

**New Mexico Department of Health, Scientific Laboratory Division**  
**Initial Demonstration of Capability: Method 8260B (SLD Method 765: MS Purgeables)**  
**Minimum Detection Limit Determination**  
**Seven Replicates at 1.0 ug/L for all analytes (Except: MEK and Xylenes at 2.0 ug/l; THF at 4.0 ug/L)**  
**Analyst: Cyndi Reynolds     Date: 11 February 2002**  
**Instrument: Aurora (O I Analytical 4560/ Carlo Ebra GC8035/ Fisons MD-800)**

8260 Analytes	Control Sample Analysis Date and MS Files (MDL Data, all quantitations are ug/L)							Statistical Results			
	1/9/2002	1/10/2002	1/11/2002	1/12/2002	1/17/2002	1/30/2001	1/31/2001	Ave. (ug/L)	Stand. Dev.	RSD	Detection Limit
	00304	00317	003A20	003B15	00912	129I	01414				
	MDL 1	MDL 2	MDL 3	MDL 4	MDL 5	MDL 6	MDL 7				
Dichlorodifluoromethane	1.05	1.17	1.15	1.07	1.02	0.58	0.60	0.95	0.251	26.4%	0.79 ug/L
Chloromethane	1.00	0.99	0.91	0.98	0.87	0.81	0.84	0.91	0.077	8.4%	0.24 ug/L
Vinylchloride	1.02	1.05	0.95	0.94	0.88	0.72	0.91	0.92	0.108	11.7%	0.34 ug/L
Bromomethane	1.19	1.23	1.18	1.20	1.27	0.88	1.16	1.16	0.128	11.0%	0.40 ug/L
Chloroethane	1.04	1.01	1.05	1.13	0.87	0.66	0.91	0.95	0.156	16.4%	0.49 ug/L
Trichlorofluoromethane	0.98	1.05	1.00	1.16	1.27	0.77	1.19	1.06	0.166	15.7%	0.52 ug/L
1,1-Dichloroethene	1.15	1.15	1.12	1.17	1.18	0.89	1.20	1.12	0.106	9.4%	0.33 ug/L
Acetone	1.59	1.63	1.93	1.63	1.86	2.34	2.49	1.92	0.361	18.8%	1.13 ug/L
Methylene Chloride	1.13	1.79	1.34	1.34	1.29	2.33	1.89	1.59	0.429	27.0%	1.35 ug/L
trans-1,2-DCE	1.20	0.96	1.13	1.09	1.14	1.04	1.17	1.10	0.082	7.4%	0.26 ug/L
Methyl-tert-Butyl Ether	1.16	1.02	1.17	1.09	1.10	1.14	1.11	1.11	0.051	4.6%	0.16 ug/L
1,1-Dichloroethane	1.02	1.09	1.10	1.16	0.99	0.97	1.11	1.06	0.070	6.6%	0.22 ug/L
cis-1,2-Dichloroethene	1.09	1.16	0.98	1.19	1.06	1.05	1.18	1.10	0.078	7.1%	0.25 ug/L
2,2-Dichloropropane	1.06	1.03	1.10	1.18	1.06	0.85	1.20	1.07	0.116	10.8%	0.36 ug/L
Bromochloromethane	0.99	1.12	1.01	1.14	0.94	0.90	1.02	1.02	0.088	8.6%	0.28 ug/L
2-Butanone	2.38	2.30	2.34	2.28	2.38	1.80	2.04	2.22	0.218	9.8%	0.68 ug/L
Tetrahydrofuran	4.04	4.20	4.40	4.64	4.08	4.32	4.00	4.24	0.230	5.4%	0.72 ug/L
Chloroform	1.08	1.08	1.13	1.12	1.09	1.32	1.18	1.14	0.086	7.5%	0.27 ug/L
1,1,1-Trichloroethane	0.98	1.03	1.08	1.12	0.95	0.87	1.11	1.02	0.092	9.0%	0.29 ug/L
1,1-Dichloropropene	1.03	1.06	1.08	1.17	0.98	0.91	1.12	1.05	0.087	8.3%	0.27 ug/L
Carbon Tetrachloride	0.99	0.98	1.00	1.02	0.88	0.84	0.99	0.96	0.068	7.2%	0.22 ug/L
Benzene	0.96	0.99	1.00	1.05	0.92	1.37	1.18	1.07	0.157	14.7%	0.49 ug/L
1,2-Dichloroethane	0.90	1.01	1.00	1.04	0.92	0.88	1.08	0.98	0.076	7.8%	0.24 ug/L
Trichloroethene	0.89	0.98	0.95	1.00	0.83	0.93	1.00	0.94	0.063	6.7%	0.20 ug/L
1,2-Dichloropropane	0.85	0.92	0.96	1.00	0.83	0.91	1.01	0.93	0.069	7.5%	0.22 ug/L
Dibromomethane	0.91	1.05	0.96	1.02	0.84	0.95	1.04	0.97	0.076	7.9%	0.24 ug/L
Bromodichloromethane	0.87	0.96	0.94	1.03	0.82	0.94	1.05	0.94	0.081	8.6%	0.26 ug/L
cis-1,3-Dichloropropene	1.18	1.09	1.10	1.11	1.05	0.95	1.08	1.08	0.070	6.5%	0.22 ug/L
Toluene	1.18	1.06	1.12	1.10	1.05	1.02	1.13	1.09	0.055	5.0%	0.17 ug/L
trans-1,3-Dichloropropene	1.13	1.06	1.06	1.04	0.99	0.90	1.05	1.03	0.072	6.9%	0.22 ug/L
1,1,2-Trichloroethane	1.20	1.15	1.16	1.17	1.10	1.00	1.14	1.13	0.065	5.8%	0.21 ug/L
1,3-Dichloropropane	1.18	1.16	1.18	1.17	1.12	1.00	1.14	1.14	0.064	5.6%	0.20 ug/L
Tetrachloroethene	1.11	1.03	1.11	1.05	1.06	0.92	1.07	1.05	0.065	6.1%	0.20 ug/L
Dibromochloromethane	1.03	0.96	0.95	0.95	0.90	0.87	0.97	0.95	0.051	5.4%	0.16 ug/L
1,2-Dibromoethane (EDB)	1.10	1.12	1.06	1.06	1.02	0.91	1.03	1.04	0.068	6.6%	0.22 ug/L
Chlorobenzene	1.06	0.99	1.08	1.05	0.98	0.97	1.09	1.03	0.050	4.9%	0.16 ug/L
Ethylbenzene	1.00	0.95	1.02	0.97	0.90	0.93	1.02	0.97	0.046	4.8%	0.15 ug/L
1,1,1,2-Tetrachloroethane	0.97	0.87	0.98	0.90	0.87	0.90	0.96	0.92	0.047	5.1%	0.15 ug/L
m/p-Xylenes	2.00	1.84	2.00	1.92	1.72	1.78	1.98	1.89	0.113	6.0%	0.36 ug/L
o-Xylene	1.01	0.93	0.99	0.96	0.87	0.93	1.01	0.96	0.051	5.4%	0.16 ug/L
Styrene	0.95	0.90	1.00	0.94	0.84	0.90	0.94	0.92	0.050	5.4%	0.16 ug/L
Bromoform	0.93	0.83	0.83	0.82	0.80	0.81	0.84	0.84	0.043	5.1%	0.14 ug/L
Isopropylbenzene	0.86	0.88	0.99	0.85	0.83	0.90	1.01	0.90	0.070	7.8%	0.22 ug/L
1,1,2,2-Tetrachloroethane	1.08	1.11	1.07	1.08	1.04	0.93	1.08	1.06	0.059	5.6%	0.19 ug/L
1,2,3-Trichloropropane	1.07	1.13	1.10	1.12	1.07	0.89	1.08	1.07	0.081	7.6%	0.25 ug/L
Bromobenzene	1.07	1.01	1.16	1.10	0.99	1.00	1.12	1.06	0.066	6.2%	0.21 ug/L
Propylbenzene	0.89	0.88	1.02	0.86	0.80	0.85	0.97	0.90	0.075	8.4%	0.24 ug/L
2-Chlorotoluene	0.93	0.91	1.03	0.94	0.86	0.88	1.00	0.94	0.061	6.6%	0.19 ug/L
1,3,5-Trimethylbenzene	0.92	1.00	1.04	0.96	0.93	0.98	1.15	1.00	0.079	7.9%	0.25 ug/L
4-Chlorotoluene	0.99	1.06	1.06	1.10	1.17	1.14	1.15	1.10	0.063	5.8%	0.20 ug/L
tert-Butylbenzene	0.85	0.97	1.06	0.91	0.88	0.97	1.14	0.97	0.103	10.6%	0.32 ug/L
1,2,4-Trimethylbenzene	1.04	0.97	1.02	0.95	0.89	0.98	1.13	1.00	0.076	7.6%	0.24 ug/L
sec-Butylbenzene	0.83	0.94	1.04	0.88	0.84	0.91	1.14	0.94	0.113	12.0%	0.36 ug/L
1,3-Dichlorobenzene	0.91	1.01	1.04	1.04	0.95	0.97	1.13	1.01	0.072	7.2%	0.23 ug/L
4-Isopropyltoluene	0.85	0.91	1.04	0.92	0.89	0.92	1.13	0.95	0.098	10.3%	0.31 ug/L
1,4-Dichlorobenzene	0.94	1.03	1.03	1.05	0.96	0.99	1.14	1.02	0.066	6.5%	0.21 ug/L
1,2-Dichlorobenzene	0.91	1.01	1.05	1.02	0.92	0.96	1.13	1.00	0.077	7.7%	0.24 ug/L
n-Butylbenzene	0.84	0.89	1.01	0.85	0.80	0.91	1.12	0.92	0.112	12.2%	0.35 ug/L
1,2-Dibromo-3-chloropropane	0.82	1.09	0.75	0.90	1.06	0.44	0.80	0.84	0.218	26.0%	0.68 ug/L
1,2,4-Trichlorobenzene	0.85	0.88	0.96	0.83	0.81	0.97	1.10	0.91	0.102	11.2%	0.32 ug/L
Hexachlorobutadiene	0.79	0.76	0.97	0.74	0.77	0.93	1.16	0.87	0.154	17.7%	0.49 ug/L
Naphthalene	0.92	1.02	0.90	0.96	0.93	0.89	1.01	0.95	0.052	5.4%	0.16 ug/L
1,2,3-Trichlorobenzene	0.81	0.89	0.98	0.87	0.85	0.94	1.05	0.91	0.083	9.0%	0.26 ug/L

Remarks: For seven replicates, student t value = 3.143, MDL = 3.143 x Std. Dev.