

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Aug 16 13:45:26 2019
User ID: MH

Sample Parameters

Sample ID: 21
Weight: 4.1769 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.0222 cc
Analysis Temperature: 25.4 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.9778 %
Average Volume: 1.4357 cc
Volume Std. Dev.: 0.0168 cc
Average Density: 2.9094 g/cc
Density Std. Dev.: 0.0345 g/cc
Coefficient of Variation: 1.1722 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	1.4049	2.9732
2	1.4314	2.9181
3	1.4424	2.8958
4	1.4490	2.8825
5	1.4506	2.8793

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Aug 16 15:28:30 2019
User ID: MH

Sample Parameters

Sample ID: 26
Weight: 22.8567 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.0222 cc
Analysis Temperature: 25.6 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.2057 %
Average Volume: 8.5760 cc
Volume Std. Dev.: 0.0226 cc
Average Density: 2.6652 g/cc
Density Std. Dev.: 0.0070 g/cc
Coefficient of Variation: 0.2637 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	8.6190	2.6519
2	8.5771	2.6649
3	8.5672	2.6679
4	8.5563	2.6713
5	8.5603	2.6701

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Aug 16 16:38:36 2019
User ID: MH

Sample Parameters

Sample ID: 2820
Weight: 2.3295 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.1937 cc
Analysis Temperature: 25.9 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 1.7712 %
Average Volume: 0.7504 cc
Volume Std. Dev.: 0.0173 cc
Average Density: 3.1045 g/cc
Density Std. Dev.: 0.0736 g/cc
Coefficient of Variation: 2.3009 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	0.7171	3.2484
2	0.7504	3.1043
3	0.7579	3.0734
4	0.7622	3.0563
5	0.7641	3.0488

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 3

Fri Aug 16 10:14:59 2019

User ID: MH

Sample Parameters

Sample ID: 28

Weight: 79.5991 g

Analysis Parameters

Cell Size - Large

V Added - Large: 80.6188 cc

V Cell: 151.5269 cc

Analysis Temperature: 25.2 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.2719 %

Average Volume: 30.6020 cc

Volume Std. Dev.: 0.0924 cc

Average Density: 2.6011 g/cc

Density Std. Dev.: 0.0079 g/cc

Coefficient of Variation: 0.3019 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	30.7124	2.5918
2	30.6939	2.5933
3	30.5118	2.6088
4	30.4842	2.6112
5	30.6077	2.6006

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Aug 16 16:49:08 2019

User ID: MH

Sample Parameters

Sample ID: 35

Weight: 5.1173 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 60.0222 cc

Analysis Temperature: 25.6 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.6839 %

Average Volume: 1.7253 cc

Volume Std. Dev.: 0.0152 cc

Average Density: 2.9661 g/cc

Density Std. Dev.: 0.0265 g/cc

Coefficient of Variation: 0.8835 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	1.6958	3.0177
2	1.7256	2.9656
3	1.7338	2.9516
4	1.7341	2.9509
5	1.7372	2.9458

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 4

Fri Aug 16 10:31:41 2019
User ID: MH

Sample Parameters

Sample ID: 52
Weight: 20.6563 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.5872 cc
Analysis Temperature: 25.4 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.0858 %
Average Volume: 7.2575 cc
Volume Std. Dev.: 0.0073 cc
Average Density: 2.8462 g/cc
Density Std. Dev.: 0.0029 g/cc
Coefficient of Variation: 0.1010 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	7.2569	2.8464
2	7.2473	2.8502
3	7.2526	2.8481
4	7.2620	2.8444
5	7.2684	2.8419

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Aug 16 11:19:02 2019
User ID: MH

Sample Parameters

Sample ID: 526
Weight: 37.5042 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.0222 cc
Analysis Temperature: 25.0 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.1245 %
Average Volume: 13.4610 cc
Volume Std. Dev.: 0.0206 cc
Average Density: 2.7861 g/cc
Density Std. Dev.: 0.0043 g/cc
Coefficient of Variation: 0.1528 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	13.4942	2.7793
2	13.4696	2.7843
3	13.4598	2.7864
4	13.4479	2.7888
5	13.4333	2.7919

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 3

Fri Aug 16 11:29:52 2019
User ID: MH

Sample Parameters

Sample ID: 54
Weight: 12.9432 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.6593 cc
Analysis Temperature: 25.1 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.4917 %
Average Volume: 4.5063 cc
Volume Std. Dev.: 0.0278 cc
Average Density: 2.8723 g/cc
Density Std. Dev.: 0.0179 g/cc
Coefficient of Variation: 0.6178 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	4.4532	2.9065
2	4.5039	2.8738
3	4.5200	2.8636
4	4.5265	2.8594
5	4.5277	2.8587

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Jan 10 16:23:41 2020
User ID: EY

Sample Parameters

Sample ID: 5R4
Weight: 2.1452 g

Analysis Parameters

Cell Size - Small
V Added - Small: 11.9477 cc
V Cell: 20.8970 cc
Analysis Temperature: 23.7 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.0495 %
Average Volume: 0.8068 cc
Volume Std. Dev.: 0.0004 cc
Average Density: 2.6590 g/cc
Density Std. Dev.: 0.0014 g/cc
Coefficient of Variation: 0.0543 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	0.7922	2.7078
2	0.8041	2.6679
3	0.8069	2.6585
4	0.8062	2.6610
5	0.8072	2.6576

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 4

Fri Aug 16 14:14:04 2019

User ID: MH

Sample Parameters

Sample ID: 6653

Weight: 4.7634 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 59.5872 cc

Analysis Temperature: 25.0 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 1.1032 %

Average Volume: 1.6268 cc

Volume Std. Dev.: 0.0217 cc

Average Density: 2.9281 g/cc

Density Std. Dev.: 0.0397 g/cc

Coefficient of Variation: 1.3362 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	1.5859	3.0036
2	1.6228	2.9353
3	1.6405	2.9036
4	1.6417	2.9015
5	1.6430	2.8993

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 4

Fri Aug 16 15:56:26 2019
User ID: MH

Sample Parameters

Sample ID: 6654
Weight: 18.0540 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.5872 cc
Analysis Temperature: 25.8 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 1.0519 %
Average Volume: 6.2166 cc
Volume Std. Dev.: 0.0816 cc
Average Density: 2.9042 g/cc
Density Std. Dev.: 0.0387 g/cc
Coefficient of Variation: 1.3119 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	6.0627	2.9779
2	6.2070	2.9086
3	6.2536	2.8870
4	6.2725	2.8783
5	6.2872	2.8716

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Jan 10 16:33:09 2020
User ID: EY

Sample Parameters

Sample ID: 6R6
Weight: 14.1844 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.0222 cc
Analysis Temperature: 24.0 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.0834 %
Average Volume: 5.0866 cc
Volume Std. Dev.: 0.0045 cc
Average Density: 2.7886 g/cc
Density Std. Dev.: 0.0025 g/cc
Coefficient of Variation: 0.0884 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	5.0449	2.8116
2	5.0667	2.7995
3	5.0802	2.7921
4	5.0897	2.7869
5	5.0898	2.7868

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 5

Fri Aug 16 16:06:57 2019
User ID: MH

Sample Parameters

Sample ID: 6745
Weight: 15.6269 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.4443 cc
Analysis Temperature: 25.6 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 1.0713 %
Average Volume: 5.4566 cc
Volume Std. Dev.: 0.0693 cc
Average Density: 2.8638 g/cc
Density Std. Dev.: 0.0368 g/cc
Coefficient of Variation: 1.2694 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	5.3315	2.9310
2	5.4355	2.8749
3	5.4841	2.8495
4	5.5085	2.8369
5	5.5233	2.8293

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 4

Fri Aug 16 11:46:40 2019
User ID: MH

Sample Parameters

Sample ID: 73
Weight: 21.4778 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.5872 cc
Analysis Temperature: 25.4 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.2994 %
Average Volume: 7.7091 cc
Volume Std. Dev.: 0.0297 cc
Average Density: 2.7860 g/cc
Density Std. Dev.: 0.0108 g/cc
Coefficient of Variation: 0.3849 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)
1	7.6522	2.8067
2	7.7082	2.7864
3	7.7222	2.7813
4	7.7300	2.7785
5	7.7328	2.7775

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 3

Fri Jan 10 16:43:04 2020
User ID: EY

Sample Parameters

Sample ID: 7R3
Weight: 21.4432 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.6593 cc
Analysis Temperature: 24.3 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.5004 %
Average Volume: 7.7427 cc
Volume Std. Dev.: 0.0411 cc
Average Density: 2.7695 g/cc
Density Std. Dev.: 0.0146 g/cc
Coefficient of Variation: 0.5308 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	7.6433	2.8055
2	7.6818	2.7914
3	7.8008	2.7488
4	7.7126	2.7803
5	7.7146	2.7796

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 3

Fri Aug 16 16:59:30 2019

User ID: MH

Sample Parameters

Sample ID: 75

Weight: 17.7023 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 59.6593 cc

Analysis Temperature: 25.6 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.7359 %

Average Volume: 5.9641 cc

Volume Std. Dev.: 0.0520 cc

Average Density: 2.9681 g/cc

Density Std. Dev.: 0.0261 g/cc

Coefficient of Variation: 0.8726 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	5.8694	3.0160
2	5.9491	2.9756
3	6.0153	2.9429
4	5.9905	2.9551
5	5.9963	2.9522

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 4

Fri Aug 16 17:14:31 2019
User ID: MH

Sample Parameters

Sample ID: 8313
Weight: 3.1888 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.5872 cc
Analysis Temperature: 25.7 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 2.1158 %
Average Volume: 0.9654 cc
Volume Std. Dev.: 0.0245 cc
Average Density: 3.3032 g/cc
Density Std. Dev.: 0.0851 g/cc
Coefficient of Variation: 2.5333 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	0.9236	3.4524
2	0.9560	3.3355
3	0.9717	3.2818
4	0.9800	3.2540
5	0.9955	3.2031

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 4

Fri Jan 10 16:52:49 2020
User ID: EY

Sample Parameters

Sample ID: 8R3
Weight: 2.5825 g

Analysis Parameters

Cell Size - Small
V Added - Small: 11.9477 cc
V Cell: 20.3818 cc
Analysis Temperature: 24.4 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.0596 %
Average Volume: 0.8939 cc
Volume Std. Dev.: 0.0006 cc
Average Density: 2.8889 g/cc
Density Std. Dev.: 0.0018 g/cc
Coefficient of Variation: 0.0640 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	0.8917	2.8963
2	0.8945	2.8870
3	0.8947	2.8863
4	0.8937	2.8898
5	0.8934	2.8905

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 5

Fri Aug 16 10:44:11 2019
User ID: MH

Sample Parameters

Sample ID: 84
Weight: 22.2952 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.4443 cc
Analysis Temperature: 25.2 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.3629 %
Average Volume: 7.8106 cc
Volume Std. Dev.: 0.0344 cc
Average Density: 2.8545 g/cc
Density Std. Dev.: 0.0126 g/cc
Coefficient of Variation: 0.4410 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	7.7671	2.8705
2	7.7832	2.8645
3	7.8223	2.8502
4	7.8137	2.8534
5	7.8667	2.8341

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Jan 10 18:34:10 2020
User ID: EY

Sample Parameters

Sample ID: 8R4
Weight: 22.6927 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.1937 cc
Analysis Temperature: 25.5 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.2081 %
Average Volume: 8.2305 cc
Volume Std. Dev.: 0.0184 cc
Average Density: 2.7572 g/cc
Density Std. Dev.: 0.0062 g/cc
Coefficient of Variation: 0.2237 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	8.2026	2.7665
2	8.2204	2.7605
3	8.2561	2.7486
4	8.2139	2.7627
5	8.2213	2.7602

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 5

Fri Aug 16 14:25:20 2019
User ID: MH

Sample Parameters

Sample ID: 8494
Weight: 7.9560 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.4443 cc
Analysis Temperature: 24.9 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.1027 %
Average Volume: 2.7894 cc
Volume Std. Dev.: 0.0030 cc
Average Density: 2.8523 g/cc
Density Std. Dev.: 0.0031 g/cc
Coefficient of Variation: 0.1084 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	2.7933	2.8483
2	2.7926	2.8489
3	2.7866	2.8551
4	2.7860	2.8557
5	2.7883	2.8534

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 5

Fri Aug 16 17:24:24 2019
User ID: MH

Sample Parameters

Sample ID: 91
Weight: 4.7185 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 59.4443 cc
Analysis Temperature: 25.5 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.6228 %
Average Volume: 1.5942 cc
Volume Std. Dev.: 0.0127 cc
Average Density: 2.9598 g/cc
Density Std. Dev.: 0.0239 g/cc
Coefficient of Variation: 0.7983 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	1.5697	3.0060
2	1.5939	2.9603
3	1.6030	2.9435
4	1.6009	2.9474
5	1.6036	2.9425

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Jan 10 18:42:10 2020
User ID: EY

Sample Parameters

Sample ID: 9R1
Weight: 0.9010 g

Analysis Parameters

Cell Size - Small
V Added - Small: 11.9477 cc
V Cell: 20.8893 cc
Analysis Temperature: 25.5 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.1070 %
Average Volume: 0.3098 cc
Volume Std. Dev.: 0.0004 cc
Average Density: 2.9082 g/cc
Density Std. Dev.: 0.0038 g/cc
Coefficient of Variation: 0.1303 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	0.3089	2.9171
2	0.3110	2.8970
3	0.3103	2.9036
4	0.3093	2.9128
5	0.3098	2.9081

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 5

Fri Aug 16 11:57:27 2019

User ID: MH

Sample Parameters

Sample ID: 95

Weight: 8.0961 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 59.4443 cc

Analysis Temperature: 25.6 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.3489 %

Average Volume: 2.7678 cc

Volume Std. Dev.: 0.0109 cc

Average Density: 2.9251 g/cc

Density Std. Dev.: 0.0115 g/cc

Coefficient of Variation: 0.3927 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	2.7532	2.9406
2	2.7581	2.9353
3	2.7693	2.9235
4	2.7753	2.9172
5	2.7829	2.9093

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 3

Fri Jan 10 18:50:14 2020
User ID: EY

Sample Parameters

Sample ID: 9R5
Weight: 4.1032 g

Analysis Parameters

Cell Size - Small
V Added - Small: 11.9477 cc
V Cell: 20.4827 cc
Analysis Temperature: 25.5 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 3
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.0306 %
Average Volume: 1.5148 cc
Volume Std. Dev.: 0.0005 cc
Average Density: 2.7088 g/cc
Density Std. Dev.: 0.0009 g/cc
Coefficient of Variation: 0.0326 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	1.5117	2.7143
2	1.5114	2.7149
3	1.5152	2.7081
4	1.5141	2.7100
5	1.5151	2.7082

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 2

Fri Aug 16 09:58:31 2019

User ID: MH

Sample Parameters

Sample ID: 673

Weight: 10.8724 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 60.0222 cc

Analysis Temperature: 24.9 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.1796 %

Average Volume: 3.9745 cc

Volume Std. Dev.: 0.0081 cc

Average Density: 2.7356 g/cc

Density Std. Dev.: 0.0056 g/cc

Coefficient of Variation: 0.2035 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	3.9634	2.7432
2	3.9677	2.7402
3	3.9744	2.7356
4	3.9828	2.7298
5	3.9840	2.7290

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 3

Fri Aug 16 13:56:30 2019

User ID: MH

Sample Parameters

Sample ID: 663

Weight: 8.1084 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 59.6593 cc

Analysis Temperature: 25.2 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.1308 %

Average Volume: 2.8958 cc

Volume Std. Dev.: 0.0048 cc

Average Density: 2.8000 g/cc

Density Std. Dev.: 0.0047 g/cc

Coefficient of Variation: 0.1670 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	2.8896	2.8060
2	2.8970	2.7989
3	2.9042	2.7920
4	2.8952	2.8006
5	2.8932	2.8026

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Aug 16 11:09:08 2019
User ID: MH

Sample Parameters

Sample ID: 635
Weight: 3.4187 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.1937 cc
Analysis Temperature: 25.2 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.3233 %
Average Volume: 1.1842 cc
Volume Std. Dev.: 0.0050 cc
Average Density: 2.8870 g/cc
Density Std. Dev.: 0.0122 g/cc
Coefficient of Variation: 0.4232 %

Run Data		

RUN	VOLUME (cc)	DENSITY (g/cc)

1	1.1937	2.8639
2	1.1822	2.8918
3	1.1842	2.8870
4	1.1812	2.8943
5	1.1796	2.8983

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Aug 16 15:18:00 2019

User ID: MH

Sample Parameters

Sample ID: 612

Weight: 9.3813 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 60.1937 cc

Analysis Temperature: 25.5 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.6825 %

Average Volume: 3.2295 cc

Volume Std. Dev.: 0.0275 cc

Average Density: 2.9049 g/cc

Density Std. Dev.: 0.0249 g/cc

Coefficient of Variation: 0.8501 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	3.1778	2.9521
2	3.2260	2.9080
3	3.2417	2.8940
4	3.2479	2.8884
5	3.2539	2.8831

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Aug 16 09:47:54 2019
User ID: MH

Sample Parameters

Sample ID: 544
Weight: 10.6457 g

Analysis Parameters

Cell Size - Medium
V Added - Large: 80.6188 cc
V Cell: 60.1937 cc
Analysis Temperature: 24.9 C
Target Pressure: 19.0 psig
Type of gas used: Helium
Equilibration Time: Auto
Pulse Purge: 5 Pulses
Maximum Runs: 5
Number Of Runs Averaged: 5
Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.8214 %
Average Volume: 3.7236 cc
Volume Std. Dev.: 0.0363 cc
Average Density: 2.8590 g/cc
Density Std. Dev.: 0.0282 g/cc
Coefficient of Variation: 0.9755 %

----- Run Data -----		
RUN	VOLUME (cc)	DENSITY (g/cc)

1	3.6566	2.9114
2	3.7141	2.8663
3	3.7429	2.8442
4	3.7496	2.8392
5	3.7548	2.8352

QUANTACHROME CORPORATION
Pentapyc 5200e V5.04
Analysis Report Cell # 1

Fri Aug 16 13:35:01 2019

User ID: MH

Sample Parameters

Sample ID: 503

Weight: 6.6861 g

Analysis Parameters

Cell Size - Medium

V Added - Large: 80.6188 cc

V Cell: 60.1937 cc

Analysis Temperature: 25.7 C

Target Pressure: 19.0 psig

Type of gas used: Helium

Equilibration Time: Auto

Pulse Purge: 5 Pulses

Maximum Runs: 5

Number Of Runs Averaged: 5

Deviation Requested: 0.0050 %

Analysis Results

Deviation Achieved: 0.5734 %

Average Volume: 2.3981 cc

Volume Std. Dev.: 0.0172 cc

Average Density: 2.7881 g/cc

Density Std. Dev.: 0.0201 g/cc

Coefficient of Variation: 0.7159 %

Run Data

RUN	VOLUME (cc)	DENSITY (g/cc)
1	2.3658	2.8261
2	2.3959	2.7906
3	2.4059	2.7790
4	2.4085	2.7761
5	2.4142	2.7695
