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1 June 2011

**Committee D16 on Aromatic Hydrocarbons and Related Chemicals
Subcommittee D16.01 on Benzene, Toluene, Xylenes, Cyclohexane and
Their Derivatives**

Research Report D16-1042

**Interlaboratory Study to Establish Precision Statements for ASTM
D7360, Standard Test Method for Analysis of Benzene by Gas
Chromatography with External Calibration**

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1. Introduction:

Interlaboratory Study 370 was conducted to establish a precision statement for ASTM D7360, Standard Test Method for Analysis of Benzene by Gas Chromatography with External Calibration¹.

2. Test Method:

The Test Method used for this ILS is D7360-11. To obtain a copy of D7360, go to ASTM's website, www.astm.org, or contact ASTM Customer Service by phone at **610-832-9585** (8:30 a.m. - 4:30 p.m. Eastern U.S. Standard Time, Monday through Friday) or by email at service@astm.org.

3. Participating Laboratories:

The following laboratory participated in this intralaboratory study:

Lab DCG Partnership I, Ltd. 4170 A
Main, Pearland, TX 77581
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4. Description of Samples:

There were 10 samples of varying targeted results used for this study. Each sample was prepared and distributed by Alejandro Gonzalez of DCG Partnership. Below is a list of the samples with the corresponding supplier:

Sample 1

compound	wt %	mg/kg
methylcyclohexane	0.00030	2.96326
toluene	0.00029	2.91893
1,4-dioxane	0.00035	3.51948
ethylbenzene	0.00029	2.88163
p-xylene	0.00028	2.80000
m-xylene	0.00030	3.01561
o-xylene	0.00029	2.90000
benzene	99.99790	999979.00109

Provided by DCG Partnership

Sample 2

compound	wt %	mg/kg
methylcyclohexane	0.00071	7.09402
toluene	0.00070	6.98790
1,4-dioxane	0.00084	8.42561
ethylbenzene	0.00069	6.93799
p-xylene	0.00068	6.80000
m-xylene	0.00047	4.67797
o-xylene	0.00043	4.29690
benzene	99.99548	999954.77960

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Sample 3

compound	wt %	mg/kg
methylcyclohexane	0.01353	135.31807
toluene	0.00684	68.40409
1,4-dioxane	0.00132	13.18987
ethylbenzene	0.00101	10.10923
p-xylene	0.00103	10.25150
m-xylene	0.00072	7.21935
o-xylene	0.00069	6.90000
benzene	99.97486	999748.60788

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Sample 4

compound	wt %	mg/kg
methylcyclohexane	0.01714	171.35396
toluene	0.00860	85.97316
1,4-dioxane	0.00200	19.98051
ethylbenzene	0.00160	16.04918
p-xylene	0.00178	17.77020
m-xylene	0.00190	19.00950
o-xylene	0.00086	8.58460
benzene	99.96613	999661.27889

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