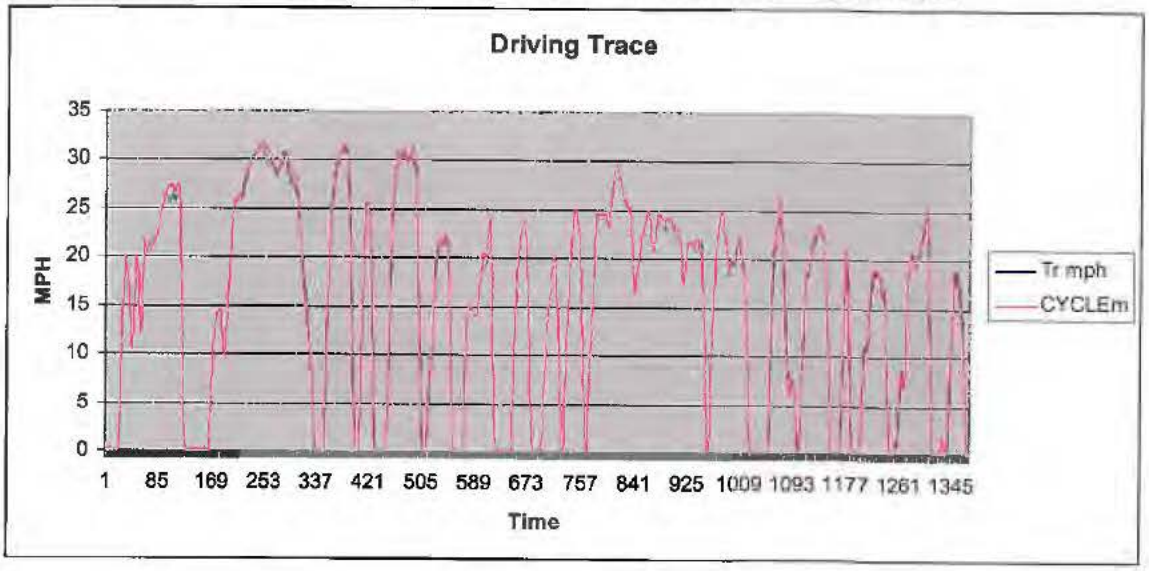
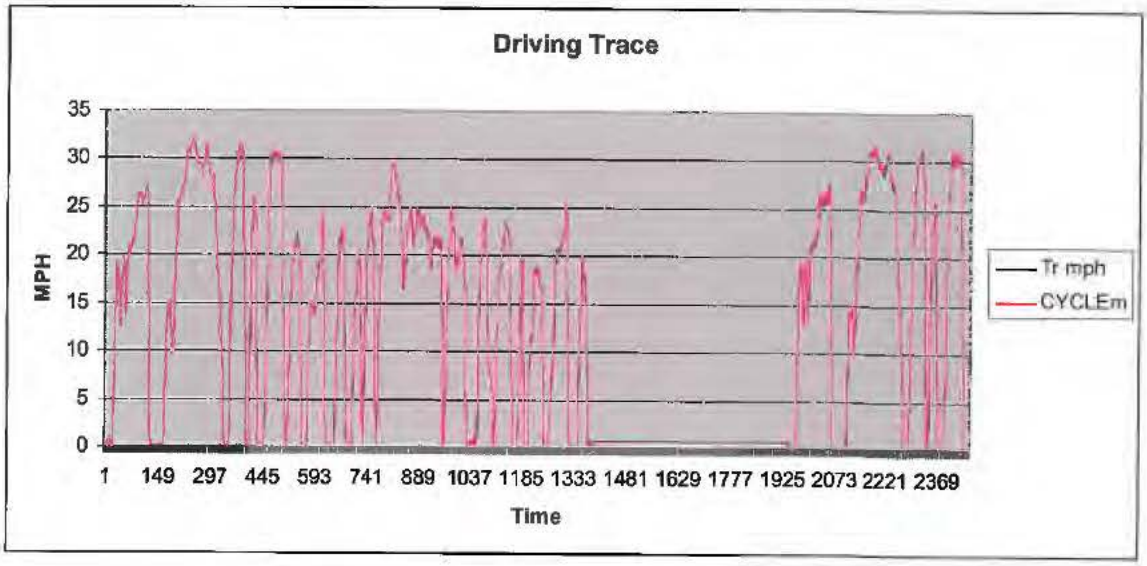
Test:V6005456 7/17/2014 Prep. EDV 12 Vin.L9NTEACW5C1000001



Test: V6005459 7/18/2014 FTP EDV12 Vin.L9NTEACW5C1000001



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Deterioration Factors page extracted from the certification application for