

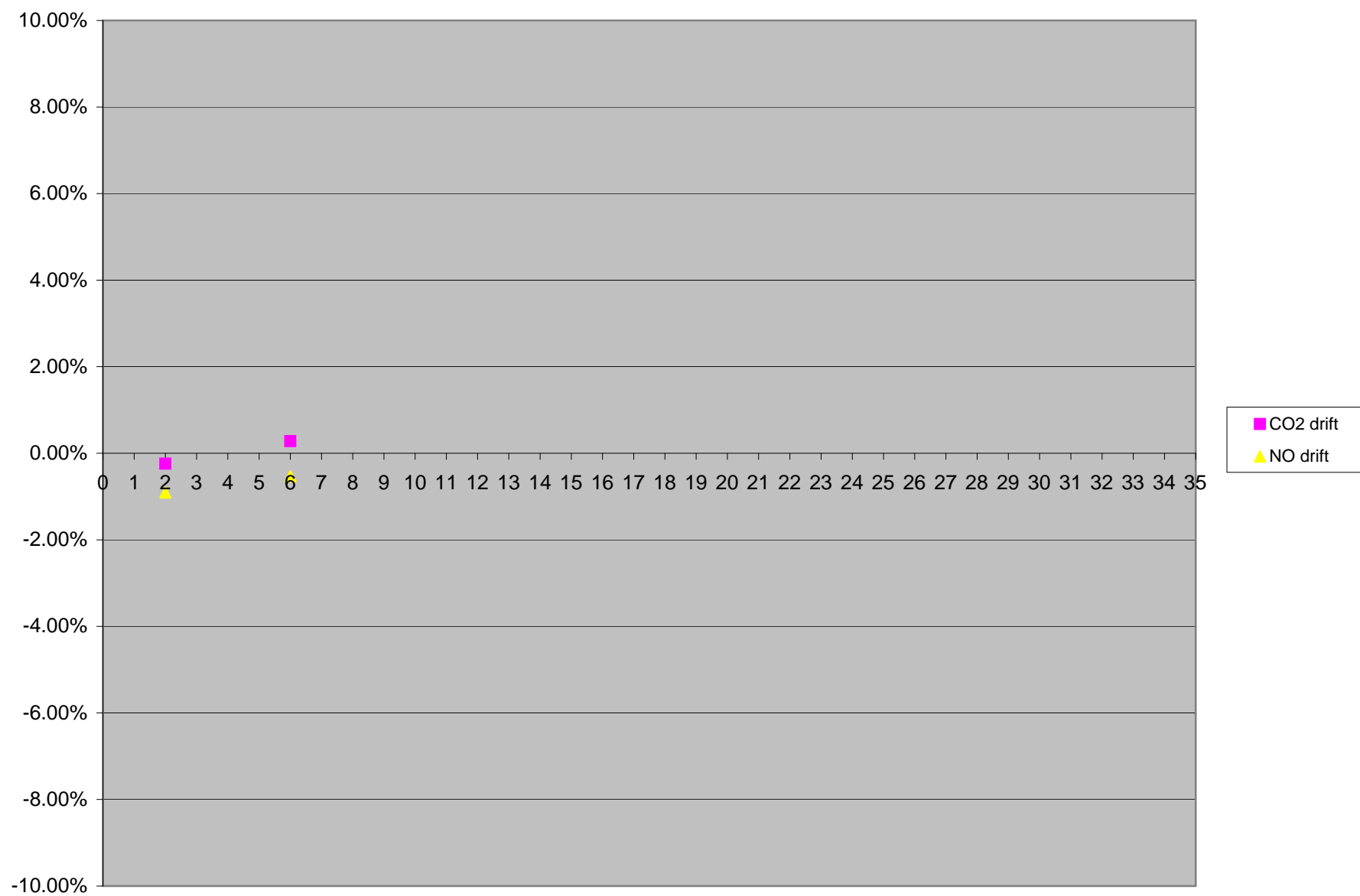
Populations, Activity and Emissions of Diesel Nonroad Equipment in EPA Region 7

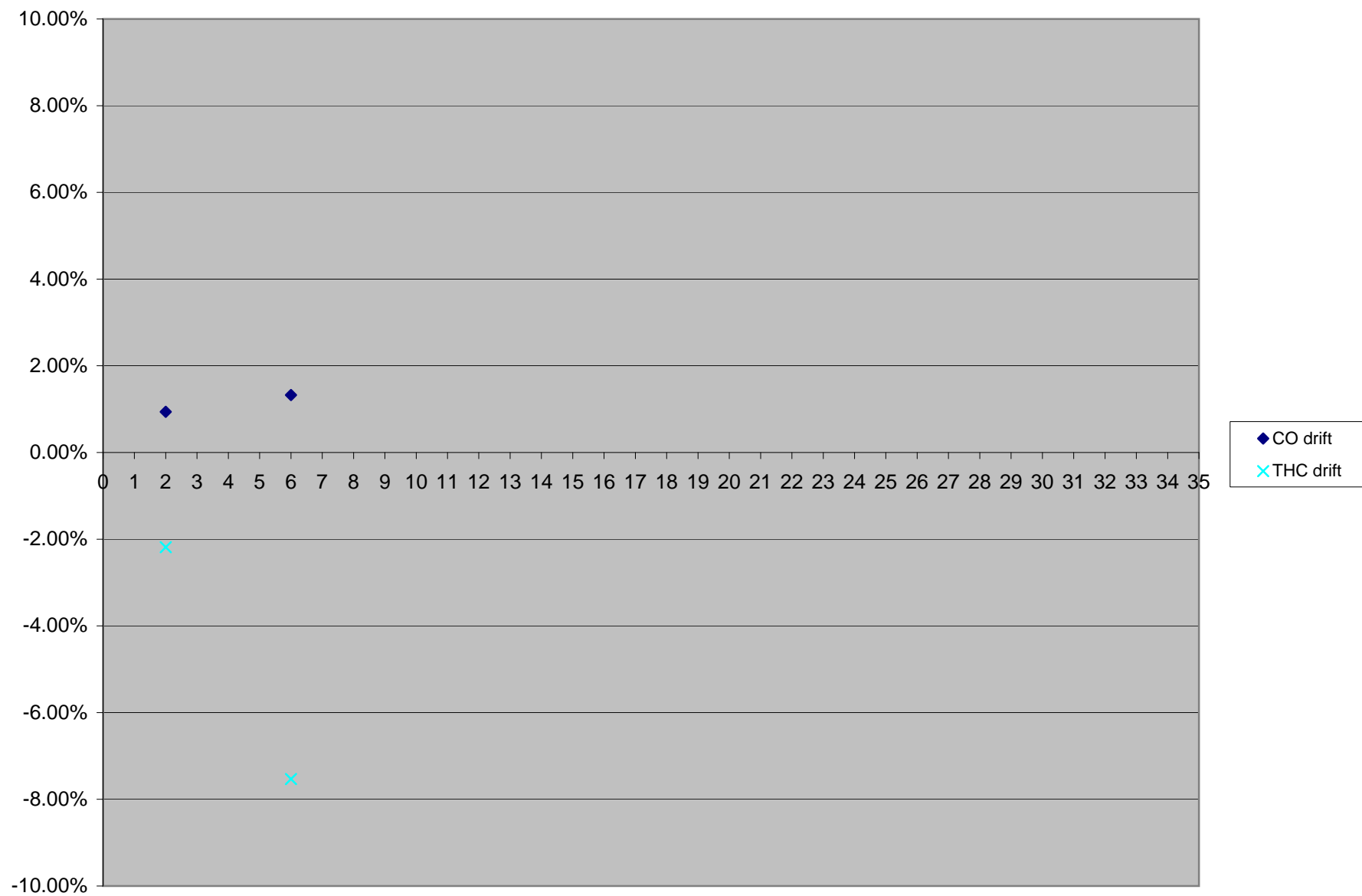
Phase 1 SEMTECH Daily Span Results Appendix Q

Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

Prepared for EPA by
Eastern Research Group, Inc. (ERG)
EPA Contract No. EP-C-06-080

Test	1688-1462	2208-1918 (a) - (c)	0685-1214	0685-2214 (a) and (b)	0008-1644	0619-0968 (a) & (b)
Date	7/2/2007	6/15/2007	6/26/2007	6/21/2007	6/29/2007	7/24/2007
CO drift		0.94%				1.33%
CO2 drift		-0.24%				0.28%
NO drift		-0.91%				-0.53%
THC drift		-2.19%				-7.53%
NO2 drift						-3.88%
Test Comments	No test data		1 xml, 1 csv - 24 minute test, no post-test audit or span	1 xml, 2 csvs, no post-test audit or span	1 xml, 1 csv, no post-test audit or span	





No test data

(a)

Audit/Span/Zero Information:

Zero

InfoVer 1
Date 6/15/2007
Time 15:58:15
Purge Delay 30
Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0.000375	-0.001333	0.001708
CO2(%)	0	-0.01	0.01
NO(ppm)	0.10625	3.793333	-3.687083
NO2(ppm)	3.81875	-1.24	5.05875
THC(ppmC)	5.2875	0.186667	5.100833

Span

InfoVer 1
Date 6/15/2007
Time 16:01:49
Purge Delay 30
Gas Path Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Values	0.12	11.9	20.9	202	1520	115	0	322

Gas	Previous	Current	Difference
CO(%)	0.121125	0	0.121125
CO2(%)	11.87125	0	11.87125
NO(ppm)	1506.194	0	1506.194
THC(ppmC)	314.9604	0	314.9604

Test Information:

SEMTECH_DAT/ 6/15/2007 43:13.8 [RELEASE_VER=2.017 BUILD=5 BDATE=06/11/2007 IP=10.10.1.55]
No Information Available

(b)

Audit/Span/Zero Information:

Zero

InfoVer 1
Date 6/15/2007
Time 9:58:38
Purge Delay 30
Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0.001687	0	0.001687
CO2(%)	0.00625	0	0.00625
NO(ppm)	-0.31875	1.313333	-1.632083
NO2(ppm)	-12.4375	-1.486667	-10.95083
THC(ppmC)	20.70625	3.153333	17.55292

Zero
 InfoVer 1
 Date 6/15/2007
 Time 10:03:23
 Purge Delay 30
 Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0	0	0
CO2(%)	0	-0.001333	0.001333
NO(ppm)	0.075	0.593333	-0.518333
NO2(ppm)	-2.5	-0.006667	-2.493333
THC(ppmC)	-0.2625	-0.04	-0.2225

Span
 InfoVer 1
 Date 6/15/2007
 Time 10:28:22
 Purge Delay 30
 Gas Path Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Values	0.12	11.9	20.9	202	1520	115	0	322

Auto-Zero Results:

Start Time 41:45.3
 Stop Time 43:49.3
 CH4 Drift Limit 5
 THC Drift Limit 5
 Purge Time 30
 Previous Path AMBIENT AIR
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.002	0	0.002	Pass
CO2	0.03	-0.010769	0.040769	Pass
NO	-5.92258	0.03871	-5.96129	Pass
NO2	11.9645	-0.054839	12.0194	Pass
CH4				
HC	3.51538	-0.146154	3.66154	Pass
THC				THC Within Drift Limit0

(c)

Audit/Span/Zero Information:

Auto-Zero Results:

Start Time 01:39.0
 Stop Time 05:08.0

CH4 Drift Limit 5
THC Drift Limit 5
Purge Time 30
Previous Path SAMPLE
Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.005	0	0.005	Pass
CO2	-0.007692	0	-0.007692	Pass
NO	-3.96333	2.90667	-6.87	Pass
NO2	-8.58333	1.66	-10.2433	Pass
CH4				
HC	11.5077	-1.32308	12.8308	Pass
THC	-7.96358	-0.130146	-7.83343	Pass0

Test Information:

SEMTECH_DAT/ 6/15/2007 56:16.0 [RELEASE_VER=2.017 BUILD=5 BDATE=06/11/2007 IP=10.10.1.5]
No Information Available

Post test span

(session a was the last session, 3:43 PM - 3:51 PM)

Alternate method:

No pre-test span, so I'll use the gas bottle values as the baseline values

CO(%)	0.94%
CO2(%)	-0.24%
NO(ppm)	-0.91%
THC(ppmC)	-2.19%

(a)

Audit/Span/Zero Information:

Zero

InfoVer 1
Date 6/26/2007
Time 7:30:18
Purge Dela 30
Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0.005	0	0.005
CO2(%)	-0.01	0	-0.01
NO(ppm)	9.175	-0.34	9.515
NO2(ppm)	-32	0.2	-32.2
THC(ppmC	-15.50625	-1.56	-13.94625

Span pre-test

InfoVer 1
Date 6/26/2007
Time 7:35:29
Purge Dela 30
Gas Path Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Valu	0.12	12	20.9	202	1520	508	0	322

Gas	Previous	Current	Difference
CO(%)	0.121312	0.118933	0.002379
CO2(%)	11.9475	11.996	-0.0485
NO(ppm)	1503.175	1522.287	-19.11167
THC(ppmC	301.4125	319.0622	-17.64972

Span

InfoVer 1
Date 6/26/2007
Time 7:39:52
Purge Dela 30
Gas Path Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Valu	0.12	12	20.9	202	1520	508	0	322

Gas	Previous	Current	Difference
NO2(ppm)	489.9813	508.14	-18.15875

Test Information:

SEMTECH 6/26/2007 29:46.9 [RELEASE_VER=2.017 BUILD=5 BDATE=06/11/2007 IP=10.10.1.55]
No Information Available

(a) & (b)

Audit/Span/Zero Information:

Zero

InfoVer 1
Date 6/21/2007
Time 7:42:21
Purge Delay 30
Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0.001	0	0.001
CO2(%)	0	0	0
NO(ppm)	-1.70625	1.053333	-2.759583
NO2(ppm)	1.0375	0	1.0375
THC(ppmC)	5	0.726667	4.273333

Span

InfoVer 1
Date 6/21/2007
Time 7:46:12
Purge Delay 30

Gas Path Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Value	0.12	11.9	20.9	202	1520	115	0	322

Gas	Previous	Current	Difference
CO(%)	0.117688	0.1196	-0.001912
CO2(%)	11.88	11.9	-0.02
NO(ppm)	1533.25	1524.08	9.17
THC(ppmC)	319.2875	321.4311	-2.143611

pre-test

Audit

Date 6/21/2007
Time 7:50:51
Audit Duration 30
Idle Duration 15

Audit Path Span

Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
CO (%)	0.5	0.005	3
CO2 (%)	5.98	0.2	3
O2 (%)	0	0.5	3
HC (ppmC)	0	8	3
NO (ppm)	300	15	3
NO2 (ppm)	0	12	3
CH4 (ppm)	0	0	0
THC (ppmC)	200	0	0

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.5	0.425933	0.174793	Failed
CO2(%)	5.98	4.88	2.152849	Failed
O2(%)	0	10	0	Not Selected
HC(ppmC)	0	500	0	Not Selected
NO(ppm)	300	215.4067	120.8343	Failed

NO2(ppm)	0	100	0 Not Selected
CH4(ppm)	0	0	0 Not Selected
THC(ppmC)	200	156.5378	81.29159 Failed

Audit

Date 6/21/2007

Time 7:51:37

Audit Durat 30

Idle Duratic 15

Audit Path Span

Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
CO (%)	0.5	0.005	3
CO2 (%)	5.98	0.2	3
O2 (%)	0	0.5	3
HC (ppmC:	0	8	3
NO (ppm)	300	15	3
NO2 (ppm)	0	12	3
CH4 (ppm)	0	0	0
THC (ppmC	200	6	3

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.5	0.504933	0.000258	Passed
CO2(%)	5.98	5.937333	0.004577	Passed
O2(%)	0	10	0	Not Selected
HC(ppmC3	0	500	0	Not Selected
NO(ppm)	300	292.7133	2.06566	Passed
NO2(ppm)	0	100	0	Not Selected
CH4(ppm)	0	0	0	Not Selected
THC(ppmC	200	198.8422	0.052654	Passed

Span

InfoVer 1

Date 6/21/2007

Time 7:54:35

Purge Dela 30

Gas Path Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Valu	0.12	11.9	20.9	202	1520	508	0	322

Gas	Previous	Current	Difference
NO2(ppm)	462.9688	508.8667	-45.89792

pre-test

Auto-Zero Results:

Start Time 05:35.7

Stop Time 07:21.7

CH4 Drift L 5

THC Drift L 5

Purge Time 30

Previous P SAMPLE

Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.004846	-0.001	0.005846	Pass
CO2	-0.01	0	-0.01	Pass
NO	-1.24839	-0.3	-0.948387	Pass
NO2	-1.5	0.23	-1.73	Pass
CH4				
HC	2.39231	0.023077	2.36923	Pass
THC				THC Within Drift Limit0

Start Time 05:38.7
 Stop Time 07:20.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	-7.69E-05	-0.000769	0.000692	Pass
CO2	0.01	0	0.01	Pass
NO	4.96667	-1.29355	6.26022	Pass
NO2	2.6	0	2.6	Pass
CH4				
HC	2.46154	-0.069231	2.53077	Pass
THC				THC Within Drift Limit0

Start Time 05:41.7
 Stop Time 11:55.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.000231	-0.000385	0.000615	Pass
CO2	0.01	0	0.01	Pass
NO	-3.26333	-0.483871	-2.77946	Pass
NO2	1.03333	-0.167742	1.20108	Pass
CH4				
HC	2.96923	0.046154	2.92308	Pass
THC	23.8875	-0.004771	23.8922	Pass0

Start Time 05:43.7
 Stop Time 07:26.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.000154	-0.000231	0.000385	Pass
CO2	0.009231	-0.006923	0.016154	Pass

NO	-3.28065	1.80323	-5.08387	Pass
NO2	6.28065	-0.312903	6.59355	Pass
CH4				
HC	1.4	0.361538	1.03846	Pass
THC				THC Within Drift Limit0

Start Time 32:26.7
 Stop Time 34:31.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.016846	0.000462	0.016385	Fail(3)
CO2	5.70333	-0.01	5.71333	Fail(3)
NO	0.164516	-0.319355	0.483871	Pass
NO2	0.135484	-0.283871	0.419355	Pass
CH4				
HC	28.9333	-0.192308	29.1256	Fail(3)
THC				THC Within Drift Limit0

Test Information:

SEMTECH 6/21/2007 42:05.9 [RELEASE_VER=2.017 BUILD=5 BDATE=06/11/2007 IP=10.10.1.55]

No Information Available

(a)

Audit/Span/Zero Information:

Span pre-test

InfoVer 1
Date 6/29/2007
Time 6:46:01
Purge Dela 30
Gas Path Span
CO CO2 O2 HC NO NO2 CH4 THC
Bottle Valu 0.12 12 20.9 202 1520 508 0 200

Gas Previous Current Difference
NO2(ppm) 459.5438 505.4667 -45.92292

Span
InfoVer 1
Date 6/29/2007
Time 6:50:11
Purge Dela 30
Gas Path Span
CO CO2 O2 HC NO NO2 CH4 THC
Bottle Valu 0.12 12 20.9 202 1520 508 0 322

Gas Previous Current Difference
CO(%) 0.123 0.128 -0.005
CO2(%) 11.96 12 -0.04
NO(ppm) 1516.944 1523.44 -6.49625
THC(ppmC) 298.0708 318.9889 -20.91806

Audit

Date 6/29/2007
Time 6:54:48
Audit Durat 30
Idle Duratic 15

Audit Path Span

Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
CO (%)	0.02	0.005	3
CO2 (%)	6	0.2	3
O2 (%)	0	0.5	3
HC (ppmC:	0	8	3
NO (ppm)	305	15	3
NO2 (ppm)	0	12	3
CH4 (ppm)	0	0	0
THC (ppmC	31	0	0

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.02	0.0014	0.005422	Failed
CO2(%)	6	0.000667	0.002582	Failed
O2(%)	0	0.666667	2.581989	Not Selected
HC(ppmC3	0	33.33333	129.0994	Not Selected
NO(ppm)	305	-0.046667	0.180739	Failed
NO2(ppm)	0	6.666667	25.81989	Not Selected
CH4(ppm)	0	0	0	Not Selected

THC(ppmC 31 0.193333 0.748777 Failed

Audit

Date 6/29/2007

Time 6:55:25

Audit Durat 30

Idle Duratic 15

Audit Path Span

Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
-----	--------	-----	------

CO (%)	0.02	0.005	3
--------	------	-------	---

CO2 (%)	6	0.2	3
---------	---	-----	---

O2 (%)	0	0.5	3
--------	---	-----	---

HC (ppmC:	0	8	3
-----------	---	---	---

NO (ppm)	305	15	3
----------	-----	----	---

NO2 (ppm)	0	12	3
-----------	---	----	---

CH4 (ppm)	0	0	0
-----------	---	---	---

THC (ppmC	31	6	2
-----------	----	---	---

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.02	0.023533	0.000516	Passed
CO2(%)	6	6.017333	0.004577	Passed
O2(%)	0	10	0	Not Selected
HC(ppmC3	0	500	0	Not Selected
NO(ppm)	305	286.3933	2.413494	Failed
NO2(ppm)	0	100	0	Not Selected
CH4(ppm)	0	0	0	Not Selected
THC(ppmC	31	31.00222	0.023458	Passed

Audit

Date 6/29/2007

Time 6:56:39

Audit Durat 30

Idle Duratic 15

Audit Path Span

Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
-----	--------	-----	------

CO (%)	0.02	0.005	3
--------	------	-------	---

CO2 (%)	6	0.2	3
---------	---	-----	---

O2 (%)	0	0.5	3
--------	---	-----	---

HC (ppmC:	0	8	3
-----------	---	---	---

NO (ppm)	305	15	3
----------	-----	----	---

NO2 (ppm)	0	12	3
-----------	---	----	---

CH4 (ppm)	0	0	0
-----------	---	---	---

THC (ppmC	31	6	2
-----------	----	---	---

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.02	0.025	0	Failed
CO2(%)	6	6.052	0.009411	Passed
O2(%)	0	10	0	Not Selected
HC(ppmC3	0	500	0	Not Selected
NO(ppm)	305	291.2133	2.329889	Passed
NO2(ppm)	0	100	0	Not Selected
CH4(ppm)	0	0	0	Not Selected

THC(ppmC 31 30.05556 0.069769 Passed

Zero

InfoVer 1
Date 6/29/2007
Time 6:58:43
Purge Dela 30
Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0.013187	0.004	0.009187
CO2(%)	0.009375	0	0.009375

Audit

Date 6/29/2007
Time 7:00:03
Audit Durat 30
Idle Duratic 15

Audit Path Span
Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
CO (%)	0.02	0.005	3
CO2 (%)	6	0.2	3
O2 (%)	0	0.5	3
HC (ppmC:	0	8	3
NO (ppm)	305	15	3
NO2 (ppm)	0	12	3
CH4 (ppm)	0	0	0
THC (ppmC	31	6	2

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.02	0.01		0 Failed
CO2(%)	6	6.013333	0.013973	Passed
O2(%)	0	10		0 Not Selected
HC(ppmC3	0	500		0 Not Selected
NO(ppm)	305	289.3	3.495099	Failed
NO2(ppm)	0	100		0 Not Selected
CH4(ppm)	0	0		0 Not Selected
THC(ppmC	31	30.85333	0.048469	Passed

Span											pre-test
InfoVer 1											
Date 6/29/2007											
Time 7:05:13											
Purge Dela 30											
Gas Path Span											
	CO	CO2	O2	HC	NO	NO2	CH4	THC			
Bottle Valu	0.12	12	20.9	202	1520	508	0	322			
Gas Previous Current Difference											
CO(%)	0.114	0.12	-0.006								
CO2(%)	11.96875	12.00267	-0.033917								

Audit

Date 6/29/2007
 Time 7:07:00
 Audit Duration 30
 Idle Duration 15
 Audit Path Span
 Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
CO (%)	0.02	0.005	3
CO2 (%)	6	0.2	3
O2 (%)	0	0.5	3
HC (ppmC)	0	8	3
NO (ppm)	305	15	3
NO2 (ppm)	0	12	3
CH4 (ppm)	0	0	0
THC (ppmC)	31	6	2

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.02	0.015	NaN	Passed
CO2(%)	6	6.03		0 Passed
O2(%)	0	10		0 Not Selected
HC(ppmC)	0	500		0 Not Selected
NO(ppm)	305	302.58	0.295683	Passed
NO2(ppm)	0	100		0 Not Selected
CH4(ppm)	0	0		0 Not Selected
THC(ppmC)	31	30.90889	0.070673	Passed

Zero
 InfoVer 1
 Date 6/29/2007
 Time 13:45:16
 Purge Delay 30
 Gas Path Sample

Gas	Previous	Current	Difference
CO(%)	-0.0025	0.001	-0.0035
CO2(%)	-0.003125	0	-0.003125
NO(ppm)	-8.8875	-0.026667	-8.860833
NO2(ppm)	-7.875	0	-7.875

Test Information:

SEMTECH 6/29/2007 44:26.8 [RELEASE_VER=2.017 BUILD=5 BDATE=06/11/2007 IP=10.10.1.55]
 No Information Available

(a) & (b)

Audit/Span/Zero Information:

Zero

InfoVer 1
Date 7/24/2007
Time 8:22:03
Purge Dela 30
Gas Path Ambient Air

Gas	Previous	Current	Difference
CO(%)	0.001	0.000067	0.000933
CO2(%)	0	0	0
NO(ppm)	-3.75625	1.66	-5.41625
NO2(ppm)	1.1	0.2	0.9
THC(ppmC	-0.15	-0.026667	-0.123333

Span

InfoVer 1
Date 7/24/2007
Time 8:26:54
Purge Dela 30

Gas Path	Span	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Valu		0.12	11.95	20.9	202	1520	508	0	322

Gas	Previous	Current	Difference
CO(%)	0.119625	0.119	0.000625
CO2(%)	11.92188	11.9	0.021875
NO(ppm)	1538.981	1524.047	14.93458
THC(ppmC	312.7354	321.34	-8.604583

Audit

Date 7/24/2007
Time 8:31:21
Audit Durat 30
Idle Duratic 15

Audit Path Span

Idle Path Ambient Air

Gas	Bottle	Tol	%Tol
CO (%)	0.02	0.005	3
CO2 (%)	6	0.2	3
O2 (%)	0	0.5	3
HC (ppmC:	0	8	3
NO (ppm)	305	15	3
NO2 (ppm)	0	12	3
CH4 (ppm)	0	0	0
THC (ppmC	31	6	3

Gas	Bottle	Mean Value	Std Dev	Result
CO(%)	0.02	0.019267	0.000458	Passed
CO2(%)	6	6.001333	0.011255	Passed
O2(%)	0	10	0	Not Selected
HC(ppmC3	0	500	0	Not Selected
NO(ppm)	305	297.9667	0.797914	Passed

NO2(ppm)	0	100	0 Not Selected
CH4(ppm)	0	0	0 Not Selected
THC(ppmC)	31	30.50667	0.058009 Passed

Span											
InfoVer	1										
Verify Only											
Date	7/24/2007										
Time	8:40:16										
Purge Dela	30										
Gas Path	Span										
	CO	CO2	O2	HC	NO	NO2	CH4	THC			
Bottle Valu	0.12	11.9	20.9		202	1520	102	0	322		
Gas	Previous	Current	Difference								
NO2(ppm)	100.4067	100.4067	0								

Zero	
InfoVer	1
Date	7/24/2007
Time	15:50:58
Purge Dela	30
Gas Path	Sample

Gas	Previous	Current	Difference
CO(%)	-0.003	0	-0.003
CO2(%)	-0.02	0	-0.02
NO(ppm)	2.80625	2.16	0.64625
NO2(ppm)	-3.75	-0.373333	-3.376667
THC(ppmC)	2.14375	0.113333	2.030417

Span											
InfoVer	1										
Verify Only											
Date	7/24/2007										
Time	16:00:40										
Purge Dela	30										
Gas Path	Span										
	CO	CO2	O2	HC	NO	NO2	CH4	THC			
Bottle Valu	0.12	11.9	20.9		202	1520	102	0	322		
Gas	Previous	Current	Difference								
CO(%)	0.1206	0.1206	0								
CO2(%)	11.93333	11.93333	0								
NO(ppm)	1515.953	1515.953	0								
THC(ppmC)	298.8267	298.8267	0								

Span	
InfoVer	1
Verify Only	
Date	7/24/2007
Time	16:04:40
Purge Dela	30
Gas Path	Span

	CO	CO2	O2	HC	NO	NO2	CH4	THC
Bottle Value	0.12	11.9	20.9	202	1520	102	0	322
Gas	Previous	Current	Difference					
NO2(ppm)	96.66	96.66	0					

Auto-Zero Results:

Start Time 56:10.7
 Stop Time 59:31.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.004308	0.000308	0.004	Pass
CO2	0.004615	0	0.004615	Pass
NO	-5.36667	-0.43	-4.93667	Pass
NO2	-2.77	4.78	-7.55	Pass
CH4				
HC	0.753846	0.446154	0.307692	Pass
THC	6.79274	-0.750948	7.54369	Pass0

Start Time 56:12.7
 Stop Time 57:53.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.000923	0	0.000923	Pass
CO2	0.01	-0.007692	0.017692	Pass
NO	-0.063333	1.13226	-1.19559	Pass
NO2	7.36667	0.225806	7.14086	Pass
CH4				
HC	1.1	0	1.1	Pass
THC				THC Within Drift Limit0

Start Time 56:15.7
 Stop Time 58:07.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.001	0	0.001	Pass
CO2	0.004615	-0.01	0.014615	Pass

NO	-4.1129	1.22258	-5.33548	Pass
NO2	3.67097	-5.64839	9.31935	Pass
CH4				
HC	1.52308	0.061539	1.46154	Pass
THC				THC Within Drift Limit0

Start Time 56:16.7
 Stop Time 59:27.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0	0	0	Pass
CO2	-0.01	-0.008462	-0.001538	Pass
NO	0.516129	0.86129	-0.345161	Pass
NO2	3.43548	0.4	3.03548	Pass
CH4				
HC	1	-0.415385	1.41538	Pass
THC	-5.46831	-0.282882	-5.18543	Pass0

Start Time 16:26.7
 Stop Time 18:07.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0.000154	0	0.000154	Pass
CO2	0	0	0	Pass
NO	2.38065	-0.119355	2.5	Pass
NO2	1.0871	1.28065	-0.193548	Pass
CH4				
HC	0.661538	0.176923	0.484615	Pass
THC				THC Within Drift Limit0

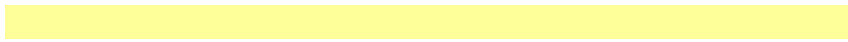
Start Time 16:28.7
 Stop Time 18:10.7
 CH4 Drift L 5
 THC Drift L 5
 Purge Time 30
 Previous P SAMPLE
 Zero Path Ambient Air

Gas	Previous	Current	Difference	Pass/Fail
CO	0	-7.69E-05	7.69E-05	Pass
CO2	0.01	-0.008462	0.018462	Pass
NO	-8.47	0.741935	-9.21194	Pass
NO2	2.49	-0.403226	2.89323	Pass
CH4				

HC 1.13846 -0.338462 1.47692 Pass
THC THC Within Drift Limit0

Test Information:

SEMTECH 7/24/2007 21:35.9 [RELEASE_VER=2.017 BUILD=5 BDATE=06/11/2007 IP=10.10.1.5]
No Information Available



pre-test

pre-test

post-test

Post-Test Span: Alternate method

CO(%)	1.33%
CO2(%)	0.28%
NO(ppm)	-0.53%
THC(ppmC)	-7.53%
NO2(ppm)	-3.88%

