

**New Mexico Department of Health, Scientific Laboratory Division**  
**Initial Demonstration of Capability: Method 8260B (SLD Method 765: MS Purgeables)**  
**Minimum Detection Limit Determination**  
**Nine 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: 27 February 2003**  
**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			
	1/8/2003	1/8/2003	1/9/2003	1/9/2003	1/14/2003	1/14/2003	1/15/2003	1/16/2003	1/16/2003	Ave. (ug/L)	Stand. Dev.	RSD	Detection Limit	
	00106	00115	001A03	001A12	00503	00515	005A03	005B03	005B07					
	MDL 1	MDL 2	MDL 3	MDL 4	MDL 5	MDL 6	MDL 7	MDL 8	MDL 9					
Dichlorodifluoromethane	1.07	0.56	1.01	0.64	1.04	0.75	0.72	0.77	0.51	0.79	0.209	26.6%	0.61 ug/L	
Chloromethane	1.28	1.12	1.07	1.32	1.21	1.27	1.20	1.18	1.21	1.21	0.078	6.5%	0.23 ug/L	
Vinylchloride	1.17	0.97	0.96	1.08	1.20	0.96	0.98	0.94	0.92	1.02	0.104	10.2%	0.30 ug/L	
Bromomethane	1.13	1.00	0.90	1.26	1.25	1.15	1.13	1.03	1.02	1.10	0.119	10.9%	0.35 ug/L	
Chloroethane	1.19	0.99	0.87	1.09	1.12	1.02	1.03	0.98	0.88	1.02	0.105	10.3%	0.30 ug/L	
Trichlorofluoromethane	0.87	0.41	0.60	0.29	1.10	0.62	0.74	0.80	0.54	0.66	0.246	37.0%	0.71 ug/L	
1,1-Dichloroethene	0.97	1.04	0.85	0.83	1.05	0.92	0.96	0.99	1.00	0.96	0.077	8.1%	0.22 ug/L	
Acetone	1.35	1.55	1.01	1.55	1.84	1.47	1.73	1.52	1.43	1.49	0.235	15.7%	0.68 ug/L	
Methylene Chloride	1.16	0.90	1.07	1.36	1.71	1.54	1.65	1.42	1.25	1.34	0.271	20.2%	0.78 ug/L	
trans-1,2-Dichloroethene	1.05	0.91	0.98	0.98	1.03	0.88	0.89	1.00	0.97	0.97	0.060	6.2%	0.17 ug/L	
Methyl tert-Butyl Ether	1.13	1.03	1.03	1.21	1.20	1.14	1.32	1.10	1.09	1.14	0.093	8.2%	0.27 ug/L	
1,1-Dichloroethane	1.07	0.93	0.95	1.09	1.09	0.96	1.01	1.02	1.01	1.01	0.060	5.9%	0.17 ug/L	
cis-1,2-Dichloroethene	1.04	0.89	0.97	1.07	1.07	0.93	0.98	1.03	1.04	1.00	0.063	6.3%	0.18 ug/L	
2,2-Dichloropropane	1.12	0.89	0.93	0.89	1.20	0.85	0.96	1.02	0.90	0.97	0.118	12.1%	0.34 ug/L	
Bromochloromethane	0.89	0.88	1.03	1.05	0.94	0.88	0.86	0.88	0.88	0.92	0.071	7.7%	0.21 ug/L	
2-Butanone	2.30	2.20	2.12	2.48	2.22	2.26	2.28	2.18	2.26	2.26	0.101	4.5%	0.29 ug/L	
Tetrahydrofuran	4.64	4.80	4.08	5.16	4.80	4.40	4.40	4.36	4.40	4.56	0.322	7.1%	0.93 ug/L	
Chloroform	1.10	0.98	1.02	1.14	1.18	1.03	1.06	1.09	1.07	1.07	0.062	5.7%	0.18 ug/L	
1,1,1-Trichloroethane	1.05	0.87	0.94	0.97	1.14	0.95	0.97	0.94	0.92	0.97	0.079	8.1%	0.23 ug/L	
1,1-Dichloropropene	1.12	0.96	1.02	1.15	1.11	0.99	0.99	1.05	1.05	1.05	0.066	6.3%	0.19 ug/L	
Carbon Tetrachloride	1.01	0.69	0.84	0.80	1.07	1.10	0.83	0.99	0.92	0.92	0.137	14.9%	0.40 ug/L	
Benzene	1.12	1.02	1.02	1.17	1.16	1.02	1.00	1.03	1.04	1.06	0.066	6.2%	0.19 ug/L	
1,2-Dichloroethane	1.01	0.97	0.94	1.04	1.06	1.00	0.98	0.98	0.99	1.00	0.036	3.7%	0.11 ug/L	
Trichloroethene	1.05	0.97	1.02	1.19	1.09	0.99	0.99	1.03	1.05	1.04	0.067	6.4%	0.19 ug/L	
1,2-Dichloropropane	1.07	0.98	0.96	1.12	1.12	1.06	0.98	1.01	1.01	1.03	0.060	5.8%	0.18 ug/L	
Dibromomethane	1.05	1.06	0.92	1.14	1.08	1.06	1.05	1.08	1.09	1.06	0.059	5.6%	0.17 ug/L	
Bromodichloromethane	1.00	0.87	0.86	1.01	1.07	0.94	0.89	0.90	0.88	0.94	0.074	7.9%	0.22 ug/L	
cis-1,3-Dichloropropene	1.09	0.94	1.04	1.09	1.14	0.95	1.07	1.04	1.00	1.04	0.067	6.4%	0.19 ug/L	
Toluene	1.18	1.10	1.14	1.40	1.13	1.13	1.15	1.17	1.16	1.17	0.088	7.5%	0.26 ug/L	
trans-1,3-Dichloropropene	1.02	0.92	0.96	1.03	1.06	0.87	0.97	0.97	0.92	0.97	0.061	6.2%	0.18 ug/L	
1,1,2-Trichloroethane	1.08	0.94	0.94	1.10	1.09	1.13	1.01	0.97	1.03	1.03	0.072	6.9%	0.21 ug/L	
1,3-Dichloropropane	1.08	0.99	1.01	1.15	1.08	0.99	1.05	1.02	1.04	1.05	0.052	4.9%	0.15 ug/L	
Tetrachloroethene	1.20	1.06	1.05	1.13	1.17	1.28	1.11	1.07	1.11	1.13	0.075	6.6%	0.22 ug/L	
Dibromochloromethane	0.94	0.83	0.87	0.99	1.19	0.90	0.95	0.93	0.88	0.94	0.104	11.1%	0.30 ug/L	
1,2-Dibromoethane (EDB)	1.07	0.99	1.01	1.27	1.04	1.03	1.13	1.02	1.09	1.07	0.086	8.0%	0.25 ug/L	
Chlorobenzene	1.14	0.98	1.05	1.20	1.10	1.04	1.10	1.10	1.11	1.09	0.063	5.7%	0.18 ug/L	
Ethylbenzene	1.15	1.03	1.11	1.26	1.08	1.03	1.07	1.09	1.10	1.10	0.070	6.4%	0.20 ug/L	
1,1,1,2-Tetrachloroethane	1.07	0.85	0.91	1.05	1.01	0.90	0.97	0.95	0.92	0.96	0.073	7.6%	0.21 ug/L	
m/p-Xylenes	2.28	2.00	2.22	2.54	2.12	1.98	2.04	2.14	2.14	2.16	0.172	8.0%	0.50 ug/L	
o-Xylene	1.13	0.99	1.08	1.27	1.06	1.01	1.06	1.07	1.07	1.08	0.081	7.5%	0.23 ug/L	
Styrene	1.07	0.94	1.03	1.17	1.00	0.92	0.87	1.01	1.03	1.00	0.088	8.8%	0.26 ug/L	
Bromoform	0.85	0.64	0.63	0.74	1.06	0.78	0.82	0.91	0.77	0.80	0.133	16.7%	0.39 ug/L	
Isopropylbenzene	1.17	0.97	1.09	1.22	1.02	0.99	1.02	1.10	1.13	1.08	0.085	7.9%	0.25 ug/L	
1,1,2,2-Tetrachloroethane	1.06	0.97	0.99	1.18	1.12	1.03	1.08	1.03	1.04	1.06	0.065	6.1%	0.19 ug/L	
1,2,3-Trichloropropane	1.13	0.98	0.99	1.17	1.10	0.99	1.02	1.04	1.01	1.05	0.069	6.6%	0.20 ug/L	
Bromobenzene	1.06	0.95	0.95	1.12	1.08	0.96	0.95	0.98	1.00	1.01	0.065	6.4%	0.19 ug/L	
Propylbenzene	1.09	0.93	1.01	1.16	0.98	0.89	0.94	1.07	1.08	1.02	0.089	8.8%	0.26 ug/L	
2-Chlorotoluene	1.03	0.92	0.97	1.09	1.00	0.94	0.98	1.01	1.01	0.99	0.050	5.1%	0.15 ug/L	
1,3,5-Trimethylbenzene	1.20	0.98	1.03	1.21	1.02	1.04	0.90	1.08	1.09	1.06	0.099	9.3%	0.29 ug/L	
4-Chlorotoluene	1.09	0.91	0.91	1.09	1.11	1.00	0.91	1.02	1.00	1.00	0.081	8.1%	0.24 ug/L	
tert-Butylbenzene	1.20	0.93	0.98	1.14	0.91	1.01	0.91	1.02	1.02	1.01	0.100	9.9%	0.29 ug/L	
1,2,4-Trimethylbenzene	1.14	0.98	1.08	1.33	1.03	1.02	0.99	1.06	1.06	1.08	0.107	9.9%	0.31 ug/L	
sec-Butylbenzene	1.15	0.95	1.05	1.21	0.92	1.00	0.90	1.11	1.10	1.04	0.108	10.3%	0.31 ug/L	
1,3-Dichlorobenzene	1.15	0.96	0.99	1.17	1.11	1.08	1.01	1.05	1.06	1.06	0.071	6.7%	0.21 ug/L	
4-Isopropyltoluene	1.13	0.93	0.99	1.16	0.90	0.93	1.06	1.11	1.07	1.03	0.096	9.3%	0.28 ug/L	
1,4-Dichlorobenzene	1.17	0.99	1.03	1.17	1.11	1.05	1.03	1.07	1.07	1.08	0.062	5.8%	0.18 ug/L	
1,2-Dichlorobenzene	1.15	0.97	0.97	1.16	1.11	1.08	1.01	1.06	1.07	1.06	0.070	6.6%	0.20 ug/L	
n-Butylbenzene	1.14	0.95	1.09	1.23	0.88	0.97	0.82	1.08	1.11	1.03	0.133	12.9%	0.38 ug/L	
1,2-Dibromo-3-chloropropane	1.02	0.91	0.71	1.07	1.06	0.76	0.96	0.93	0.90	0.92	0.124	13.5%	0.36 ug/L	
Nitrobenzene	20.0	15.0	12.0	18.4	14.8	15.2	5.0	16.4	17.0	14.87	4.351	29.3%	12.6 ug/L	
1,2,4-Trichlorobenzene	1.19	0.87	1.01	1.15	1.05	0.98	0.88	1.07	1.09	1.03	0.110	10.6%	0.32 ug/L	
Hexachlorobutadiene	1.30	0.90	1.06	1.24	0.86	0.87	0.45	1.13	1.19	1.00	0.263	26.3%	0.76 ug/L	
Naphthalene	1.16	0.99	1.03	1.29	1.07	0.98	0.90	1.04	1.05	1.06	0.112	10.6%	0.33 ug/L	
1,2,3-Trichlorobenzene	1.16	0.93	1.02	1.19	0.99	0.99	0.85	1.08	1.07	1.03	0.107	10.4%	0.31 ug/L	
Total Xylenes	3.41	2.99	3.30	3.81	3.18	2.99	3.10	3.21	3.21	3.24	0.252	7.8%	0.73 ug/L	
Total Trihalomethanes	3.89	3.32	3.38	3.88	4.50	3.65	3.72	3.83	3.60	3.75	0.347	9.2%	1.00 ug/L	

Remarks: For nine replicates, student t value = 2.896, MDL = 2.896 x Std. Dev.