APPENDIX E

DRYER FIELD DATA

Shop Towels
No Strip

CEM CALIBRATION DATA
EPA Method 25A

Firm:	G&K	Analyzer:	California Analytical
Location:	Manchester, NH	Span Value (S):	8936
Operator	W Deveau	Analyzer Range:	30000
Sample Location:	Dryer Stack		
Date:	27-Nov-12		

TOTAL HYDROCARBONS

PRE-TEST Calibration Error Check:

	Cylinder ID	Cylinder Gas Conc. (Ca)	Analyzer Response (C)	Slope (m)	Predicted Response (pr)	Calibration Error (<5%) (ce)
Zero, C_O		0.0	-3.14			
C_{low} (25-35% span)	xc0033311b	2922.0	2920.2	1.0008	2924.4	-0.1%
C_{mid} (45-55% span)	cc349917	4940.0	4938.1	1.0008	4944.0	-0.1%
C_{high} (80-90% span)	cc351430	8936.0	8940.1	1.0008	8943.2	0.0%

Calibration Drift Check:

Run No:		1	2	3	4	AVG
Time						
Initial Zero	C_{OI}	-3.1	13.3	14.6	62.6	
Initial Span	C_{MI}	2920.2	2921.7	2941.7	2925.0	
Final Zero	C_{OF}	13.3	14.6	62.6	0.4	
Final Span	C_{MF}	2921.7	2941.7	2925.0	2923.7	
Calibration Drift (< 3%)	CD_O	-0.2%	0.0%	-0.5%	0.7%	
Calibration Drift (< 3%)	CD_M	0.0%	-0.2%	0.2%	0.0%	
THC Conc. (ppm, wet)	C_{THCavg}					

Nomenclature

C_{high}	Span gas analyzer response
C_O	Zero gas analyzer response
C_a	Cylinder gas value
C_{OI}	Initial calibration zero response
C_{OF}	Final calibration zero response
C_{MI}	Initial calibration upscale response
C_{MF}	Final calibration upscale response
CDo	Zero calibration drift
CDm	Upscale calibration drift
m	Slope
pr	Predicted response
ce	Calibration error
C	Analyzer response
S	Span
C_{NMHC}	Non-methane hydrocarbon concentration
C_{THC}	Total hydrocarbon concentration
C_{CH4}	Methane concentration

Calculations

$$m = (C_{high} - C_O) / C_a$$

$$pr = m \times C_a$$

$$ce = (C - pr) / C_a \times 100$$

$$CD_O = (C_{OI} - C_{OF}) / S$$

$$C_{NMHC} = C_{THC} - C_{CH4}$$

$$ER = C_{avg} \quad MW \quad 2.5962e\text{-}9 \quad Q \quad 60$$

where,

MW = molecular weight of methane, 16.04
2.5962e-9 = conversion from ppm to pounds per standard cubic feet.
60 = conversion from minutes to hour
Q = flow in units of standard cubic feet per minute

h:\stack\connecticut\projects\2012\g&k - manchester, nh\compliance testing\field data\nov 27 - shop towels - no strip\[g&k - dryer emissions - shop towels no strip - 11-27-2012.xls]calibration summary

Cylinder Gas	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero ID			
Zero Expiration			
Low ID	XC03311B		
Low Expiration	12/27/14		
Low Concentration	2922		
Mid ID	CC349917	CC408666	CC408666
Mid Expiration	7/7/2014	7/5/2014	7/5/2014
Mid Concentration	4940	9.93	10.02
High ID	CC351430	CC349923	CC349923
High Expiration	10/21/2014	11/9/2014	11/9/2014
High Concentration	8936	21.97	17.69

Calibration Error	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero Response	-3.14	0.03	0.01
Zero Error (%)	-0.04	0.14	0.07
Low Response	2920.19		
Low Error (%)	-0.06		
Mid Response	4938.13	9.93	10.01
Mid Error (%)	-0.04	-0.02	-0.05
High Response	8940.12	21.98	17.7
High Error (%)	0.05	0.05	0.06

Initial Bias	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero Response	0	0.02	0.02
Zero Bias (%)	0	-0.05	0.06
Span Concentration	2922	9.93	10.02
Span Response	0	9.95	10.02
Span Bias (%)	0	0.1	0.06

Stop Tests
No Strip

Log Averages	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
27Nov2012 - 07:31:00	10.29	21.14	0.16
27Nov2012 - 07:32:00	12.6	21.28	0.17
27Nov2012 - 07:33:00	10.7	21.21	0.17
27Nov2012 - 07:34:00	11.17	21.29	0.17
27Nov2012 - 07:35:00	0.31	21.32	0.11
27Nov2012 - 07:36:00	9.02	21.23	0.16
27Nov2012 - 07:37:00	-13.94	21.48	0.04
27Nov2012 - 07:38:00	-28.31	21.47	-0.05
27Nov2012 - 07:39:00	-9	21.36	0.06
27Nov2012 - 07:40:00	9.04	21.28	0.16
27Nov2012 - 07:41:00	11.37	21.29	0.17
27Nov2012 - 07:42:00	-35.57	21.69	-0.09
27Nov2012 - 07:43:00	-12.22	21.93	-0.01
27Nov2012 - 07:44:00	4.16	21.73	-0.1
27Nov2012 - 07:45:00	20.18	21.62	0.16
27Nov2012 - 07:46:00	-13.55	21.86	-0.03
27Nov2012 - 07:47:00	21.9	21.66	0.17
27Nov2012 - 07:48:00	-10.74	21.61	-0.02
27Nov2012 - 07:49:00	21.47	21.59	0.17
27Nov2012 - 07:50:00	18.68	21.65	0.15
27Nov2012 - 07:51:00	3.9	21.4	0.07
27Nov2012 - 07:52:00	-21.21	21.5	-0.08
27Nov2012 - 07:53:00	0.87	21.8	0.05
27Nov2012 - 07:54:00	2.53	21.59	0.06
27Nov2012 - 07:55:00	12.3	21.41	0.11
27Nov2012 - 07:56:00	-0.79	21.28	0.04
27Nov2012 - 07:57:00	23.03	21.19	0.17
27Nov2012 - 07:58:00	0.42	21.36	0.05
27Nov2012 - 07:59:00	3.49	21.33	0.06
27Nov2012 - 08:00:00	-0.07	21.29	0.04
27Nov2012 - 08:01:00	14.08	21.33	0.12
27Nov2012 - 08:02:00	-6.07	21.31	0.01
27Nov2012 - 08:03:00	0.32	21.29	0.04
27Nov2012 - 08:04:00	5.45	21.31	0.07
27Nov2012 - 08:05:00	22.49	21.18	0.16
27Nov2012 - 08:06:00	6.23	21.13	0.07
27Nov2012 - 08:07:00	16.12	21.23	0.13
27Nov2012 - 08:08:00	18.09	21.26	0.14
27Nov2012 - 08:09:00	-22.5	21.39	-0.09
27Nov2012 - 08:10:00	19.03	21.51	0.15
27Nov2012 - 08:11:00	-1.14	21.51	0.04
27Nov2012 - 08:12:00	5.58	21.58	0.08
27Nov2012 - 08:13:00	8.38	21.68	0.09
27Nov2012 - 08:14:00	0.13	21.78	0.05
27Nov2012 - 08:15:00	8.28	21.6	0.09
27Nov2012 - 08:16:00	11.86	21.59	0.11
27Nov2012 - 08:17:00	1.99	21.65	0.06
27Nov2012 - 08:18:00	17.52	21.48	0.15
27Nov2012 - 08:19:00	-22.75	21.72	-0.08
27Nov2012 - 08:20:00	-9.39	21.7	0
27Nov2012 - 08:21:00	-14.76	21.56	-0.03
27Nov2012 - 08:22:00	17.85	21.35	0.15
27Nov2012 - 08:23:00	-18.4	21.51	-0.05
27Nov2012 - 08:24:00	17.93	21.39	0.15
27Nov2012 - 08:25:00	-1.53	21.57	0.04
27Nov2012 - 08:26:00	21.39	21.54	0.18
27Nov2012 - 08:27:00	7.42	21.35	0.1
27Nov2012 - 08:28:00	1.97	21.3	0.07
27Nov2012 - 08:29:00	0.19	21.28	0.05
27Nov2012 - 08:30:00	-33.15	21.35	-0.13
27Nov2012 - 08:31:00	-6.55	21.41	0.02
27Nov2012 - 08:32:00	-15.72	21.39	-0.04
27Nov2012 - 08:33:00	18.54	21.26	0.16
27Nov2012 - 08:34:00	-19.92	21.69	-0.05
27Nov2012 - 08:35:00	-27.56	21.86	-0.11
27Nov2012 - 08:36:00	-18.77	21.7	-0.05
27Nov2012 - 08:37:00	15.06	21.77	0.14
27Nov2012 - 08:38:00	4.7	21.41	0.08
27Nov2012 - 08:39:00	4.25	21.46	0.08
27Nov2012 - 08:40:00	3.86	21.76	0.08
27Nov2012 - 08:41:00	12.27	21.86	0.13
27Nov2012 - 08:42:00	-0.5	21.93	0.06
27Nov2012 - 08:43:00	1.99	21.88	0.07

Dryer Exhaust Summaries

Time	Ave THC Conc	MW	(SCFM)	lb/hr
1049 - 1124	466.3	12	5478	4.76
1134 - 1213	492.0	12	5467	5.02
1220 - 1255	824.1	12	5622	8.64
1305 - 1339	773.9	12	4938	7.13
1350 - 1432	399.7	12	5533	4.12
1447 - 1523	432.6	12	5591	4.51
1530 - 1605	541.0	12	5409	5.46
1615 - 1650	626.2	12	5484	6.40
1730 - 1805	502.7	12	5035	4.72
1812 - 1850	573.7	12	5366	5.74
1905 - 1940	774.9	12	5507	7.96
1951 - 2027	782.5	12	5409	7.89
Daily Average	593.8	12	5403	5.98

Dryer Off

Daily Average	26.5	12	100	0.005

27Nov2012 - 08:44:00	-2.7	21.49	0.04	
27Nov2012 - 08:45:00	2.61	21.35	0.05	
27Nov2012 - 08:46:00	7.61	21.3	0.09	
27Nov2012 - 08:47:00	410.82	18.27	3.39	
27Nov2012 - 08:48:00	13.26	10.04	10.01	ZERO
27Nov2012 - 08:49:00	1475.21	17.48	3.03	
27Nov2012 - 08:50:00	2921.69	21.23	-0.02	SPAN
27Nov2012 - 08:51:00	390.75	21	0.15	
27Nov2012 - 08:52:00	17.7	20.96	0.16	
27Nov2012 - 08:53:00	9.14	21.09	0.1	
27Nov2012 - 08:54:00	4.45	21.14	0.07	
27Nov2012 - 08:55:00	7.79	21.07	0.09	
27Nov2012 - 08:56:00	0.93	21.16	0.05	
27Nov2012 - 08:57:00	23.4	21.09	0.18	
27Nov2012 - 08:58:00	19.97	20.96	0.16	
27Nov2012 - 08:59:00	22.56	20.98	0.17	
27Nov2012 - 09:00:00	2.26	21.1	0.06	
27Nov2012 - 09:01:00	-0.03	21.11	0.04	
27Nov2012 - 09:02:00	2.06	21.11	0.06	
27Nov2012 - 09:03:00	5.35	21.08	0.08	
27Nov2012 - 09:04:00	4.96	21.12	0.08	
27Nov2012 - 09:05:00	19.3	21.16	0.16	
27Nov2012 - 09:06:00	-22.48	21.86	-0.07	
27Nov2012 - 09:07:00	8.83	21.62	0.1	
27Nov2012 - 09:08:00	0.17	21.24	0.06	
27Nov2012 - 09:09:00	0.44	21.13	0.06	
27Nov2012 - 09:10:00	15.16	21.1	0.14	
27Nov2012 - 09:11:00	16.6	21.11	0.15	
27Nov2012 - 09:12:00	19.73	21.17	0.16	
27Nov2012 - 09:13:00	-4.27	21.25	0.03	
27Nov2012 - 09:14:00	-3.94	21.48	0.03	
27Nov2012 - 09:15:00	13.89	21.53	0.13	
27Nov2012 - 09:16:00	0.23	21.17	0.06	
27Nov2012 - 09:17:00	3.78	21.16	0.08	
27Nov2012 - 09:18:00	-14.82	21.38	-0.02	
27Nov2012 - 09:19:00	-2.22	21.61	0.04	
27Nov2012 - 09:20:00	-4.91	21.48	0.02	
27Nov2012 - 09:21:00	10.98	21.32	0.11	
27Nov2012 - 09:22:00	11.6	21.33	0.11	
27Nov2012 - 09:23:00	-4.58	21.38	0.03	
27Nov2012 - 09:24:00	4.96	21.27	0.08	
27Nov2012 - 09:25:00	-0.63	21.3	0.05	
27Nov2012 - 09:26:00	8.26	21.24	0.1	
27Nov2012 - 09:27:00	4.51	21.26	0.08	
27Nov2012 - 09:28:00	-5.6	21.23	0.02	
27Nov2012 - 09:29:00	7.26	21.17	0.09	
27Nov2012 - 09:30:00	-13.82	21.23	-0.03	
27Nov2012 - 09:31:00	-35.87	21.23	-0.13	
27Nov2012 - 09:32:00	-8.57	21.23	0.01	
27Nov2012 - 09:33:00	5.7	21.12	0.09	
27Nov2012 - 09:34:00	-3.49	21.17	0.04	
27Nov2012 - 09:35:00	-1.16	21.14	0.05	
27Nov2012 - 09:36:00	4.51	21.12	0.08	
27Nov2012 - 09:37:00	18.85	21.17	0.16	
27Nov2012 - 09:38:00	14.49	21.09	0.13	
27Nov2012 - 09:39:00	3.2	21.1	0.07	
27Nov2012 - 09:40:00	3	21.08	0.08	
27Nov2012 - 09:41:00	8.59	21.05	0.1	
27Nov2012 - 09:42:00	2.32	21.11	0.07	
27Nov2012 - 09:43:00	-23.03	21.16	-0.07	
27Nov2012 - 09:44:00	9.18	21.2	0.1	
27Nov2012 - 09:45:00	-0.91	21.12	0.05	
27Nov2012 - 09:46:00	21.59	21.07	0.17	
27Nov2012 - 09:47:00	-19.14	21.24	-0.06	
27Nov2012 - 09:48:00	4.45	21.25	0.09	
27Nov2012 - 09:49:00	20.69	21.12	0.17	
27Nov2012 - 09:50:00	17.64	21.2	0.16	
27Nov2012 - 09:51:00	3.98	21.6	0.08	
27Nov2012 - 09:52:00	6.34	21.44	0.09	
27Nov2012 - 09:53:00	-5.17	21.51	0.02	
27Nov2012 - 09:54:00	20.69	21.47	0.16	
27Nov2012 - 09:55:00	-10.89	21.42	-0.03	
27Nov2012 - 09:56:00	4.06	21.38	0.15	
27Nov2012 - 09:57:00	-29.65	21.42	-0.01	
27Nov2012 - 09:58:00	-13.06	21.32	0.08	
27Nov2012 - 09:59:00	-2.1	21.18	0.14	

27Nov2012 - 10:00:00	4.06	21.24	0.17	
27Nov2012 - 10:01:00	2.79	21.28	0.17	
27Nov2012 - 10:02:00	-19.47	21.34	0.04	
27Nov2012 - 10:03:00	-18.87	21.38	0.05	
27Nov2012 - 10:04:00	-16.99	21.37	0.05	
27Nov2012 - 10:05:00	-1.06	21.3	0.15	
27Nov2012 - 10:06:00	-9.52	21.31	0.09	
27Nov2012 - 10:07:00	3.43	21.2	0.16	
27Nov2012 - 10:08:00	-16.19	21.34	0.06	
27Nov2012 - 10:09:00	-10.23	21.3	0.09	
27Nov2012 - 10:10:00	-22.97	21.33	0.02	
27Nov2012 - 10:11:00	-23.77	21.3	0.02	
27Nov2012 - 10:12:00	-37.65	21.36	-0.05	
27Nov2012 - 10:13:00	-4.05	21.37	0.13	
27Nov2012 - 10:14:00	-41.48	21.34	-0.07	
27Nov2012 - 10:15:00	-43.1	21.33	-0.09	
27Nov2012 - 10:16:00	0.42	21.41	0.05	
27Nov2012 - 10:17:00	25.2	21.36	0.12	
27Nov2012 - 10:18:00	20.24	21.32	0.08	
27Nov2012 - 10:19:00	12.4	21.3	0.04	
27Nov2012 - 10:20:00	36.95	21.19	0.17	
27Nov2012 - 10:21:00	38.34	21.2	0.18	
27Nov2012 - 10:22:00	5.25	21.31	-0.01	
27Nov2012 - 10:23:00	12.73	21.31	0.03	
27Nov2012 - 10:24:00	26.96	21.26	0.12	
27Nov2012 - 10:25:00	1.46	21.34	-0.04	
27Nov2012 - 10:26:00	35.78	21.33	0.16	
27Nov2012 - 10:27:00	40.13	21.17	0.18	
27Nov2012 - 10:28:00	36.38	21.11	0.17	
27Nov2012 - 10:29:00	-4.11	21.31	-0.07	
27Nov2012 - 10:30:00	31.61	21.14	0.13	
27Nov2012 - 10:31:00	33.9	21.06	0.15	
27Nov2012 - 10:32:00	33.94	21.16	0.15	
27Nov2012 - 10:33:00	31.14	21.22	0.14	
27Nov2012 - 10:34:00	8.2	21.28	0.01	
27Nov2012 - 10:35:00	11.82	21.21	0.03	
27Nov2012 - 10:36:00	35.38	21.11	0.16	
27Nov2012 - 10:37:00	12.7	21.21	0.03	
27Nov2012 - 10:38:00	25.12	21.22	0.11	
27Nov2012 - 10:39:00	35.4	21.06	0.16	
27Nov2012 - 10:40:00	4.25	21.26	-0.02	
27Nov2012 - 10:41:00	32.24	21.09	0.15	
27Nov2012 - 10:42:00	10.96	21.19	0.03	
27Nov2012 - 10:43:00	14.55	21.26	0.05	ZERO
27Nov2012 - 10:44:00	20.96	21.25	0.08	
27Nov2012 - 10:45:00	32.28	21.18	0.14	
27Nov2012 - 10:46:00	1802.59	21.2	0.07	
27Nov2012 - 10:47:00	2941.73	21.27	0.02	SPAN
27Nov2012 - 10:48:00	1411.95	18.13	3.08	

START DRYER RUN 1A

27Nov2012 - 10:49:00	46.5	17.64	3.23
27Nov2012 - 10:50:00	456.68	21.07	0.21
27Nov2012 - 10:51:00	942.06	21.19	0.02
27Nov2012 - 10:52:00	827.47	20.67	0.43
27Nov2012 - 10:53:00	874.08	19.86	0.79
27Nov2012 - 10:54:00	839.97	19.86	0.76
27Nov2012 - 10:55:00	794.48	19.89	0.76
27Nov2012 - 10:56:00	751.43	19.89	0.76
27Nov2012 - 10:57:00	719.47	19.8	0.78
27Nov2012 - 10:58:00	664.31	19.86	0.76
27Nov2012 - 10:59:00	628.31	19.9	0.72
27Nov2012 - 11:00:00	588.46	19.89	0.68
27Nov2012 - 11:01:00	564.83	19.86	0.78
27Nov2012 - 11:02:00	536.97	19.88	0.74
27Nov2012 - 11:03:00	506.22	19.93	0.74
27Nov2012 - 11:04:00	481.01	20.09	0.72
27Nov2012 - 11:05:00	464.87	19.98	0.7
27Nov2012 - 11:06:00	453.09	20.02	0.68
27Nov2012 - 11:07:00	439.15	19.94	0.63
27Nov2012 - 11:08:00	453.15	19.87	0.63
27Nov2012 - 11:09:00	440.07	19.95	0.59
27Nov2012 - 11:10:00	455.26	19.94	0.62
27Nov2012 - 11:11:00	472.1	20.09	0.68
27Nov2012 - 11:12:00	456.25	20.24	0.5

27Nov2012 - 11:13:00	471.24	20.22	0.61
27Nov2012 - 11:14:00	477.3	20.39	0.51
27Nov2012 - 11:15:00	475.58	20.33	0.44
27Nov2012 - 11:16:00	456.49	20.48	0.36
27Nov2012 - 11:17:00	314.39	21.08	0.14
27Nov2012 - 11:18:00	211.05	20.9	0.17
27Nov2012 - 11:19:00	149.3	20.95	0.09
27Nov2012 - 11:20:00	94.17	21.07	-0.09
27Nov2012 - 11:21:00	102.18	20.98	0.08
27Nov2012 - 11:22:00	100.6	20.95	0.15
27Nov2012 - 11:23:00	41.83	21.04	-0.13
27Nov2012 - 11:24:00	36.09	21.05	-0.11
END DRYER RUN 1A			
AVERAGES	**466.3**	**20.2**	**0.6**
27Nov2012 - 11:25:00	79.26	21.01	0.17
27Nov2012 - 11:26:00	84.26	20.9	0.18
27Nov2012 - 11:27:00	91.3	20.98	0.2
27Nov2012 - 11:28:00	89.89	20.98	0.17
27Nov2012 - 11:29:00	93.86	21.28	0.13
27Nov2012 - 11:30:00	80.2	21.58	0.07
27Nov2012 - 11:31:00	53.3	21.65	-0.09
27Nov2012 - 11:32:00	101.13	21.56	0.19
27Nov2012 - 11:33:00	100.19	21.2	0.17
START DRYER RUN 1B			
27Nov2012 - 11:34:00	175.72	21.24	0.11
27Nov2012 - 11:35:00	570.7	21.13	0.15
27Nov2012 - 11:36:00	916.07	20.86	0.31
27Nov2012 - 11:37:00	933.06	20.17	0.73
27Nov2012 - 11:38:00	956.14	20.14	0.84
27Nov2012 - 11:39:00	900.32	19.96	0.85
27Nov2012 - 11:40:00	859.09	19.96	0.83
27Nov2012 - 11:41:00	819	20.02	0.78
27Nov2012 - 11:42:00	796.22	20.11	0.85
27Nov2012 - 11:43:00	748.2	20.03	0.79
27Nov2012 - 11:44:00	702.98	20.17	0.69
27Nov2012 - 11:45:00	657.82	20.19	0.79
27Nov2012 - 11:46:00	594.77	20.36	0.61
27Nov2012 - 11:47:00	604.56	20.32	0.78
27Nov2012 - 11:48:00	573.43	20.34	0.67
27Nov2012 - 11:49:00	574.33	20.28	0.65
27Nov2012 - 11:50:00	560.49	20.4	0.61
27Nov2012 - 11:51:00	564.76	20.35	0.6
27Nov2012 - 11:52:00	558.85	20.37	0.61
27Nov2012 - 11:53:00	570.66	20.32	0.61
27Nov2012 - 11:54:00	589.55	20.4	0.58
27Nov2012 - 11:55:00	609.82	20.45	0.66
27Nov2012 - 11:56:00	599.81	20.32	0.62
27Nov2012 - 11:57:00	610.58	20.29	0.6
27Nov2012 - 11:58:00	588.26	20.47	0.42
27Nov2012 - 11:59:00	614.59	20.52	0.51
27Nov2012 - 12:00:00	609.35	20.53	0.51
27Nov2012 - 12:01:00	406.09	21.16	0.02
27Nov2012 - 12:02:00	262.06	21.12	0.07
27Nov2012 - 12:03:00	199.17	21.07	0.08
27Nov2012 - 12:04:00	167.36	21	0.13
27Nov2012 - 12:05:00	129.07	21.03	0.06
27Nov2012 - 12:06:00	111.72	21	0.06
27Nov2012 - 12:07:00	107.75	21.03	0.11
27Nov2012 - 12:08:00	61.32	21.08	-0.1
27Nov2012 - 12:09:00	82.42	20.99	0.05
27Nov2012 - 12:10:00	83.69	20.99	0.09
27Nov2012 - 12:11:00	67.86	21.08	0.01
27Nov2012 - 12:12:00	70.95	21.22	0.09
27Nov2012 - 12:13:00	72.83	21.55	0.16
END DRYER RUN 1B			
AVERAGES	**492.0**	**20.6**	**0.4**
27Nov2012 - 12:14:00	34.02	21.67	-0.06
27Nov2012 - 12:15:00	60.5	21.58	0.05
27Nov2012 - 12:16:00	78.53	21.12	0.11
27Nov2012 - 12:17:00	73.16	21.45	0.1

27Nov2012 - 12:18:00	64.44	21.49	0.1
27Nov2012 - 12:19:00	56.2	21.47	0.09
START DRYER RUN 2A			
27Nov2012 - 12:20:00	59.3	21.52	0.1
27Nov2012 - 12:21:00	111.15	21.53	0.11
27Nov2012 - 12:22:00	356.68	21.59	0.11
27Nov2012 - 12:23:00	1253.5	21.64	-0.01
27Nov2012 - 12:24:00	1414.78	20.65	0.68
27Nov2012 - 12:25:00	1676.87	20.23	0.81
27Nov2012 - 12:26:00	1687.44	20.32	0.71
27Nov2012 - 12:27:00	1606.85	20.19	0.78
27Nov2012 - 12:28:00	1553.46	20.09	0.74
27Nov2012 - 12:29:00	1431.12	19.92	0.82
27Nov2012 - 12:30:00	1388.36	19.93	0.87
27Nov2012 - 12:31:00	1308.14	19.87	0.86
27Nov2012 - 12:32:00	1220.06	20	0.73
27Nov2012 - 12:33:00	1125	19.91	0.82
27Nov2012 - 12:34:00	1050.76	20.06	0.63
27Nov2012 - 12:35:00	993.29	19.96	0.79
27Nov2012 - 12:36:00	921.15	19.93	0.74
27Nov2012 - 12:37:00	883.46	20.18	0.63
27Nov2012 - 12:38:00	838.12	20.18	0.49
27Nov2012 - 12:39:00	831.73	20.15	0.69
27Nov2012 - 12:40:00	808.45	20.17	0.61
27Nov2012 - 12:41:00	831.82	20.27	0.65
27Nov2012 - 12:42:00	804.19	20.1	0.68
27Nov2012 - 12:43:00	788.75	20.25	0.57
27Nov2012 - 12:44:00	793.44	20.29	0.62
27Nov2012 - 12:45:00	755.2	20.38	0.48
27Nov2012 - 12:46:00	781.93	20.35	0.5
27Nov2012 - 12:47:00	773.61	20.44	0.5
27Nov2012 - 12:48:00	446.87	21.15	0.04
27Nov2012 - 12:49:00	291.06	21.12	0.09
27Nov2012 - 12:50:00	210.68	21.22	0.06
27Nov2012 - 12:51:00	171.13	21.34	0.07
27Nov2012 - 12:52:00	142.54	21.32	0.07
27Nov2012 - 12:53:00	133.45	21.07	0.16
27Nov2012 - 12:54:00	122.31	21.18	0.16
27Nov2012 - 12:55:00	99.46	21.27	0.1
END DRYER RUN 2A			
AVERAGES	**824.1**	**20.5**	**0.5**
27Nov2012 - 12:56:00	68.27	21.21	-0.02
27Nov2012 - 12:57:00	74.8	21.26	0.09
27Nov2012 - 12:58:00	71.36	21.08	0.1
27Nov2012 - 12:59:00	67.41	21.1	0.11
27Nov2012 - 13:00:00	59.17	21.07	0.07
27Nov2012 - 13:01:00	63.53	21.05	0.11
27Nov2012 - 13:02:00	82.74	20.98	0.18
27Nov2012 - 13:03:00	64.03	21.07	0.09
27Nov2012 - 13:04:00	61.96	21.19	0.1
START DRYER RUN 2B			
27Nov2012 - 13:05:00	334.41	21.16	-0.05
27Nov2012 - 13:06:00	1177.81	20.95	0.21
27Nov2012 - 13:07:00	1358.67	19.98	0.79
27Nov2012 - 13:08:00	1460.04	19.84	0.83
27Nov2012 - 13:09:00	1382.22	19.92	0.67
27Nov2012 - 13:10:00	1296.24	19.68	0.84
27Nov2012 - 13:11:00	1256.88	19.79	0.77
27Nov2012 - 13:12:00	1176.79	19.8	0.79
27Nov2012 - 13:13:00	1115.8	19.6	0.88
27Nov2012 - 13:14:00	1044.68	19.81	0.75
27Nov2012 - 13:15:00	1012.89	19.77	0.86
27Nov2012 - 13:16:00	930.75	19.92	0.65
27Nov2012 - 13:17:00	879.14	19.85	0.79
27Nov2012 - 13:18:00	840.27	20	0.68
27Nov2012 - 13:19:00	782.83	20.06	0.57
27Nov2012 - 13:20:00	781.89	20.01	0.67
27Nov2012 - 13:21:00	778.9	20.02	0.62
27Nov2012 - 13:22:00	756.47	19.98	0.7
27Nov2012 - 13:23:00	756.84	20.04	0.62

27Nov2012 - 13:24:00	758.17	20.11	0.65	
27Nov2012 - 13:25:00	769.05	20.17	0.55	
27Nov2012 - 13:26:00	764.58	20.12	0.6	
27Nov2012 - 13:27:00	791.72	20.17	0.58	
27Nov2012 - 13:28:00	781.54	20.26	0.51	
27Nov2012 - 13:29:00	780.17	20.26	0.55	
27Nov2012 - 13:30:00	789.14	20.4	0.45	
27Nov2012 - 13:31:00	750.86	20.3	0.5	
27Nov2012 - 13:32:00	491.39	21.01	0.08	
27Nov2012 - 13:33:00	345.78	21.04	0.14	
27Nov2012 - 13:34:00	262.55	20.9	0.17	
27Nov2012 - 13:35:00	170.37	21.09	-0.05	
27Nov2012 - 13:36:00	126.41	21.07	-0.1	
27Nov2012 - 13:37:00	147.89	20.91	0.16	
27Nov2012 - 13:38:00	126.06	20.83	0.15	
27Nov2012 - 13:39:00	106.27	20.96	0.09	
END DRYER RUN 2B				
AVERAGES	**773.9**	**20.3**	**0.5**	
27Nov2012 - 13:40:00	98.68	20.97	0.1	
27Nov2012 - 13:41:00	72.61	21.08	0.02	
27Nov2012 - 13:42:00	62.12	21.1	-0.02	
27Nov2012 - 13:43:00	87.23	20.98	0.13	
27Nov2012 - 13:44:00	81.47	21.07	0.1	
27Nov2012 - 13:45:00	62.55	21.08	0	ZERO
27Nov2012 - 13:46:00	84.49	20.94	0.14	
27Nov2012 - 13:47:00	1887.63	20.38	0.52	
27Nov2012 - 13:48:00	2925.02	21.09	0.02	SPAN
27Nov2012 - 13:49:00	2387.44	21.07	0.07	
START DRYER RUN 3A				
27Nov2012 - 13:50:00	50.47	10.6	9.8	
27Nov2012 - 13:51:00	125.18	15.01	5.34	
27Nov2012 - 13:52:00	411.13	20.81	0.36	
27Nov2012 - 13:53:00	523.64	19.76	0.86	
27Nov2012 - 13:54:00	665.73	19.7	0.94	
27Nov2012 - 13:55:00	669.35	19.62	0.89	
27Nov2012 - 13:56:00	690.65	19.61	0.96	
27Nov2012 - 13:57:00	667.73	19.63	0.85	
27Nov2012 - 13:58:00	654.34	19.66	0.87	
27Nov2012 - 13:59:00	659.4	19.58	0.93	
27Nov2012 - 14:00:00	646.35	19.59	0.9	
27Nov2012 - 14:01:00	621.19	19.78	0.86	
27Nov2012 - 14:02:00	585.45	19.79	0.89	
27Nov2012 - 14:03:00	576.19	19.92	0.78	
27Nov2012 - 14:04:00	577.67	19.95	0.73	
27Nov2012 - 14:05:00	563.52	19.97	0.7	
27Nov2012 - 14:06:00	543.3	19.97	0.65	
27Nov2012 - 14:07:00	531.81	20.09	0.62	
27Nov2012 - 14:08:00	545.23	20.1	0.6	
27Nov2012 - 14:09:00	564.83	20.02	0.68	
27Nov2012 - 14:10:00	566.22	20.12	0.61	
27Nov2012 - 14:11:00	577.36	20.26	0.49	
27Nov2012 - 14:12:00	604.86	20.12	0.66	
27Nov2012 - 14:13:00	590.16	20.23	0.55	
27Nov2012 - 14:14:00	595.36	20.31	0.49	
27Nov2012 - 14:15:00	623.36	20.28	0.51	
27Nov2012 - 14:16:00	576.75	20.46	0.41	
27Nov2012 - 14:17:00	396.36	21.03	0.1	
27Nov2012 - 14:18:00	278.03	20.95	0.12	
27Nov2012 - 14:19:00	213.98	21.1	0.08	
27Nov2012 - 14:20:00	187.54	20.9	0.16	
27Nov2012 - 14:21:00	149.1	20.89	0.13	
27Nov2012 - 14:22:00	115.92	21.04	0.06	
27Nov2012 - 14:23:00	110.12	20.87	0.11	
27Nov2012 - 14:24:00	96.1	20.88	0.09	
27Nov2012 - 14:25:00	93.82	20.96	0.12	
27Nov2012 - 14:26:00	80.74	21.04	0.09	
27Nov2012 - 14:27:00	82.11	21.08	0.09	
27Nov2012 - 14:28:00	57.8	21.17	-0.03	
27Nov2012 - 14:29:00	85.67	20.96	0.16	
27Nov2012 - 14:30:00	67.16	21.12	0.08	
27Nov2012 - 14:31:00	79.88	20.94	0.17	
27Nov2012 - 14:32:00	84.89	21.01	0.2	

END DRYER RUN 3A			
AVERAGES	**399.7**	**20.0**	**0.8**
27Nov2012 - 14:33:00	63.9	21.08	0.1
27Nov2012 - 14:34:00	69.33	20.92	0.16
27Nov2012 - 14:35:00	73.28	20.99	0.15
27Nov2012 - 14:36:00	73.71	21.06	0.15
27Nov2012 - 14:37:00	64.11	21.03	0.12
27Nov2012 - 14:38:00	67.16	21.05	0.1
27Nov2012 - 14:39:00	48.36	21.18	0
27Nov2012 - 14:40:00	69.47	21.15	0.16
27Nov2012 - 14:41:00	58.27	21.11	0.12
27Nov2012 - 14:42:00	48.05	21.15	0.08
27Nov2012 - 14:43:00	30.62	21.15	-0.02
27Nov2012 - 14:44:00	51.49	21.13	0.1
27Nov2012 - 14:45:00	60.47	21.09	0.13
START DRYER RUN 3B			
27Nov2012 - 14:46:00	82.11	21.23	-0.1
27Nov2012 - 14:47:00	327.71	21.11	0.15
27Nov2012 - 14:48:00	340.87	20.63	0.4
27Nov2012 - 14:49:00	445.99	20.09	0.59
27Nov2012 - 14:50:00	541.19	20.03	0.67
27Nov2012 - 14:51:00	610.5	19.89	0.78
27Nov2012 - 14:52:00	632.61	19.89	0.78
27Nov2012 - 14:53:00	642.5	19.9	0.78
27Nov2012 - 14:54:00	644.8	19.82	0.79
27Nov2012 - 14:55:00	635.13	19.79	0.8
27Nov2012 - 14:56:00	623.73	19.82	0.79
27Nov2012 - 14:57:00	590.08	19.93	0.73
27Nov2012 - 14:58:00	545.84	19.96	0.7
27Nov2012 - 14:59:00	536.85	19.99	0.69
27Nov2012 - 15:00:00	520.53	20.02	0.68
27Nov2012 - 15:01:00	497.29	20.11	0.58
27Nov2012 - 15:02:00	525.57	19.99	0.75
27Nov2012 - 15:03:00	479.94	20.16	0.53
27Nov2012 - 15:04:00	501.28	20.09	0.64
27Nov2012 - 15:05:00	493.85	20.18	0.53
27Nov2012 - 15:06:00	542.5	20.22	0.65
27Nov2012 - 15:07:00	533.27	20.31	0.5
27Nov2012 - 15:08:00	536.85	20.22	0.55
27Nov2012 - 15:09:00	554.55	20.24	0.6
27Nov2012 - 15:10:00	565.5	20.35	0.57
27Nov2012 - 15:11:00	553.77	20.32	0.49
27Nov2012 - 15:12:00	557.9	20.41	0.45
27Nov2012 - 15:13:00	535.32	20.49	0.38
27Nov2012 - 15:14:00	452.09	20.84	0.24
27Nov2012 - 15:15:00	304.29	21.04	0.08
27Nov2012 - 15:16:00	242.48	21.08	0.08
27Nov2012 - 15:17:00	205.84	20.89	0.18
27Nov2012 - 15:18:00	164.15	20.97	0.14
27Nov2012 - 15:19:00	103.71	21.1	-0.07
27Nov2012 - 15:20:00	127.94	20.96	0.19
27Nov2012 - 15:21:00	99.89	20.99	0.11
27Nov2012 - 15:22:00	82.78	21.05	0.06
27Nov2012 - 15:23:00	59.11	21.06	-0.05
END DRYER RUN 3B			
AVERAGES	**432.6**	**20.4**	**0.5**
27Nov2012 - 15:24:00	61.47	21.1	0.01
27Nov2012 - 15:25:00	37.28	21.09	-0.09
27Nov2012 - 15:26:00	62.2	21.03	0.08
27Nov2012 - 15:27:00	69.21	21.01	0.1
27Nov2012 - 15:28:00	39.59	21.1	-0.05
27Nov2012 - 15:29:00	56	21.03	0.07
START DRYER RUN 4A			
27Nov2012 - 15:30:00	72.53	20.93	0.18
27Nov2012 - 15:31:00	120.96	21.09	0.03
27Nov2012 - 15:32:00	711.89	20.89	0.2
27Nov2012 - 15:33:00	710.91	20.03	0.69
27Nov2012 - 15:34:00	840.11	19.89	0.73

27Nov2012 - 15:35:00	929.05	19.81	0.74
27Nov2012 - 15:36:00	914.8	19.81	0.78
27Nov2012 - 15:37:00	913.02	19.84	0.65
27Nov2012 - 15:38:00	893.81	19.77	0.73
27Nov2012 - 15:39:00	868.41	19.8	0.75
27Nov2012 - 15:40:00	800.17	19.86	0.72
27Nov2012 - 15:41:00	744.39	19.91	0.68
27Nov2012 - 15:42:00	674.47	20.01	0.57
27Nov2012 - 15:43:00	669.84	19.94	0.7
27Nov2012 - 15:44:00	623.64	20.11	0.57
27Nov2012 - 15:45:00	615.7	20.06	0.69
27Nov2012 - 15:46:00	615.16	19.96	0.73
27Nov2012 - 15:47:00	611.11	19.97	0.72
27Nov2012 - 15:48:00	614.04	20.04	0.65
27Nov2012 - 15:49:00	589.81	20.16	0.55
27Nov2012 - 15:50:00	606.99	20.11	0.6
27Nov2012 - 15:51:00	606.52	20.25	0.54
27Nov2012 - 15:52:00	626.04	20.23	0.49
27Nov2012 - 15:53:00	643.34	20.13	0.63
27Nov2012 - 15:54:00	655.34	20.22	0.56
27Nov2012 - 15:55:00	630.83	20.38	0.43
27Nov2012 - 15:56:00	630.93	20.36	0.5
27Nov2012 - 15:57:00	390.59	21.08	-0.02
27Nov2012 - 15:58:00	278.96	20.97	0.13
27Nov2012 - 15:59:00	198.55	21	0.07
27Nov2012 - 16:00:00	153.05	21.02	0.06
27Nov2012 - 16:01:00	127.78	21.02	0.06
27Nov2012 - 16:02:00	117.13	21.08	0.08
27Nov2012 - 16:03:00	101.69	21.03	0.07
27Nov2012 - 16:04:00	92.29	21.01	0.09
27Nov2012 - 16:05:00	82.68	21.06	0.09
END DRYER RUN 4A			
AVERAGES	**541.0**	**20.4**	**0.5**
27Nov2012 - 16:06:00	66.65	21.03	0.04
27Nov2012 - 16:07:00	60.42	21.03	0.06
27Nov2012 - 16:08:00	54.34	21.06	0.06
27Nov2012 - 16:09:00	50.24	21.1	0.06
27Nov2012 - 16:10:00	67.88	20.91	0.16
27Nov2012 - 16:11:00	90.05	20.87	0.18
27Nov2012 - 16:12:00	56.71	21.04	0.06
27Nov2012 - 16:13:00	57.31	21.1	0.1
START DRYER RUN 4B			
27Nov2012 - 16:14:00	46.39	21.03	0.06
27Nov2012 - 16:15:00	133.88	21.01	0.1
27Nov2012 - 16:16:00	653.77	21.09	0.04
27Nov2012 - 16:17:00	807.71	20.17	0.65
27Nov2012 - 16:18:00	1019.08	19.86	0.78
27Nov2012 - 16:19:00	1075.66	19.91	0.62
27Nov2012 - 16:20:00	1066.73	19.85	0.58
27Nov2012 - 16:21:00	1077.61	19.81	0.67
27Nov2012 - 16:22:00	1047.44	19.76	0.81
27Nov2012 - 16:23:00	1010.31	19.76	0.78
27Nov2012 - 16:24:00	952.89	19.77	0.83
27Nov2012 - 16:25:00	831.24	19.98	0.54
27Nov2012 - 16:26:00	775.82	19.96	0.51
27Nov2012 - 16:27:00	794.34	19.93	0.78
27Nov2012 - 16:28:00	748.12	19.99	0.65
27Nov2012 - 16:29:00	731.04	19.95	0.71
27Nov2012 - 16:30:00	699.54	20.08	0.63
27Nov2012 - 16:31:00	685.59	20.16	0.61
27Nov2012 - 16:32:00	670.95	20.07	0.66
27Nov2012 - 16:33:00	686.15	19.94	0.71
27Nov2012 - 16:34:00	684.04	20.17	0.64
27Nov2012 - 16:35:00	689.12	20.19	0.57
27Nov2012 - 16:36:00	683.55	20.19	0.57
27Nov2012 - 16:37:00	723.34	20.21	0.54
27Nov2012 - 16:38:00	703.49	20.26	0.52
27Nov2012 - 16:39:00	683.67	20.33	0.33
27Nov2012 - 16:40:00	742.14	20.32	0.54
27Nov2012 - 16:41:00	720.04	20.37	0.27
27Nov2012 - 16:42:00	565.09	20.88	0.17
27Nov2012 - 16:43:00	368.45	20.95	0.09

27Nov2012 - 16:44:00	265.11	21.02	0.05
27Nov2012 - 16:45:00	208.47	21.04	0.07
27Nov2012 - 16:46:00	172.1	20.99	0.09
27Nov2012 - 16:47:00	134.21	21	0.02
27Nov2012 - 16:48:00	113.63	21.02	0.02
27Nov2012 - 16:49:00	105.15	21.01	0.07
27Nov2012 - 16:50:00	94.01	20.98	0.08
END DRYER RUN 4B			
AVERAGES	**626.2**	**20.4**	**0.4**
27Nov2012 - 16:51:00	73.24	21.02	0.03
27Nov2012 - 16:52:00	53.99	21.1	-0.02
27Nov2012 - 16:53:00	55.04	21.01	0.02
27Nov2012 - 16:54:00	51.76	21.01	0.03
27Nov2012 - 16:55:00	70.29	20.94	0.15
27Nov2012 - 16:56:00	44.86	21.05	0.02
27Nov2012 - 16:57:00	28.64	21.03	-0.05
27Nov2012 - 16:58:00	38.41	21.03	0.02
27Nov2012 - 16:59:00	26.36	21.09	-0.04
27Nov2012 - 17:00:00	48.73	20.99	0.09
27Nov2012 - 17:01:00	36.99	21.03	0.03
27Nov2012 - 17:02:00	56.67	20.98	0.15
27Nov2012 - 17:03:00	45.04	20.84	0.07
27Nov2012 - 17:04:00	62.59	20.92	0.14
27Nov2012 - 17:05:00	39.61	21	0.04
27Nov2012 - 17:06:00	40.93	21.01	0.07
27Nov2012 - 17:07:00	39.51	21.25	0.05
27Nov2012 - 17:08:00	46.17	21.41	0.09
27Nov2012 - 17:09:00	24.77	21.09	-0.02
27Nov2012 - 17:10:00	35.15	21	0.05
27Nov2012 - 17:11:00	37.79	20.97	0.08
27Nov2012 - 17:12:00	30.85	20.98	0.04
27Nov2012 - 17:13:00	24.05	21.01	0.02
27Nov2012 - 17:14:00	55.24	20.83	0.19
27Nov2012 - 17:15:00	28.9	20.97	0.04
27Nov2012 - 17:16:00	23.15	21.01	0.03
27Nov2012 - 17:17:00	19.83	21.04	0.01
27Nov2012 - 17:18:00	37.57	20.97	0.12
27Nov2012 - 17:19:00	28.25	20.96	0.06
27Nov2012 - 17:20:00	28.27	20.98	0.07
27Nov2012 - 17:21:00	1.13	21.02	-0.09
27Nov2012 - 17:22:00	23.56	21	0.04
27Nov2012 - 17:23:00	28.35	20.98	0.07
27Nov2012 - 17:24:00	25.5	20.99	0.05
27Nov2012 - 17:25:00	20.96	21.06	0.02
27Nov2012 - 17:26:00	24.66	21.02	0.04
27Nov2012 - 17:27:00	39.39	20.95	0.12
27Nov2012 - 17:28:00	30.24	21.01	0.06
27Nov2012 - 17:29:00	93.52	21	0.04
START DRYER RUN 5A			
27Nov2012 - 17:30:00	97.9	21	0.04
27Nov2012 - 17:31:00	509.7	20.85	0.19
27Nov2012 - 17:32:00	640.7	20.13	0.56
27Nov2012 - 17:33:00	843.96	19.84	0.7
27Nov2012 - 17:34:00	882.71	19.8	0.73
27Nov2012 - 17:35:00	886.39	19.75	0.77
27Nov2012 - 17:36:00	873.35	19.73	0.78
27Nov2012 - 17:37:00	831.06	19.73	0.69
27Nov2012 - 17:38:00	804.84	19.71	0.81
27Nov2012 - 17:39:00	766.94	19.7	0.73
27Nov2012 - 17:40:00	750.7	19.74	0.79
27Nov2012 - 17:41:00	675.7	19.86	0.7
27Nov2012 - 17:42:00	641.38	19.87	0.75
27Nov2012 - 17:43:00	619.24	19.93	0.8
27Nov2012 - 17:44:00	558.5	19.94	0.62
27Nov2012 - 17:45:00	532.84	20	0.62
27Nov2012 - 17:46:00	537.24	19.95	0.68
27Nov2012 - 17:47:00	528.05	20	0.56
27Nov2012 - 17:48:00	544.55	19.97	0.64
27Nov2012 - 17:49:00	529.23	20.07	0.54
27Nov2012 - 17:50:00	520.12	20.1	0.58
27Nov2012 - 17:51:00	523.56	20.13	0.58
27Nov2012 - 17:52:00	507.96	20.2	0.43

27Nov2012 - 17:53:00	497.55	20.22	0.4
27Nov2012 - 17:54:00	527.9	20.23	0.49
27Nov2012 - 17:55:00	531.22	20.34	0.39
27Nov2012 - 17:56:00	526.78	20.42	0.31
27Nov2012 - 17:57:00	360.18	20.98	0.06
27Nov2012 - 17:58:00	239.41	20.95	0.08
27Nov2012 - 17:59:00	198.14	20.82	0.19
27Nov2012 - 18:00:00	141.44	20.98	0.05
27Nov2012 - 18:01:00	135.33	20.86	0.18
27Nov2012 - 18:02:00	118.71	20.93	0.18
27Nov2012 - 18:03:00	64.82	21.05	-0.04
27Nov2012 - 18:04:00	92.82	20.93	0.17
27Nov2012 - 18:05:00	56.29	21	0.01
END DRYER RUN 5A			
AVERAGES	**502.7**	**20.3**	**0.5**
27Nov2012 - 18:06:00	61.98	20.97	0.08
27Nov2012 - 18:07:00	57.41	20.97	0.08
27Nov2012 - 18:08:00	58.86	20.97	0.09
27Nov2012 - 18:09:00	66.26	20.98	0.08
27Nov2012 - 18:10:00	27.63	21.04	-0.06
27Nov2012 - 18:11:00	116.02	20.92	0.19
START DRYER RUN 5B			
27Nov2012 - 18:12:00	262.98	20.9	0.12
27Nov2012 - 18:13:00	426.63	21.01	0.06
27Nov2012 - 18:14:00	704.25	20.78	0.2
27Nov2012 - 18:15:00	973.98	19.76	0.82
27Nov2012 - 18:16:00	1078.84	19.84	0.66
27Nov2012 - 18:17:00	1087.99	19.79	0.69
27Nov2012 - 18:18:00	1082.5	19.67	0.85
27Nov2012 - 18:19:00	1002.08	19.74	0.66
27Nov2012 - 18:20:00	961.98	19.71	0.74
27Nov2012 - 18:21:00	921.9	19.52	0.91
27Nov2012 - 18:22:00	886.7	19.63	0.92
27Nov2012 - 18:23:00	841.32	19.71	0.81
27Nov2012 - 18:24:00	783.52	19.56	0.89
27Nov2012 - 18:25:00	690.94	19.82	0.69
27Nov2012 - 18:26:00	675.99	19.79	0.77
27Nov2012 - 18:27:00	628.84	19.85	0.7
27Nov2012 - 18:28:00	602.98	19.93	0.65
27Nov2012 - 18:29:00	611.83	19.89	0.79
27Nov2012 - 18:30:00	544.27	20.01	0.52
27Nov2012 - 18:31:00	543.61	20.01	0.52
27Nov2012 - 18:32:00	565.18	19.98	0.64
27Nov2012 - 18:33:00	558.99	20.06	0.64
27Nov2012 - 18:34:00	559.46	20.09	0.52
27Nov2012 - 18:35:00	558.52	20.16	0.63
27Nov2012 - 18:36:00	555.26	20.16	0.5
27Nov2012 - 18:37:00	555.86	20.29	0.5
27Nov2012 - 18:38:00	570.17	20.23	0.58
27Nov2012 - 18:39:00	523.52	20.44	0.33
27Nov2012 - 18:40:00	524.71	20.29	0.52
27Nov2012 - 18:41:00	477.71	20.51	0.36
27Nov2012 - 18:42:00	455.36	20.51	0.39
27Nov2012 - 18:43:00	335.27	20.92	0.19
27Nov2012 - 18:44:00	233.37	20.94	0.06
27Nov2012 - 18:45:00	182.05	20.97	0.09
27Nov2012 - 18:46:00	134.6	20.95	0.04
27Nov2012 - 18:47:00	77.09	21	-0.13
27Nov2012 - 18:48:00	83.71	21.04	0.02
27Nov2012 - 18:49:00	81.8	21.04	0.09
27Nov2012 - 18:50:00	29.13	20.99	-0.14
END DRYER RUN 5B			
AVERAGES	573.7	20.2	0.5
27Nov2012 - 18:51:00	50.94	21.06	0.03
27Nov2012 - 18:52:00	73.24	20.96	0.19
27Nov2012 - 18:53:00	40.39	21.07	0.04
27Nov2012 - 18:54:00	53.85	21.02	0.13
27Nov2012 - 18:55:00	58.31	20.91	0.16
27Nov2012 - 18:56:00	27.41	20.99	0.02
27Nov2012 - 18:57:00	39.23	20.98	0.1

27Nov2012 - 18:58:00	38.34	20.95	0.09
27Nov2012 - 18:59:00	24.42	21.03	0.03
27Nov2012 - 19:00:00	42.85	20.94	0.13
27Nov2012 - 19:01:00	-0.12	21.01	-0.11
27Nov2012 - 19:02:00	51.29	20.94	0.17
27Nov2012 - 19:03:00	9.02	21.03	-0.08
27Nov2012 - 19:04:00	72.85	20.98	0.08
START DRYER RUN 6A			
27Nov2012 - 19:05:00	90.3	20.96	0.12
27Nov2012 - 19:06:00	386.29	21.07	0.03
27Nov2012 - 19:07:00	800.42	20.69	0.07
27Nov2012 - 19:08:00	1064.4	19.93	0.58
27Nov2012 - 19:09:00	1239.91	19.84	0.56
27Nov2012 - 19:10:00	1321.58	19.79	0.66
27Nov2012 - 19:11:00	1318.4	19.77	0.72
27Nov2012 - 19:12:00	1311.69	19.76	0.75
27Nov2012 - 19:13:00	1256.76	19.74	0.76
27Nov2012 - 19:14:00	1202.9	19.71	0.74
27Nov2012 - 19:15:00	1200.89	19.71	0.82
27Nov2012 - 19:16:00	1153.11	19.67	0.8
27Nov2012 - 19:17:00	1084.28	19.67	0.83
27Nov2012 - 19:18:00	969.27	19.92	0.72
27Nov2012 - 19:19:00	893.46	19.9	0.69
27Nov2012 - 19:20:00	921.08	19.91	0.8
27Nov2012 - 19:21:00	863.44	19.9	0.77
27Nov2012 - 19:22:00	810.56	19.97	0.64
27Nov2012 - 19:23:00	778.1	20	0.66
27Nov2012 - 19:24:00	761.45	20.05	0.53
27Nov2012 - 19:25:00	779.37	20	0.7
27Nov2012 - 19:26:00	771.57	20.16	0.69
27Nov2012 - 19:27:00	780.11	20.1	0.7
27Nov2012 - 19:28:00	757.11	20.13	0.55
27Nov2012 - 19:29:00	747.69	20.17	0.41
27Nov2012 - 19:30:00	748.57	20.24	0.5
27Nov2012 - 19:31:00	762.66	20.27	0.5
27Nov2012 - 19:32:00	718.42	20.36	0.42
27Nov2012 - 19:33:00	687.15	20.4	0.41
27Nov2012 - 19:34:00	593.21	20.69	0.25
27Nov2012 - 19:35:00	355.36	20.99	-0.04
27Nov2012 - 19:36:00	224.85	21	-0.14
27Nov2012 - 19:37:00	186.9	20.96	0.04
27Nov2012 - 19:38:00	136.67	21.04	0
27Nov2012 - 19:39:00	92.49	21	-0.12
27Nov2012 - 19:40:00	125.03	20.9	0.19
END DRYER RUN 6A			
AVERAGES	**774.9**	**20.2**	**0.5**
27Nov2012 - 19:41:00	79.28	21.06	0.04
27Nov2012 - 19:42:00	51.14	21.02	-0.03
27Nov2012 - 19:43:00	63.84	20.99	0.11
27Nov2012 - 19:44:00	49.59	21.01	0.07
27Nov2012 - 19:45:00	47.36	20.99	0.08
27Nov2012 - 19:46:00	39.88	20.96	0.06
27Nov2012 - 19:47:00	57.58	20.92	0.18
27Nov2012 - 19:48:00	-4.07	20.99	-0.15
27Nov2012 - 19:49:00	1.52	21	-0.13
27Nov2012 - 19:50:00	60.26	21.04	0.11
START DRYER RUN 6B			
27Nov2012 - 19:51:00	369.39	20.87	0.19
27Nov2012 - 19:52:00	740.85	20.65	0.35
27Nov2012 - 19:53:00	1025.67	19.88	0.47
27Nov2012 - 19:54:00	1269.05	19.91	0.69
27Nov2012 - 19:55:00	1321.33	19.78	0.85
27Nov2012 - 19:56:00	1295.22	19.85	0.82
27Nov2012 - 19:57:00	1251.05	19.63	0.87
27Nov2012 - 19:58:00	1214.92	19.72	0.89
27Nov2012 - 19:59:00	1160.73	19.75	0.73
27Nov2012 - 20:00:00	1123.3	19.74	0.71
27Nov2012 - 20:01:00	1033.76	19.95	0.78
27Nov2012 - 20:02:00	945.66	19.89	0.71
27Nov2012 - 20:03:00	944.53	19.84	0.68

27Nov2012 - 20:04:00	873.88	19.99	0.71	
27Nov2012 - 20:05:00	802.45	19.96	0.43	
27Nov2012 - 20:06:00	840.85	20.04	0.75	
27Nov2012 - 20:07:00	783.1	20.09	0.56	
27Nov2012 - 20:08:00	759.46	20.1	0.6	
27Nov2012 - 20:09:00	750.45	20.1	0.51	
27Nov2012 - 20:10:00	766.06	20.05	0.49	
27Nov2012 - 20:11:00	793.7	19.98	0.7	
27Nov2012 - 20:12:00	772.16	20.18	0.59	
27Nov2012 - 20:13:00	773.96	20.18	0.55	
27Nov2012 - 20:14:00	753.19	20.26	0.47	
27Nov2012 - 20:15:00	752.99	20.24	0.44	
27Nov2012 - 20:16:00	722.29	20.36	0.38	
27Nov2012 - 20:17:00	727.13	20.33	0.46	
27Nov2012 - 20:18:00	755.53	20.42	0.46	
27Nov2012 - 20:19:00	665.77	20.55	0.35	
27Nov2012 - 20:20:00	654.2	20.46	0.38	
27Nov2012 - 20:21:00	509.72	20.94	0.18	
27Nov2012 - 20:22:00	325.63	20.98	0.08	
27Nov2012 - 20:23:00	253.44	21.02	0.19	
27Nov2012 - 20:24:00	192.98	20.97	0.16	
27Nov2012 - 20:25:00	143.59	21.03	0.12	
27Nov2012 - 20:26:00	102.38	20.97	0.06	
END DRYER RUN 6B				
AVERAGES	**782.5**	**20.2**	**0.5**	
DAILY AVERAGE	**593.8**			
27Nov2012 - 20:27:00	81.64	21	0.04	
27Nov2012 - 20:28:00	86.35	21.03	0.15	
27Nov2012 - 20:29:00	12.73	20.96	-0.19	
27Nov2012 - 20:30:00	13.28	20.98	-0.13	
27Nov2012 - 20:31:00	302.4	19.25	1.94	
27Nov2012 - 20:32:00	28	9.98	9.89	
27Nov2012 - 20:33:00	26.84	10.12	10.13	
27Nov2012 - 20:34:00	0.38	10.04	10.11	ZERO
27Nov2012 - 20:35:00	143.87	11.94	8.17	
27Nov2012 - 20:36:00	2316.34	20.97	0.26	
27Nov2012 - 20:37:00	2922.61	21.06	-0.09	
27Nov2012 - 20:38:00	2923.3	21.1	0.13	SPAN
27Nov2012 - 20:39:00	1880.37	18.94	0.16	
27Nov2012 - 20:40:00	-35.22	0.05	-0.04	
27Nov2012 - 20:41:00	-18.92	0.04	0.07	
Dryer Off Emissions	**26.5**			

Dryer Stack-Shop Towels No Strip
G&K Services
Methods 1-4 Summary

Run No.	DSNS-1A	DSNS - 1B	DSNS-2A	DSNS-2B	DSNS-3A	DSNS-3B	DSNS-4A	DSNS-4B	DSNS-5A	DSNS-5B	DSNS-6A	DSNS-6B	
Date:	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	27-Nov-12	
Start Time	10:49	11:34	12:20	13:05	13:50	14:47	15:30	16:15	17:30	18:12	19:05	19:51	
Stop Time	11:24	12:13	12:55	13:39	14:32	15:23	16:05	16:50	18:05	18:50	19:40	20:27	AVERAGES
Barometric Pressure, (inches of mercury)	29.99	29.99	29.99	29.99	29.99	29.99	29.99	29.99	29.99	29.99	29.99	29.99	29.99
Net Sampling Time, (minutes)	35.0	31.0	35.0	34.0	42.0	36.0	35.0	35.0	35.0	32.0	35.0	36.0	35.08
Volume Metered, (cubic feet)	30.773	24.050	25.109	26.330	31.273	26.735	23.306	25.648	26.424	28.695	25.951	27.358	26.80
Average Dry Gas Meter Temperature, (°F)	71	72	73	73	73	73	73	73	73	73	73	73	72.58
Average ΔH, (inches of water)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Average ΔH, (inches of mercury)	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.15
Dry Gas Meter Calibration Factor (Y) Meterbox # 80876	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.98
Dry Gas Meter ΔH @	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.10
Volume of Gas Collected, (dscf)	30.199	23.567	24.576	25.759	30.588	26.131	22.801	25.092	25.845	28.079	25.382	26.765	26.23
Total Water Collected, (mL)	28.0	22.0	26.0	30.0	31.0	22.0	21.0	26.0	29.0	29.0	27.0	26.0	26.42
Volume of Water Vapor, (scf)	1.320	1.037	1.226	1.415	1.462	1.037	0.990	1.226	1.367	1.367	1.273	1.226	1.25
Moisture, (percent)	4.2	4.2	4.8	5.2	4.6	3.8	4.2	4.7	5.0	4.6	4.8	4.4	4.53
Dry Mole Fraction	0.9581	0.9578	0.9525	0.9479	0.9544	0.9618	0.9584	0.9534	0.9498	0.9536	0.9522	0.9562	0.95
CO_2 Concentration, (percent dry)	0.6	0.4	0.5	0.5	0.8	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.52
O_2 Concentration, (percent dry)	20.2	20.6	20.5	20.3	20.0	20.4	20.4	20.4	20.3	20.2	20.2	20.2	20.31
CO and N_2, (percent dry)	79.2	79.0	79.0	79.2	79.2	79.1	79.1	79.2	79.2	79.3	79.3	79.3	79.18
Dry Molecular Weight, (lb/lb mole)	28.90	28.89	28.90	28.89	28.93	28.90	28.90	28.88	28.89	28.89	28.89	28.89	28.90
Wet Molecular Weight, (lb/lb mole)	28.45	28.43	28.38	28.33	28.43	28.48	28.44	28.37	28.34	28.38	28.37	28.41	28.40
Excess Air at Stack, (percent)	2849.9	8046.9	5758.4	3334.4	2200.7	4228.9	4228.9	4009.4	3334.4	2747.6	2747.6	2747.6	3852.88
Stack Area, (square inches)	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.39
Static Pressure, (inches of water)	-0.10	-0.07	-0.12	-0.08	-0.04	-0.08	-0.05	-0.06	-0.11	-0.13	-0.12	-0.08	-0.09
Stack Pressure, (inches of mercury)	29.98	29.98	29.98	29.98	29.99	29.98	29.99	29.99	29.98	29.98	29.98	29.98	29.98
Average Stack Temperature, (°F)	160	161	153	164	155	153	160	161	157	154	159	160	158.04
Average Sqroot of ΔP	0.5560	0.5554	0.5668	0.5018	0.5594	0.5649	0.5489	0.5563	0.5091	0.5414	0.5576	0.5488	0.55
SDE Average	13.841	13.845	14.030	12.534	13.876	13.991	13.663	13.860	12.648	13.413	13.867	13.666	13.60
Pitot Coefficient	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Stack Gas Velocity, (actual feet per minute - afpm)	2,042	2,043	2,073	1,853	2,048	2,063	2,016	2,048	1,870	1,981	2,049	2,018	2008.68
Stack Flowrate, (actual cubic feet per minute - acfm)	6,416	6,419	6,511	5,822	6,434	6,482	6,334	6,433	5,873	6,225	6,437	6,339	6310.44
Stack Flowrate, (standard cubic feet per minute - scfm)	5,478	5,467	5,622	4,938	5,533	5,591	5,409	5,484	5,035	5,366	5,507	5,409	5403.25
Stack Flowrate, (dry standard cubic feet per minute - dscfm)	5,248	5,236	5,355	4,681	5,281	5,377	5,184	5,228	4,782	5,116	5,244	5,172	5158.67

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester NH	Dryer	4	4-1-4-3	11/27/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
TCP	24		29.99	—	—	—	—	3' SS	—	—

DGM No.	DGM Delta H@	DGM CAL Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
8086	2073	980	—	—	—	—	—	0.00	15			—

	Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp. (°F)	Probe Temp. (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp. (°F) DGM In	DGM Temp. (°F) DGM Out	Sample Train Vacuum (in Hg)	Imp Weights
4-1 DSNS 1A		1050	0	804.228		2.0				39			73	71	2	3658
			10							39			71	71	2	3630
			20	818.7						39			71	71	2	
			30	826.1						40			71	71	2	
			40	833.7						41			70	71	2	
	*	1132	41	835.001												
			Post Test Leak check 0.00 ~~inches~~ cfm in 60sec @ 8 inches													
			Pre Test leak check 0.00 ~~cfm~~ in 60sec @ 8 inches													
4-2 DSNS 1B	**	1140	** 0	835.115		2.0				39			72	72	2	3569
			10	843.9						39			71	72	2	3547
			20	851.4						41			72	72	2	
			30	859.0						42			72	72	2	
			31	859.165												
			Post Test leak check 0.00 cf in 60sec @ 7 inches													
			Pre Test leak check 0.00 cf in 60sec @ 7 inches													
4-3 DSNS 2A		1222	0	859.309		2.0				39			73	72	2	3595
			10	866.7						41			72	73	2	3569
			20	874.2						43			72	73	2	
			30	881.9						43			72	73	2	
		1255	34	884.418												
			Post test Leak check 0.00 cf in 60sec @ 8 inches													

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp.

TRC

* Run long because we missed text that run ended ** started run late, we were changing impingers + plant started before we were ready

193461.0000.0000 Report Appendices
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ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
GtK Manchester NH	Dryer	4	4-4 – 4-6	11/27/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP	2.073		29.99	—	—	—	—	3.5	—	

DGM No.	DGM Delta H@	DGM CAL Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
808762	1.9	.98	—	—		—	—	0.00	8			—

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp (°F)	Probe Temp (°F)	Filter Oven Temp (°F)	Impinger Temp (°F)	Filter Exit or Heated Line Temp (°F)	XAD Trap Temp (°F)	DGM Temp (°F) DGM In	DGM Temp (°F) DGM Out	Sample Train Vacuum (in Hg)	Impinger Weights
4-4 DONS 2B	1305	0	884.558		2.0				42			74	73	2	3625
		10	891.9						41			72	73	2	3595
		20	899.4						43			72	73	2	
		30	907.8						44			72	73	2	
	1340	35	910.888												
		Post test leak check 0.00 @ 7"													
		pretest leak check 0.00 @ 7"													
4-5 DONS 3A	1350	0	910.911		2.0				39			74	74	2	3656
		10	918.4						42			72	73	2	3625
		20	926						44			72	73	2	
		30	933.2						45			72	73	2	
	1432	42	942.184												
		Post test leak check 0.00 @ 7"													
		pre test leak check 0.00 @ 7"													
4-6 DONS 3B	1447	0	942.362		2.0				39			75	74	2	3670
		10	949.8						43			73	74	2	
		20	957.0						45			72	73	2	3656
		30	964.3						47			72	73	2	
	1523	36	969.097												
		Post test leak check 0.00 @ 7"													

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester	Dryer	4	4-7 – 4-9	11/27/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP	24	35	29.99	—	—	—	—	3'SS	—	

DGM No.	DGM Delta H@	DGM CAL. Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
3876	2.073	.980	—	—	—	—	—	0.00	7	—	—	—

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp (°F)	Probe Temp (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp. (°F) DGM In	DGM Temp. (°F) DGM Out	Sample Train Vacuum (in Hg)	Impinger weights
4-7 DSNS 4A	1533	0	969.109		2.0				40			74	73	2	3699
		10	979.4						44			73	72	2	3678
		20	984.1						44			72	73	2	
		30	991						45			72	73	2	
	1605	32	992.410												
		Post test leak check 0.00 @ 6"													
		Pretest leak check 0.00 @ 6"													
4-8 DSNS 4B	1615	0	993.210		2.0				40			74	73	2	3725
		10	1000.6						43			72	73	2	3699
		20	1007.9						45			72	73	2	
		30	1015.6						45			72	73	2	
	1650	35	1018.858												
		Post test leak check 0.00 @ 7"													
		Pretest leak check 0.00 @ 7"													
4-9 DSNS 5A	1730	0	19.006		2.0				38			74	73	2	3612
		10	26.5		2.0				42			73	73	2	3583
		20	34.0		2.0				44			72	73	2	
		30	41.6		2.0				46			72	73	2	
	1805	35	45.430												
		Post test leak check 0.00 @ 7"													

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp.

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester, NH	Dryer	4	4-10 - 4-12	11/27/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP		30	29.99	—	—	—	—	3'30	—	

DGM No.	DGM Delta Hg	DGM CAL Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
808862	2.053	.980	—		—		—	0.00	7"	—		

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp (°F)	Probe Temp (°F)	Filter Oven Temp (°F)	Impinger Temp (°F)	Filter Exit or Heated Line Temp (°F)	XAD Trap Temp (°F)	DGM Temp (°F) DGM In	DGM Temp (°F) DGM Out	Sample Train Vacuum (in Hg)
4-10 DSNS 5B	1812	0	45.915	—	2.0	—	—	—	43	—	—	73	73	2
		10	53.5	—	2.0	—	—	—	45	—	—	72	73	2
		20	61.0	—	2.0	—	—	—	45	—	—	72	73	2
		30	68.6	—	2.0	—	—	—	46	—	—	72	73	2
	1830		74.610											
		Post Test leak check 0.00 @ 6"												
		Pre Test leak check 0.00 @ 6"												
4-11 DSNS 6A	1905	0	74.758	—	2.0	—	—	—	40	—	—	74	73	2
		10	82.2	—	2.0	—	—	—	45	—	—	72	73	2
		20	88.5	—	2.0	—	—	—	45	—	—	72	73	2
		30	94	—	2.0	—	—	—	45	—	—	73	73	2
	1940	36	100.709											
		Post Test leak check 0.00 @ 6"												
		Pre Test leak check 0.00 @ 6"												
4-12 DSNS 6B	1951	0	100.822	—	2.0	—	—	—	39	—	—	74	73	2
		10	108.	—	2.0	—	—	—	44	—	—	73	73	2
		20	115.6	—	2.0	—	—	—	46	—	—	72	73	2
		30	123.0	—	2.0	—	—	—	47	—	—	72	72	2
	2027	36	128.180											
		Post Test leak test 0.00 @ 6"												

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp

Impinger weights

3641
3612

3668
3641

3694
3668

TRC

Method 2 Data Sheet

Dryer 1A

Plant	G+K	Date	11-27-2012
Location	Dryer	Time	11:02

Stack Diameter		"	Area, A		ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.1	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.30		159			
	2	.34		159	0		
	3	.37		160			
	4	.37		159	0		
	5	.33		161	0		
	6	.30		161			
	7	.28		160	0		
	8	.28		159			
B	1	.27		159			
	2	.27		159	0		
	3	.32		161			
	4	.34		159	0		
	5	.33		159	0		
	6	.30		161			
	7	.28		161	0		
	8	.28		160			
	Average						

Average Absolute Temp.

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}_{avg}\ \sqrt{\dfrac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 1B

Plant	G+K	Date	11-27-2012
Location	Dryer	Time	11:41

Stack Diameter	24	"	2	Area, A	ft^2
Barometric Pressure, P_b	29.99	"Hg		Meter Temp.	°F
% Moisture		%H_2O		Stack O_2	%
Static Pressure, P_g	-.07	"H_2O		Stack CO_2	%
Pitot Coefficient, C_p	.84			MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.32		157			
	2	.35		161			
	3	.36		161			
	4	.36		163			
	5	.32		163			
	6	.29		163			
	7	.28		161			
	8	.27		159			
B	1	.27		161			
	2	.27		162			
	3	.30		164			
	4	.35		163			
	5	.34		163			
	6	.33		163			
	7	.27		159			
	8	.27		159			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 2A

Plant	G+K	Date	11-27-2012
Location	DRYER	Time	1224

Stack Diameter	24	"	3	Area, A	ft^2
Barometric Pressure, P_b	29.99	"Hg		Meter Temp.	°F
% Moisture		%H_2O		Stack O_2	%
Static Pressure, P_g	-.12	"H_2O		Stack CO_2	%
Pitot Coefficient, C_p	.84			MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.25		152			
	2	.27		150			
	3	.35		151			
	4	.37		152			
	5	.33		153			
	6	.32		153			
	7	.31		155			
	8	.29		152			
B	1	.26		152			
	2	.31		153			
	3	.36		155			
	4	.36		153			
	5	.36		154			
	6	.37		154			
	7	.36		155			
	8	.29		152			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\ \text{avg}\ \sqrt{\dfrac{T_{ST}\ \text{avg}}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Dryer 2B

Method 2 Data Sheet

Plant: G+K
Location: DRYER

Date: 11-27-2012
Time: 1321

Stack Diameter: 24 "
Barometric Pressure, P_b: 29.99 "Hg
% Moisture: %H_2O
Static Pressure, P_g: -.08 "H_2O
Pitot Coefficient, C_p: .84

4

Area, A: ft^2
Meter Temp.: °F
Stack O_2: %
Stack CO_2: %
MW (wet): lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.21		164			
	2	.26		164			
	3	.28		163			
	4	.28		165			
	5	.24		166			
	6	.22		165			
	7	.22		163			
	8	.21		162			
B	1	.21		162			
	2	.22		160			
	3	.25		164			
	4	.28		166			
	5	.33		167			
	6	.32		165			
	7	.28		163			
	8	.24		163			
	Average						

Average Absolute Temp.

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ DSCFM

Dryer 3A

Method 2 Data Sheet

Plant	G+K	Date	11 27 2012
Location	DRYER	Time	13:54

Stack Diameter	24	"	4	Area, A	ft²
Barometric Pressure, P_b	29.49	"Hg		Meter Temp.	°F
% Moisture		%H_2O		Stack O_2	%
Static Pressure, P_g	-.04	"H_2O		Stack CO_2	%
Pitot Coefficient, C_p	.84			MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.34		152			
	2	.35		153			
	3	.36		153			
	4	.36		152			
	5	.31		153			
	6	.28		153			
	7	.28		153			
	8	.28		153			
B	1	.28		152			
	2	.29		156			
	3	.31		157			
	4	.35		159			
	5	.34		160			
	6	.33		161			
	7	.28		159			
	8	.28		159			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 3B

Plant	G+K	Date	11-27-2012
Location	DRYER	Time	14:49

Stack Diameter	24	"	Area, A	ft²
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.	°F
% Moisture		%H_2O	Stack O_2	%
Static Pressure, P_g	-.08	"H_2O	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		153			
	2	.31		153			
	3	.36		155			
	4	.36		154			
	5	.32		153			
	6	.28		152			
	7	.28		154			
	8	.28		155			
B	1	.29		152			
	2	.32		153			
	3	.35		154			
	4	.36		153			
	5	.37		155			
	6	.36		154			
	7	.32		153			
	8	.28		152			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}\,avg \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 4A

Plant	G+K	Date	11 27 2012
Location	DRYER	Time	15:36

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.	°F
% Moisture		$\%H_2O$	Stack O_2	%
Static Pressure, P_g	-.05	$"H_2O$	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		152			
	2	.32		154			
	3	.34		156			
	4	.34		157			
	5	.30		159			
	6	.28		160			
	7	.27		159			
	8	.27		160			
B	1	.28		159			
	2	.28		160			
	3	.29		161			
	4	.32		163			
	5	.33		161			
	6	.34		162			
	7	.31		162			
	8	.28		161			
				160			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_S = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST\ avg}}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 4B

Plant	G+K	Date	11-27-2012
Location	DRYER	Time	16:23

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.06	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.32		158			
	2	.34		161			
	3	.34		161			
	4	.34		161			
	5	.32		161			
	6	.29		161			
	7	.28		160			
	8	.28		161			
B	1	.28		160			
	2	.28		161			
	3	.29		161			
	4	.33		162			
	5	.36		161			
	6	.33		162			
	7	.30		161			
	8	.28		160			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer
~~JB 54~~ (RD)

Plant	G + K	Date	11-27-2012
Location	DRYER	Time	17:35

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.11	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.26		152			
	2	.28		152			
	3	.28		151			
	4	.29		152			
	5	.29		152			
	6	.28		156			
	7	.26		155			
	8	.27		156			
B	1	.25		157			
	2	.26		161			
	3	.28		161			
	4	.31		163			
	5	.32		163			
	6	.31		164			
	7	.31		160			
	8	.28		160			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST\,avg}}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer (5B)

Plant	G+K	Date	11 27 2012
Location	DRYER	Time	18:16

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.	°F
% Moisture		$\%H_2O$	Stack O_2	%
Static Pressure, P_g	-.13	$"H_2O$	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_s (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		152			
	2	.28		152			
	3	.33		153			
	4	.35		154			
	5	.31		153			
	6	.28		153			
	7	.27		152			
	8	.27		152			
B	1	.27		152			
	2	.26		153			
	3	.28		153			
	4	.31		155			
	5	.34		157			
	6	.31		157			
	7	.28		157			
	8	.28		156			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Dryer
CeA

Method 2 Data Sheet

Plant	G+K	Date	11-27-2012
Location	DRYER	Time	19:10

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.94	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.12	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_s (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.26		157			
	2	.28		158			
	3	.32		159			
	4	.33		159			
	5	.32		159			
	6	.29		158			
	7	.28		158			
	8	.26		158			
B	1	.30		156			
	2	.34		158			
	3	.36		159			
	4	.37		160			
	5	.35		160			
	6	.34		159			
	7	.31		159			
	8	.28		159			
				←			
	Average						

Average Absolute Temp. ____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ ____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ ____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ ____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ ____ DSCFM

Method 2 Data Sheet

Dryer GB

Plant	G+K	Date	11-27-2012
Location	DRYER	Time	19:55

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.08	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.30		157			
	2	.35		158			
	3	.35		158			
	4	.36		159			
	5	.34		160			
	6	.29		160			
	7	.28		161			
	8	.28		160			
B	1	.26		160			
	2	.28		161			
	3	.30		160			
	4	.31		161			
	5	.30		164			
	6	.28		160			
	7	.28		161			
	8	.27		161			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\dfrac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Shop Towel w/ Strip

CEM CALIBRATION DATA
EPA Method 25A

Firm:	G&K	Analyzer:	California Analytical
Location:	Manchester, NH	Span Value (S):	8936
Operator	W Deveau	Analyzer Range:	30000
Sample Location:	Dryer Stack		
Date:	28-Nov-12		

TOTAL HYDROCARBONS

PRE-TEST Calibration Error Check:

	Cylinder ID	Cylinder Gas Conc. (Ca)	Analyzer Response (C)	Slope (m)	Predicted Response (pr)	Calibration Error (<5%) (ce)
Zero, C_O		0.0	-0.11			
C_{low} (25-35% span)	xc0033311b	2922.0	2923.0	0.9999	2921.8	0.0%
C_{mid} (45-55% span)	cc349917	4940.0	4940.9	0.9999	4939.6	0.0%
C_{high} (80-90% span)	cc351430	8936.0	8935.2	0.9999	8935.3	0.0%

Calibration Drift Check:

Run No:		1	2	3	4	AVG
Time						
Initial Zero	C_{OI}	-0.1	8.5	-5.6	-4.5	
Initial Span	C_{MI}	2923.0	2918.8	2930.8	2921.6	
Final Zero	C_{OF}	8.5	-5.6	-4.5	8.5	
Final Span	C_{MF}	2918.8	2930.8	2921.6	2916.3	
Calibration Drift (< 3%)	CD_O	-0.1%	0.2%	0.0%	-0.1%	
Calibration Drift (< 3%)	CD_M	0.0%	-0.1%	0.1%	0.1%	
THC Conc. (ppm, wet)	C_{THCavg}					

Nomenclature

C_{high}	Span gas analyzer response
C_O	Zero gas analyzer response
C_a	Cylinder gas value
C_{OI}	Initial calibration zero response
C_{OF}	Final calibration zero response
C_{MI}	Initial calibration upscale response
C_{MF}	Final calibration upscale response
CDo	Zero calibration drift
CDm	Upscale calibration drift
m	Slope
pr	Predicted response
ce	Calibration error
C	Analyzer response
S	Span
C_{NMHC}	Non-methane hydrocarbon concentration
C_{THC}	Total hydrocarbon concentration
C_{CH4}	Methane concentration

Calculations

$$m = (C_{high} - C_O) / C_a$$

$$pr = m \times C_a$$

$$ce = (C - pr) / C_a \times 100$$

$$CD_O = (C_{OI} - C_{OF}) / S$$

$$C_{NMHC} = C_{THC} - C_{CH4}$$

$$ER = C_{avg} \quad MW \quad 2.5962e\text{-}9 \quad Q \quad 60$$

where,

MW = molecular weight of methane, 16.04
2.5962e-9 = conversion from ppm to pounds per standard cubic feet.
60 = conversion from minutes to hour
Q = flow in units of standard cubic feet per minute

h:\stack\connecticut\projects\2012\g&k - manchester, nh\compliance testing\field data\nov 28 - shop towels with strip\[g&k - dryer emissions - shop towels - 11-28-2012.xls]calibration s 12/13/112 13:

Cylinder Gas	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero ID			
Zero Expiration			
Low ID	XC03311B		
Low Expiration	42000		
Low Concentration	2922		
Mid ID	CC349917	CC408666	CC408666
Mid Expiration	7/7/2014	7/5/2014	7/5/2014
Mid Concentration	4940	9.93	10.02
High ID	CC351430	CC349923	CC349923
High Expiration	10/21/2014	11/9/2014	11/9/2014
High Concentration	8936	21.97	17.69

Calibration Error	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero Response	-0.11	0	0.01
Zero Error (%)	0	0.02	0.06
Low Response	2923.01		
Low Error (%)	0.03		
Mid Response	4940.88	9.93	10.02
Mid Error (%)	0.02	0	0
High Response	8935.15	21.97	17.69
High Error (%)	-0.01	0.01	-0.01

Initial Bias	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero Response	0	0.02	0.01
Zero Bias (%)	0	0.08	-0.01
Span Concentration	2922	9.93	10.02
Span Response	0	9.95	10.03
Span Bias (%)	0	0.09	0.07

Shop Towels w/ Strip

Log Averages	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
28Nov2012 - 07:31:00	8.14	21.03	-0.08
28Nov2012 - 07:32:00	19.85	21.02	-0.03
28Nov2012 - 07:33:00	25.24	21.04	0
28Nov2012 - 07:34:00	36.52	21.06	0.07
28Nov2012 - 07:35:00	44.02	21.06	0.11
28Nov2012 - 07:36:00	17.64	21.06	-0.03
28Nov2012 - 07:37:00	30.62	21.07	0.05
28Nov2012 - 07:38:00	52.41	21.06	0.16
28Nov2012 - 07:39:00	12.32	21.05	-0.07
28Nov2012 - 07:40:00	68.53	21.08	0.24
28Nov2012 - 07:41:00	43.65	21.06	0.1
28Nov2012 - 07:42:00	23.46	21.11	0.02
28Nov2012 - 07:43:00	48.11	21.11	0.14
28Nov2012 - 07:44:00	75.78	21.01	0.28
28Nov2012 - 07:45:00	43.48	21.08	0.1
28Nov2012 - 07:46:00	45.96	21.1	0.12
28Nov2012 - 07:47:00	32.82	21.12	0.06
28Nov2012 - 07:48:00	49.49	21.07	0.14
28Nov2012 - 07:49:00	54.67	21.07	0.16
28Nov2012 - 07:50:00	32.86	21.08	0.06
28Nov2012 - 07:51:00	7.15	21.01	-0.15
28Nov2012 - 07:52:00	27.2	21.1	-0.03
28Nov2012 - 07:53:00	44.45	21.07	0.06
28Nov2012 - 07:54:00	76.19	21.11	0.22
28Nov2012 - 07:55:00	58.87	21.07	0.13
28Nov2012 - 07:56:00	57.23	21.08	0.13
28Nov2012 - 07:57:00	49.46	21.09	0.09
28Nov2012 - 07:58:00	64.78	21.06	0.16
28Nov2012 - 07:59:00	46.82	21.09	0.08
28Nov2012 - 08:00:00	39.82	21.07	0.04
28Nov2012 - 08:01:00	39.72	21.08	0.03
28Nov2012 - 08:02:00	40.43	21.09	0.04
28Nov2012 - 08:03:00	49.4	21.11	0.09
28Nov2012 - 08:04:00	51.92	21.11	0.1
28Nov2012 - 08:05:00	38.1	21.1	0.03
28Nov2012 - 08:06:00	42.44	21.11	0.05
28Nov2012 - 08:07:00	46.43	21.13	0.08
28Nov2012 - 08:08:00	44.39	21.11	0.05
28Nov2012 - 08:09:00	39.59	21.13	0.04
28Nov2012 - 08:10:00	39.31	21.13	0.03
28Nov2012 - 08:11:00	58.74	21.16	0.14
28Nov2012 - 08:12:00	49.14	21.16	0.08
28Nov2012 - 08:13:00	44.34	21.12	0.05
28Nov2012 - 08:14:00	33.63	21.19	0.02
28Nov2012 - 08:15:00	30.26	21.13	-0.01
28Nov2012 - 08:16:00	39.49	21.16	0.04
28Nov2012 - 08:17:00	67.3	21.2	0.19
28Nov2012 - 08:18:00	28.08	21.19	-0.01
28Nov2012 - 08:19:00	4.86	21.1	-0.14
28Nov2012 - 08:20:00	18.01	21.11	-0.09
28Nov2012 - 08:21:00	80.68	21.19	0.25
28Nov2012 - 08:22:00	64.31	21.16	0.17
28Nov2012 - 08:23:00	52.62	21.17	0.11
28Nov2012 - 08:24:00	49.2	21.15	0.08
28Nov2012 - 08:25:00	69.86	21.16	0.2
28Nov2012 - 08:26:00	9.45	21.12	-0.13
28Nov2012 - 08:27:00	4.06	21.07	-0.18
28Nov2012 - 08:28:00	14.14	21.11	-0.1
28Nov2012 - 08:29:00	61.67	21.17	0.16
28Nov2012 - 08:30:00	32.69	21.17	0
28Nov2012 - 08:31:00	40.09	21.18	0.04
28Nov2012 - 08:32:00	20.24	21.16	-0.04
28Nov2012 - 08:33:00	74.57	21.18	0.23
28Nov2012 - 08:34:00	38.41	21.15	0.04
28Nov2012 - 08:35:00	41.01	21.16	0.05
28Nov2012 - 08:36:00	55.4	21.16	0.13
28Nov2012 - 08:37:00	48.97	21.17	0.09
28Nov2012 - 08:38:00	38.69	21.13	0.03
28Nov2012 - 08:39:00	29.11	21.15	-0.01
28Nov2012 - 08:40:00	52.11	21.16	0.11
28Nov2012 - 08:41:00	43.81	21.16	0.07
28Nov2012 - 08:42:00	50.22	21.17	0.11
28Nov2012 - 08:43:00	53.07	21.15	0.11

Dryer Exhaust Summaries

Time	Ave THC Conc	MW	(SCFM)	lb/hr
1106 - 1139	765.5	12	5663	8.08
1150 - 1223	606.5	12	5585	6.32
1237 - 1313	737.8	12	5524	7.60
1328 - 1404	564.9	12	5355	5.64
1424 - 1500	468.1	12	5412	4.72
1516 - 1556	561.3	12	5378	5.63
1605 - 1640	553.8	12	5284	5.46
1658 - 1733	564.4	12	5396	5.68
1755 - 1830	618.1	12	5346	6.16
1852 - 1925	638.5	12	5352	6.37
1943 - 2017	678.8	12	5411	6.85
2025 - 2058	735.4	12	5444	7.47
Daily Average	622.2	12	5429	6.30

Dryer Off

Daily Average	88.6	12	100	0.017

28Nov2012 - 08:44:00	35.91	21.2	0.04
28Nov2012 - 08:45:00	12.36	21.13	-0.09
28Nov2012 - 08:46:00	47.85	21.19	0.1
28Nov2012 - 08:47:00	42.15	21.18	0.06
28Nov2012 - 08:48:00	62.18	21.16	0.17
28Nov2012 - 08:49:00	21.55	21.14	-0.04
28Nov2012 - 08:50:00	73.47	21.17	0.22
28Nov2012 - 08:51:00	35.31	21.19	0.04
28Nov2012 - 08:52:00	38.61	21.14	0.04
28Nov2012 - 08:53:00	76.62	21.15	0.24
28Nov2012 - 08:54:00	59.13	21.16	0.16
28Nov2012 - 08:55:00	14.22	21.13	-0.08
28Nov2012 - 08:56:00	81.74	21.17	0.26
28Nov2012 - 08:57:00	49.83	21.2	0.11
28Nov2012 - 08:58:00	20.16	21.14	-0.05
28Nov2012 - 08:59:00	44.16	21.15	0.08
28Nov2012 - 09:00:00	78.4	21.16	0.25
28Nov2012 - 09:01:00	45.16	21.15	0.08
28Nov2012 - 09:02:00	43.91	21.15	0.07
28Nov2012 - 09:03:00	46.82	21.15	0.09
28Nov2012 - 09:04:00	46.07	21.15	0.08
28Nov2012 - 09:05:00	49.57	21.15	0.1
28Nov2012 - 09:06:00	48.93	21.15	0.1
28Nov2012 - 09:07:00	51.25	21.14	0.11
28Nov2012 - 09:08:00	40.13	21.14	0.06
28Nov2012 - 09:09:00	50.98	21.16	0.11
28Nov2012 - 09:10:00	43.34	21.19	0.08
28Nov2012 - 09:11:00	7.85	21.1	-0.13
28Nov2012 - 09:12:00	66.44	21.15	0.19
28Nov2012 - 09:13:00	47.91	21.15	0.1
28Nov2012 - 09:14:00	32.43	21.16	0.02
28Nov2012 - 09:15:00	84.18	21.13	0.28
28Nov2012 - 09:16:00	76.76	21.16	0.24
28Nov2012 - 09:17:00	44.35	21.14	0.07
28Nov2012 - 09:18:00	41.93	21.16	0.06
28Nov2012 - 09:19:00	29.85	21.12	0.01
28Nov2012 - 09:20:00	45.27	21.16	0.08
28Nov2012 - 09:21:00	75.21	21.18	0.24
28Nov2012 - 09:22:00	32.18	21.14	0.01
28Nov2012 - 09:23:00	73.79	21.15	0.23
28Nov2012 - 09:24:00	26.98	21.13	-0.02
28Nov2012 - 09:25:00	51.72	21.16	0.12
28Nov2012 - 09:26:00	51.88	21.13	0.12
28Nov2012 - 09:27:00	47.15	21.16	0.1
28Nov2012 - 09:28:00	54.11	21.15	0.13
28Nov2012 - 09:29:00	76.5	21.12	0.25
28Nov2012 - 09:30:00	47.42	21.15	0.09
28Nov2012 - 09:31:00	79.49	21.15	0.26
28Nov2012 - 09:32:00	48.03	21.13	0.09
28Nov2012 - 09:33:00	64.99	21.18	0.19
28Nov2012 - 09:34:00	39.12	21.16	0.06
28Nov2012 - 09:35:00	30.73	21.14	0
28Nov2012 - 09:36:00	67.71	21.17	0.2
28Nov2012 - 09:37:00	34.37	21.15	0.02
28Nov2012 - 09:38:00	46.84	21.16	0.09
28Nov2012 - 09:39:00	49.26	21.16	0.1
28Nov2012 - 09:40:00	29.21	21.14	-0.01
28Nov2012 - 09:41:00	55.08	21.16	0.13
28Nov2012 - 09:42:00	54.46	21.17	0.13
28Nov2012 - 09:43:00	25.63	21.18	-0.02
28Nov2012 - 09:44:00	32.94	21.17	0.02
28Nov2012 - 09:45:00	44.34	21.15	0.08
28Nov2012 - 09:46:00	12.56	21.14	-0.09
28Nov2012 - 09:47:00	36.05	21.2	0.03
28Nov2012 - 09:48:00	42.73	21.15	0.07
28Nov2012 - 09:49:00	39.53	21.16	0.05
28Nov2012 - 09:50:00	47.21	21.16	0.09
28Nov2012 - 09:51:00	41.33	21.13	0.05
28Nov2012 - 09:52:00	72.83	21.16	0.22
28Nov2012 - 09:53:00	36.87	21.18	0.03
28Nov2012 - 09:54:00	49.49	21.15	0.1
28Nov2012 - 09:55:00	58.21	21.16	0.14
28Nov2012 - 09:56:00	50.18	21.16	0.1
28Nov2012 - 09:57:00	71.83	21.21	0.22
28Nov2012 - 09:58:00	73.38	21.2	0.22
28Nov2012 - 09:59:00	33.49	21.15	0.01

28Nov2012 - 10:00:00	30.21	21.13	0	
28Nov2012 - 10:01:00	31.95	21.14	0	
28Nov2012 - 10:02:00	50.57	21.17	0.1	
28Nov2012 - 10:03:00	54.38	21.16	0.12	
28Nov2012 - 10:04:00	41.56	21.17	0.06	
28Nov2012 - 10:05:00	62.08	21.19	0.17	
28Nov2012 - 10:06:00	44.84	21.15	0.08	
28Nov2012 - 10:07:00	79.08	21.12	0.26	
28Nov2012 - 10:08:00	49.51	21.19	0.1	
28Nov2012 - 10:09:00	80.72	21.16	0.26	
28Nov2012 - 10:10:00	59.23	21.21	0.16	
28Nov2012 - 10:11:00	56.76	21.19	0.14	
28Nov2012 - 10:12:00	39.49	21.16	0.05	
28Nov2012 - 10:13:00	59.75	21.15	0.16	
28Nov2012 - 10:14:00	59.72	21.15	0.16	
28Nov2012 - 10:15:00	70.41	21.23	0.21	
28Nov2012 - 10:16:00	74.76	21.19	0.24	
28Nov2012 - 10:17:00	57.98	21.14	0.15	
28Nov2012 - 10:18:00	40.62	21.2	0.07	
28Nov2012 - 10:19:00	81.02	21.14	0.27	
28Nov2012 - 10:20:00	50.26	21.24	0.12	
28Nov2012 - 10:21:00	58.58	21.17	0.15	
28Nov2012 - 10:22:00	61.08	21.11	0.16	
28Nov2012 - 10:23:00	69.15	21.19	0.21	
28Nov2012 - 10:24:00	38.32	21.2	0.04	
28Nov2012 - 10:25:00	41.44	21.17	0.05	
28Nov2012 - 10:26:00	60.69	21.14	0.16	
28Nov2012 - 10:27:00	46.86	21.2	0.1	
28Nov2012 - 10:28:00	85.1	21.11	0.28	
28Nov2012 - 10:29:00	58.78	21.15	0.15	
28Nov2012 - 10:30:00	56.41	21.14	0.14	
28Nov2012 - 10:31:00	78.85	21.12	0.26	
28Nov2012 - 10:32:00	80.53	21.14	0.26	
28Nov2012 - 10:33:00	41.03	21.2	0.07	
28Nov2012 - 10:34:00	83.21	21.1	0.28	
28Nov2012 - 10:35:00	57	21.13	0.14	
28Nov2012 - 10:36:00	69.58	21.18	0.21	
28Nov2012 - 10:37:00	30.97	21.14	0	
28Nov2012 - 10:38:00	33.33	21.16	0.02	
28Nov2012 - 10:39:00	57.12	21.15	0.14	
28Nov2012 - 10:40:00	59.99	21.16	0.16	
28Nov2012 - 10:41:00	42.73	21.14	0.06	
28Nov2012 - 10:42:00	75.33	21.15	0.24	
28Nov2012 - 10:43:00	40.78	21.22	0.07	
28Nov2012 - 10:44:00	37.91	21.17	0.04	
28Nov2012 - 10:45:00	43.65	21.18	0.07	
28Nov2012 - 10:46:00	30.24	21.11	-0.01	
28Nov2012 - 10:47:00	208.57	21.13	0.07	
28Nov2012 - 10:48:00	2835.71	21.06	0.02	
28Nov2012 - 10:49:00	2918.8	21.26	0.16	SPAN
28Nov2012 - 10:50:00	2839.93	21.2	0.24	
28Nov2012 - 10:51:00	173.43	13.13	7.79	
28Nov2012 - 10:52:00	8.51	10.17	10.17	ZERO
28Nov2012 - 10:53:00	4.88	11.34	8.93	
28Nov2012 - 10:54:00	0.54	21.02	0.16	
28Nov2012 - 10:55:00	32.98	21.17	0.04	
28Nov2012 - 10:56:00	11.35	21.11	-0.1	
28Nov2012 - 10:57:00	75.97	20.99	0.23	
28Nov2012 - 10:58:00	70.39	20.93	0.2	
28Nov2012 - 10:59:00	86.74	20.82	0.28	
28Nov2012 - 11:00:00	54.61	20.88	0.12	
28Nov2012 - 11:01:00	48.05	20.87	0.08	
28Nov2012 - 11:02:00	55.36	20.87	0.11	
28Nov2012 - 11:03:00	50.76	20.88	0.09	
28Nov2012 - 11:04:00	59.32	20.86	0.09	
28Nov2012 - 11:05:00	289.85	20.81	0.23	

START DRYER LOAD 1A

28Nov2012 - 11:06:00	322.07	20.7	0.2
28Nov2012 - 11:07:00	637.04	20.74	0.21
28Nov2012 - 11:08:00	711.66	19.99	0.46
28Nov2012 - 11:09:00	987.89	19.65	0.69
28Nov2012 - 11:10:00	1143.71	19.6	0.68
28Nov2012 - 11:11:00	1219.94	19.58	0.75
28Nov2012 - 11:12:00	1181.58	19.59	0.72

28Nov2012 - 11:13:00	1141.34	19.54	0.81
28Nov2012 - 11:14:00	1085.12	19.61	0.79
28Nov2012 - 11:15:00	1066.02	19.6	0.79
28Nov2012 - 11:16:00	1053.22	19.58	0.75
28Nov2012 - 11:17:00	1018.91	19.5	0.6
28Nov2012 - 11:18:00	1048.42	19.61	0.89
28Nov2012 - 11:19:00	947.32	19.7	0.86
28Nov2012 - 11:20:00	879.72	19.75	0.65
28Nov2012 - 11:21:00	897.27	19.72	0.7
28Nov2012 - 11:22:00	919.08	19.79	0.8
28Nov2012 - 11:23:00	816.87	19.93	0.49
28Nov2012 - 11:24:00	837.63	19.8	0.5
28Nov2012 - 11:25:00	869.09	19.8	0.6
28Nov2012 - 11:26:00	806.15	19.96	0.59
28Nov2012 - 11:27:00	888.89	19.96	0.65
28Nov2012 - 11:28:00	921.15	20.15	0.63
28Nov2012 - 11:29:00	835.23	20.32	0.34
28Nov2012 - 11:30:00	822.41	20.16	0.57
28Nov2012 - 11:31:00	774.78	20.23	0.43
28Nov2012 - 11:32:00	549.86	20.83	0.22
28Nov2012 - 11:33:00	370.21	20.85	0.06
28Nov2012 - 11:34:00	289.75	20.87	0.14
28Nov2012 - 11:35:00	226.77	20.87	0.08
28Nov2012 - 11:36:00	236.22	20.82	0.28
28Nov2012 - 11:37:00	185.96	20.88	0.11
28Nov2012 - 11:38:00	174.1	20.86	0.1
28Nov2012 - 11:39:00	161.43	20.85	0.11
END DRYER LOAD 1A			
AVERAGES	**765.5**	**20.1**	**0.5**
28Nov2012 - 11:40:00	152.56	20.86	0.14
28Nov2012 - 11:41:00	146.19	20.87	0.17
28Nov2012 - 11:42:00	120.45	20.83	0.08
28Nov2012 - 11:43:00	114.4	20.8	0.07
28Nov2012 - 11:44:00	132.16	20.76	0.02
28Nov2012 - 11:45:00	146.68	20.77	0.13
28Nov2012 - 11:46:00	139.31	20.76	0.13
28Nov2012 - 11:47:00	134.29	20.75	0.02
28Nov2012 - 11:48:00	253.7	20.75	0.21
28Nov2012 - 11:49:00	381.84	20.81	0.25
START DRYER LOAD 1B			
28Nov2012 - 11:50:00	297.12	20.75	0.27
28Nov2012 - 11:51:00	542.54	20.77	0.12
28Nov2012 - 11:52:00	657.7	20.13	0.47
28Nov2012 - 11:53:00	841.48	19.64	0.78
28Nov2012 - 11:54:00	958.19	19.62	0.84
28Nov2012 - 11:55:00	1012.97	19.57	0.66
28Nov2012 - 11:56:00	986.27	19.56	0.76
28Nov2012 - 11:57:00	1004.29	19.54	0.8
28Nov2012 - 11:58:00	1007.73	19.52	0.85
28Nov2012 - 11:59:00	936.24	19.54	0.78
28Nov2012 - 12:00:00	890.71	19.58	0.9
28Nov2012 - 12:01:00	756.51	19.77	0.68
28Nov2012 - 12:02:00	714.86	19.78	0.71
28Nov2012 - 12:03:00	683.54	19.8	0.67
28Nov2012 - 12:04:00	657.06	19.76	0.58
28Nov2012 - 12:05:00	619.28	19.95	0.55
28Nov2012 - 12:06:00	648.5	19.84	0.66
28Nov2012 - 12:07:00	633.45	19.92	0.67
28Nov2012 - 12:08:00	588.32	19.97	0.58
28Nov2012 - 12:09:00	590.9	19.93	0.51
28Nov2012 - 12:10:00	649.36	19.99	0.67
28Nov2012 - 12:11:00	608.55	20.04	0.5
28Nov2012 - 12:12:00	627.43	20.1	0.57
28Nov2012 - 12:13:00	573.88	20.14	0.42
28Nov2012 - 12:14:00	582.95	20.09	0.36
28Nov2012 - 12:15:00	646.78	20.13	0.58
28Nov2012 - 12:16:00	485.53	20.57	0.07
28Nov2012 - 12:17:00	319.22	20.85	0.05
28Nov2012 - 12:18:00	281.11	20.77	0.27
28Nov2012 - 12:19:00	233.88	20.76	0.27
28Nov2012 - 12:20:00	168.31	20.8	0.09
28Nov2012 - 12:21:00	152.87	20.79	0.11

28Nov2012 - 12:22:00	144.45	20.78	0.14	
28Nov2012 - 12:23:00	120.16	20.79	0.07	
END DRYER LOAD 1B				
AVERAGES	**606.5**	**20.1**	**0.5**	
28Nov2012 - 12:24:00	115.9	20.79	0.11	
28Nov2012 - 12:25:00	109.53	20.79	0.11	
28Nov2012 - 12:26:00	59.27	20.72	-0.14	
28Nov2012 - 12:27:00	66.36	20.77	-0.08	
28Nov2012 - 12:28:00	55.96	20.71	-0.14	
28Nov2012 - 12:29:00	584.98	20.17	0.43	
28Nov2012 - 12:30:00	2917.9	20.56	-0.05	
28Nov2012 - 12:31:00	2930.8	20.89	0.11	SPAN
28Nov2012 - 12:32:00	602.42	14.58	5.95	
28Nov2012 - 12:33:00	5.55	9.99	10.05	ZERO
28Nov2012 - 12:34:00	-18.13	12.77	7.12	
28Nov2012 - 12:35:00	152.81	20.65	0.3	
28Nov2012 - 12:36:00	414.68	20.74	0.25	
START DRYER LOAD 2A				
28Nov2012 - 12:37:00	292.03	20.78	-0.05	
28Nov2012 - 12:38:00	1097.2	20.78	0.26	
28Nov2012 - 12:39:00	1022.94	20.01	0.71	
28Nov2012 - 12:40:00	1135.18	19.63	0.9	
28Nov2012 - 12:41:00	1185.61	19.7	0.81	
28Nov2012 - 12:42:00	1149.27	19.59	0.81	
28Nov2012 - 12:43:00	1082.37	19.58	0.81	
28Nov2012 - 12:44:00	1042.78	19.53	0.61	
28Nov2012 - 12:45:00	992.94	19.51	0.62	
28Nov2012 - 12:46:00	975.86	19.53	0.85	
28Nov2012 - 12:47:00	925.21	19.61	0.8	
28Nov2012 - 12:48:00	847.64	19.72	0.8	
28Nov2012 - 12:49:00	777.66	19.74	0.73	
28Nov2012 - 12:50:00	776.63	19.81	0.81	
28Nov2012 - 12:51:00	775.75	19.77	0.8	
28Nov2012 - 12:52:00	750.83	19.74	0.55	
28Nov2012 - 12:53:00	739.91	19.81	0.68	
28Nov2012 - 12:54:00	738.99	19.81	0.64	
28Nov2012 - 12:55:00	749.35	19.88	0.54	
28Nov2012 - 12:56:00	795.52	19.9	0.73	
28Nov2012 - 12:57:00	818.49	19.84	0.63	
28Nov2012 - 12:58:00	834.59	19.91	0.61	
28Nov2012 - 12:59:00	793.1	19.99	0.59	
28Nov2012 - 13:00:00	822.59	19.96	0.67	
28Nov2012 - 13:01:00	826.48	20.02	0.57	
28Nov2012 - 13:02:00	818.06	20.16	0.51	
28Nov2012 - 13:03:00	884.68	20.03	0.54	
28Nov2012 - 13:04:00	811.8	20.16	0.3	
28Nov2012 - 13:05:00	701.02	20.53	0.32	
28Nov2012 - 13:06:00	446.81	20.72	-0.06	
28Nov2012 - 13:07:00	362.07	20.78	0.05	
28Nov2012 - 13:08:00	322.42	20.74	0.26	
28Nov2012 - 13:09:00	276.55	20.71	0.28	
28Nov2012 - 13:10:00	229.08	20.74	0.19	
28Nov2012 - 13:11:00	192.38	20.72	0.17	
28Nov2012 - 13:12:00	187.03	20.74	0.23	
28Nov2012 - 13:13:00	118.82	20.74	-0.04	
END DRYER LOAD 2A				
AVERAGES	**737.8**	**20.1**	**0.5**	
28Nov2012 - 13:14:00	131.68	20.71	0.09	
28Nov2012 - 13:15:00	156.87	20.72	0.28	
28Nov2012 - 13:16:00	141.12	20.72	0.15	
28Nov2012 - 13:17:00	120.82	20.73	0.07	
28Nov2012 - 13:18:00	127.67	20.73	0.1	
28Nov2012 - 13:19:00	123.92	20.73	0.09	
28Nov2012 - 13:20:00	154.27	20.71	0.27	
28Nov2012 - 13:21:00	126.27	20.76	0.13	
28Nov2012 - 13:22:00	92.26	20.92	-0.05	
28Nov2012 - 13:23:00	128.46	21.12	0.17	
28Nov2012 - 13:24:00	115.21	21.19	0.12	
28Nov2012 - 13:25:00	163.52	21.08	0.1	
28Nov2012 - 13:26:00	470.82	21.01	0.07	

28Nov2012 - 13:27:00	435.37	20.88	0.14	
START DRYER LOAD 2B				
28Nov2012 - 13:28:00	309.52	20.8	0.1	
28Nov2012 - 13:29:00	718.64	20.73	0.16	
28Nov2012 - 13:30:00	747.16	20.1	0.47	
28Nov2012 - 13:31:00	856.87	19.62	0.88	
28Nov2012 - 13:32:00	853.08	19.63	0.72	
28Nov2012 - 13:33:00	850.6	19.61	0.67	
28Nov2012 - 13:34:00	844.83	19.6	0.78	
28Nov2012 - 13:35:00	830.8	19.56	0.78	
28Nov2012 - 13:36:00	806.23	19.55	0.74	
28Nov2012 - 13:37:00	811.69	19.55	0.87	
28Nov2012 - 13:38:00	753.57	19.46	0.54	
28Nov2012 - 13:39:00	724.47	19.68	0.67	
28Nov2012 - 13:40:00	671.43	19.79	0.73	
28Nov2012 - 13:41:00	599.79	19.66	0.43	
28Nov2012 - 13:42:00	595.7	19.72	0.49	
28Nov2012 - 13:43:00	630.68	19.79	0.78	
28Nov2012 - 13:44:00	572.19	19.81	0.57	
28Nov2012 - 13:45:00	561.01	19.86	0.61	
28Nov2012 - 13:46:00	580.48	19.8	0.69	
28Nov2012 - 13:47:00	587.9	19.95	0.72	
28Nov2012 - 13:48:00	578.56	19.95	0.71	
28Nov2012 - 13:49:00	593.84	19.89	0.76	
28Nov2012 - 13:50:00	566.52	20.02	0.7	
28Nov2012 - 13:51:00	557.22	19.97	0.55	
28Nov2012 - 13:52:00	571.47	20.02	0.56	
28Nov2012 - 13:53:00	540.47	20.05	0.32	
28Nov2012 - 13:54:00	543.29	20.07	0.29	
28Nov2012 - 13:55:00	568.4	20.14	0.46	
28Nov2012 - 13:56:00	532.81	20.34	0.35	
28Nov2012 - 13:57:00	358.28	20.72	0.09	
28Nov2012 - 13:58:00	243.76	20.72	0.03	
28Nov2012 - 13:59:00	220.03	20.7	0.26	
28Nov2012 - 14:00:00	142.76	20.72	0.04	
28Nov2012 - 14:01:00	150.01	20.8	0.2	
28Nov2012 - 14:02:00	135.9	20.72	0.21	
28Nov2012 - 14:03:00	126.91	20.66	0.21	
END DRYER LOAD 2B				
AVERAGES	**564.9**	**20.0**	**0.5**	
28Nov2012 - 14:04:00	119.17	20.7	0.22	
28Nov2012 - 14:05:00	82.75	20.67	0.08	
28Nov2012 - 14:06:00	77.37	20.73	0.1	
28Nov2012 - 14:07:00	23.53	20.66	-0.15	
28Nov2012 - 14:08:00	59.94	20.75	0.08	
28Nov2012 - 14:09:00	321.85	20.54	0.29	
28Nov2012 - 14:10:00	2910.39	20.1	0.68	
28Nov2012 - 14:11:00	2921.63	20.81	0.2	SPAN
28Nov2012 - 14:12:00	2198.06	20.82	0.06	
28Nov2012 - 14:13:00	61.5	10.95	9.22	
28Nov2012 - 14:14:00	7.44	9.88	10.01	
28Nov2012 - 14:15:00	-4.53	9.83	10.02	ZERO
28Nov2012 - 14:16:00	48.44	15.41	4.95	
28Nov2012 - 14:17:00	46.54	20.82	0.35	
28Nov2012 - 14:18:00	2.87	20.94	0.03	
28Nov2012 - 14:19:00	15.27	20.96	0.15	
28Nov2012 - 14:20:00	48.69	20.94	0.17	
28Nov2012 - 14:21:00	41.24	20.95	0.06	
28Nov2012 - 14:22:00	93.28	21.04	0.16	
28Nov2012 - 14:23:00	74.48	20.95	-0.07	
START DRYER LOAD 3A				
28Nov2012 - 14:24:00	219.11	20.99	0.12	
28Nov2012 - 14:25:00	472.91	20.97	0.17	
28Nov2012 - 14:26:00	593.71	20.21	0.43	
28Nov2012 - 14:27:00	768.63	19.88	0.68	
28Nov2012 - 14:28:00	828.77	19.83	0.68	
28Nov2012 - 14:29:00	840.59	19.78	0.8	
28Nov2012 - 14:30:00	838.21	19.74	0.78	
28Nov2012 - 14:31:00	834.1	19.71	0.83	
28Nov2012 - 14:32:00	795.27	19.67	0.76	

28Nov2012 - 14:33:00	735.68	19.78	0.66
28Nov2012 - 14:34:00	699.8	19.9	0.85
28Nov2012 - 14:35:00	634.4	19.97	0.71
28Nov2012 - 14:36:00	587.38	19.93	0.68
28Nov2012 - 14:37:00	514.33	20	0.5
28Nov2012 - 14:38:00	523.78	19.97	0.67
28Nov2012 - 14:39:00	522.79	20.02	0.77
28Nov2012 - 14:40:00	516.24	20.06	0.77
28Nov2012 - 14:41:00	484.87	20.05	0.59
28Nov2012 - 14:42:00	489.06	20.08	0.59
28Nov2012 - 14:43:00	494.76	20.05	0.61
28Nov2012 - 14:44:00	488.61	20.12	0.59
28Nov2012 - 14:45:00	452.75	20.14	0.51
28Nov2012 - 14:46:00	483.02	20.21	0.68
28Nov2012 - 14:47:00	487.49	20.27	0.65
28Nov2012 - 14:48:00	446	20.26	0.49
28Nov2012 - 14:49:00	439.46	20.25	0.37
28Nov2012 - 14:50:00	493.18	20.32	0.51
28Nov2012 - 14:51:00	411.45	20.65	0.29
28Nov2012 - 14:52:00	255.89	20.96	0.06
28Nov2012 - 14:53:00	194.37	20.95	0.14
28Nov2012 - 14:54:00	143.45	20.95	0.1
28Nov2012 - 14:55:00	124.1	20.94	0.09
28Nov2012 - 14:56:00	105.9	20.94	0.06
28Nov2012 - 14:57:00	102	20.94	0.1
28Nov2012 - 14:58:00	96.6	21	0.12
28Nov2012 - 14:59:00	92.89	21.01	0.14
28Nov2012 - 15:00:00	109.68	20.94	0.26
END DRYER RUN 3A			
AVERAGES	**468.1**	**20.3**	**0.5**
28Nov2012 - 15:01:00	78.31	20.95	0.12
28Nov2012 - 15:02:00	58.83	20.95	0.03
28Nov2012 - 15:03:00	55.27	21.01	0.05
28Nov2012 - 15:04:00	61.48	21.03	0.11
28Nov2012 - 15:05:00	35.67	21	0.01
28Nov2012 - 15:06:00	62.5	20.99	0.15
28Nov2012 - 15:07:00	87.08	20.96	0.18
28Nov2012 - 15:08:00	88.75	20.95	0.19
28Nov2012 - 15:09:00	39.79	20.92	-0.07
28Nov2012 - 15:10:00	63.38	20.94	0.06
28Nov2012 - 15:11:00	127.64	20.92	0.28
28Nov2012 - 15:12:00	119.54	20.96	0.02
28Nov2012 - 15:13:00	267.07	20.97	0.22
28Nov2012 - 15:14:00	220.07	20.98	0.12
28Nov2012 - 15:15:00	184.91	20.96	0.04
START DRYER LOAD 3B			
28Nov2012 - 15:16:00	181.69	20.97	0.1
28Nov2012 - 15:17:00	325.35	20.96	0.1
28Nov2012 - 15:18:00	647.31	20.66	0.38
28Nov2012 - 15:19:00	909.69	19.8	0.89
28Nov2012 - 15:20:00	1022.61	19.79	0.73
28Nov2012 - 15:21:00	1090.09	19.72	0.94
28Nov2012 - 15:22:00	1076.41	19.72	0.84
28Nov2012 - 15:23:00	1032.87	19.7	0.8
28Nov2012 - 15:24:00	1001.84	19.7	0.76
28Nov2012 - 15:25:00	917.67	19.59	0.58
28Nov2012 - 15:26:00	895.41	19.59	0.59
28Nov2012 - 15:27:00	827.71	19.68	0.59
28Nov2012 - 15:28:00	785.13	19.92	0.82
28Nov2012 - 15:29:00	739.53	19.86	0.73
28Nov2012 - 15:30:00	709.6	19.9	0.71
28Nov2012 - 15:31:00	711.51	19.87	0.7
28Nov2012 - 15:32:00	654.68	19.95	0.57
28Nov2012 - 15:33:00	604.79	19.94	0.41
28Nov2012 - 15:34:00	625.66	20	0.51
28Nov2012 - 15:35:00	659.06	20.08	0.64
28Nov2012 - 15:36:00	677.86	20.04	0.66
28Nov2012 - 15:37:00	638.5	20.13	0.58
28Nov2012 - 15:38:00	627.13	20.14	0.5
28Nov2012 - 15:39:00	681.43	20.16	0.67
28Nov2012 - 15:40:00	617	20.32	0.45
28Nov2012 - 15:41:00	672.58	20.24	0.66

28Nov2012 - 15:42:00	643.81	20.32	0.4
28Nov2012 - 15:43:00	657.71	20.35	0.47
28Nov2012 - 15:44:00	582.41	20.64	0.29
28Nov2012 - 15:45:00	393.9	20.98	0.16
28Nov2012 - 15:46:00	232.29	20.89	-0.13
28Nov2012 - 15:47:00	176.75	20.88	-0.13
28Nov2012 - 15:48:00	196.8	20.97	0.21
28Nov2012 - 15:49:00	135.57	20.97	0.03
28Nov2012 - 15:50:00	112.57	20.93	0.02
28Nov2012 - 15:51:00	138.21	20.95	0.24
28Nov2012 - 15:52:00	88.14	20.93	0.01
28Nov2012 - 15:53:00	111.2	20.98	0.2
28Nov2012 - 15:54:00	65.94	20.95	0
28Nov2012 - 15:55:00	65.8	20.93	0.02
28Nov2012 - 15:56:00	78.41	20.98	0.13
END DRYER RUN 3B			
AVERAGES	**561.3**	**20.3**	**0.4**
28Nov2012 - 15:57:00	44.44	20.91	-0.07
28Nov2012 - 15:58:00	27.67	20.88	-0.13
28Nov2012 - 15:59:00	67.62	20.95	0.13
28Nov2012 - 16:00:00	82.47	20.96	0.2
28Nov2012 - 16:01:00	65.16	20.95	0.13
28Nov2012 - 16:02:00	25.62	20.91	-0.08
28Nov2012 - 16:03:00	92.99	20.99	0.21
28Nov2012 - 16:04:00	62.38	20.94	0.02
START DRYER RUN 4A			
28Nov2012 - 16:05:00	144.36	20.95	0.04
28Nov2012 - 16:06:00	287.63	20.95	0.1
28Nov2012 - 16:07:00	359.74	20.07	0.58
28Nov2012 - 16:08:00	570.14	19.81	0.89
28Nov2012 - 16:09:00	658.55	19.74	0.67
28Nov2012 - 16:10:00	726.34	19.75	0.89
28Nov2012 - 16:11:00	770	19.71	0.94
28Nov2012 - 16:12:00	774.75	19.74	0.92
28Nov2012 - 16:13:00	780.4	19.71	0.91
28Nov2012 - 16:14:00	741.29	19.72	0.7
28Nov2012 - 16:15:00	684.5	19.95	0.77
28Nov2012 - 16:16:00	636.33	19.91	0.63
28Nov2012 - 16:17:00	661.42	19.92	0.82
28Nov2012 - 16:18:00	636.86	19.94	0.74
28Nov2012 - 16:19:00	576.06	19.91	0.44
28Nov2012 - 16:20:00	567.64	19.96	0.47
28Nov2012 - 16:21:00	595.08	19.97	0.49
28Nov2012 - 16:22:00	593.3	19.96	0.42
28Nov2012 - 16:23:00	595.86	20.08	0.57
28Nov2012 - 16:24:00	632.46	20.08	0.61
28Nov2012 - 16:25:00	688.35	20.12	0.74
28Nov2012 - 16:26:00	661.25	20.16	0.56
28Nov2012 - 16:27:00	737.6	20.05	0.71
28Nov2012 - 16:28:00	680.22	20.26	0.48
28Nov2012 - 16:29:00	745.91	20.13	0.54
28Nov2012 - 16:30:00	739.52	20.36	0.46
28Nov2012 - 16:31:00	746.06	20.3	0.52
28Nov2012 - 16:32:00	788.74	20.3	0.62
28Nov2012 - 16:33:00	547.33	20.95	0.15
28Nov2012 - 16:34:00	380.54	20.96	0.09
28Nov2012 - 16:35:00	317.77	20.93	0.22
28Nov2012 - 16:36:00	226.36	20.95	0.03
28Nov2012 - 16:37:00	195.02	20.95	0.06
28Nov2012 - 16:38:00	161.41	20.94	0.03
28Nov2012 - 16:39:00	172.92	20.95	0.2
28Nov2012 - 16:40:00	156.52	20.93	0.14
END DRYER RUN 4A			
AVERAGES	**553.8**	**20.3**	**0.5**
28Nov2012 - 16:41:00	160.7	20.98	0.22
28Nov2012 - 16:42:00	108.95	20.95	0.01
28Nov2012 - 16:43:00	142.9	20.95	0.28
28Nov2012 - 16:44:00	130.88	20.94	0.27
28Nov2012 - 16:45:00	105.81	21.01	0.19
28Nov2012 - 16:46:00	71.18	20.98	0.04

28Nov2012 - 16:47:00	48.31	20.95	-0.08
28Nov2012 - 16:48:00	34.5	20.9	-0.14
28Nov2012 - 16:49:00	93.92	20.97	0.19
28Nov2012 - 16:50:00	116.98	20.99	0.25
28Nov2012 - 16:51:00	79.6	20.96	0.03
28Nov2012 - 16:52:00	116.89	20.97	0.25
28Nov2012 - 16:53:00	119.64	20.94	0.27
28Nov2012 - 16:54:00	121.15	20.89	0.29
28Nov2012 - 16:55:00	81.18	20.98	0.07
28Nov2012 - 16:56:00	119.6	21.01	0.23
28Nov2012 - 16:57:00	120.09	20.93	0.2
START DRYER LOAD 4B			
28Nov2012 - 16:58:00	151.63	20.96	0.08
28Nov2012 - 16:59:00	295	20.95	0.12
28Nov2012 - 17:00:00	388.92	20.06	0.59
28Nov2012 - 17:01:00	553.25	19.76	0.66
28Nov2012 - 17:02:00	681.63	19.75	0.74
28Nov2012 - 17:03:00	761.74	19.73	0.79
28Nov2012 - 17:04:00	813.07	19.7	0.84
28Nov2012 - 17:05:00	865.62	19.71	0.95
28Nov2012 - 17:06:00	848.93	19.66	0.82
28Nov2012 - 17:07:00	870.92	19.66	0.83
28Nov2012 - 17:08:00	824.9	19.73	0.72
28Nov2012 - 17:09:00	763.06	19.93	0.72
28Nov2012 - 17:10:00	709.34	19.87	0.62
28Nov2012 - 17:11:00	727.56	19.89	0.81
28Nov2012 - 17:12:00	650.64	19.85	0.45
28Nov2012 - 17:13:00	647.02	20	0.63
28Nov2012 - 17:14:00	633.22	19.95	0.64
28Nov2012 - 17:15:00	684.13	19.97	0.8
28Nov2012 - 17:16:00	642.39	19.98	0.5
28Nov2012 - 17:17:00	634.12	20.06	0.56
28Nov2012 - 17:18:00	654.13	20.03	0.56
28Nov2012 - 17:19:00	641.43	20.11	0.46
28Nov2012 - 17:20:00	659.27	20.16	0.51
28Nov2012 - 17:21:00	643.19	20.16	0.34
28Nov2012 - 17:22:00	693.32	20.18	0.53
28Nov2012 - 17:23:00	728.73	20.21	0.5
28Nov2012 - 17:24:00	675.59	20.29	0.23
28Nov2012 - 17:25:00	660.7	20.57	0.38
28Nov2012 - 17:26:00	461.81	20.95	0.13
28Nov2012 - 17:27:00	330	20.95	0.1
28Nov2012 - 17:28:00	272.72	20.95	0.19
28Nov2012 - 17:29:00	185.01	20.95	-0.01
28Nov2012 - 17:30:00	184.43	20.96	0.15
28Nov2012 - 17:31:00	153.61	20.97	0.12
28Nov2012 - 17:32:00	140.98	20.95	0.15
28Nov2012 - 17:33:00	87.4	20.93	-0.08
END DRYER RUN 4B			
AVERAGES	**564.4**	**20.2**	**0.5**
28Nov2012 - 17:34:00	115.17	20.94	0.14
28Nov2012 - 17:35:00	86.79	21.01	0.05
28Nov2012 - 17:36:00	53.39	20.91	-0.12
28Nov2012 - 17:37:00	90.31	20.98	0.14
28Nov2012 - 17:38:00	44.68	20.93	-0.09
28Nov2012 - 17:39:00	39.42	20.93	-0.11
28Nov2012 - 17:40:00	101.96	20.96	0.26
28Nov2012 - 17:41:00	103.48	20.91	0.28
28Nov2012 - 17:42:00	93.36	20.91	0.24
28Nov2012 - 17:43:00	67.17	20.95	0.11
28Nov2012 - 17:44:00	67.41	20.97	0.11
28Nov2012 - 17:45:00	64.77	20.94	0.07
28Nov2012 - 17:46:00	81.46	20.89	0.17
28Nov2012 - 17:47:00	79.81	21.04	0.18
28Nov2012 - 17:48:00	86.77	20.92	0.23
28Nov2012 - 17:49:00	84.27	20.96	0.22
28Nov2012 - 17:50:00	55.54	20.97	0.07
28Nov2012 - 17:51:00	72.56	20.96	0.14
28Nov2012 - 17:52:00	84.76	20.95	0.15
28Nov2012 - 17:53:00	110.28	20.97	0.08
28Nov2012 - 17:54:00	187.38	20.95	0.26

START DRYER LOAD 5A

28Nov2012 - 17:55:00	111.53	20.98	-0.04
28Nov2012 - 17:56:00	420.95	20.94	0.28
28Nov2012 - 17:57:00	524.96	20.07	0.58
28Nov2012 - 17:58:00	710.94	19.84	0.67
28Nov2012 - 17:59:00	847.68	19.77	0.78
28Nov2012 - 18:00:00	914.66	19.71	0.71
28Nov2012 - 18:01:00	969.61	19.73	0.95
28Nov2012 - 18:02:00	968.09	19.74	0.84
28Nov2012 - 18:03:00	964.96	19.72	0.89
28Nov2012 - 18:04:00	962.16	19.73	0.84
28Nov2012 - 18:05:00	943.77	19.73	0.91
28Nov2012 - 18:06:00	844.38	19.96	0.83
28Nov2012 - 18:07:00	787.26	19.95	0.83
28Nov2012 - 18:08:00	765.92	19.79	0.64
28Nov2012 - 18:09:00	746	19.98	0.71
28Nov2012 - 18:10:00	656.44	19.91	0.44
28Nov2012 - 18:11:00	661.15	19.87	0.43
28Nov2012 - 18:12:00	671.14	19.92	0.49
28Nov2012 - 18:13:00	702.95	20.02	0.77
28Nov2012 - 18:14:00	687.73	20.11	0.72
28Nov2012 - 18:15:00	638.56	20.03	0.38
28Nov2012 - 18:16:00	630.84	20.07	0.35
28Nov2012 - 18:17:00	695.7	20.18	0.7
28Nov2012 - 18:18:00	700.18	20.25	0.67
28Nov2012 - 18:19:00	637.27	20.29	0.35
28Nov2012 - 18:20:00	693.75	20.28	0.6
28Nov2012 - 18:21:00	734.18	20.33	0.65
28Nov2012 - 18:22:00	649.42	20.51	0.34
28Nov2012 - 18:23:00	580.01	20.76	0.35
28Nov2012 - 18:24:00	344.52	20.92	-0.13
28Nov2012 - 18:25:00	299.47	21	0.18
28Nov2012 - 18:26:00	225.78	20.98	0.11
28Nov2012 - 18:27:00	193.92	20.99	0.13
28Nov2012 - 18:28:00	154.9	20.97	0.07
28Nov2012 - 18:29:00	118.55	20.99	-0.03
28Nov2012 - 18:30:00	92.83	20.96	-0.07
END DRYER RUN 5B			
AVERAGES	**618.1**	**20.2**	**0.5**
28Nov2012 - 18:31:00	122.89	21.01	0.2
28Nov2012 - 18:32:00	83.04	21.01	0.05
28Nov2012 - 18:33:00	80.32	21.01	0.08
28Nov2012 - 18:34:00	73.82	20.98	0.08
28Nov2012 - 18:35:00	103.42	20.97	0.27
28Nov2012 - 18:36:00	78.62	20.98	0.15
28Nov2012 - 18:37:00	91.4	20.98	0.23
28Nov2012 - 18:38:00	98.95	20.93	0.28
28Nov2012 - 18:39:00	88.34	21	0.24
28Nov2012 - 18:40:00	28.79	20.97	-0.07
28Nov2012 - 18:41:00	47.51	21.04	0.05
28Nov2012 - 18:42:00	52.03	20.98	0.06
28Nov2012 - 18:43:00	112.57	20.89	0.29
28Nov2012 - 18:44:00	96.52	20.97	0.23
28Nov2012 - 18:45:00	93.4	20.98	0.23
28Nov2012 - 18:46:00	104.65	20.96	0.29
28Nov2012 - 18:47:00	68.46	20.96	0.13
28Nov2012 - 18:48:00	70.59	20.97	0.13
28Nov2012 - 18:49:00	24.67	20.95	-0.08
28Nov2012 - 18:50:00	64.18	20.96	0.05
28Nov2012 - 18:51:00	85.72	20.96	0.15

START DRYER RUN 5B

28Nov2012 - 18:52:00	140.1	20.99	0.12
28Nov2012 - 18:53:00	392.09	20.98	0.1
28Nov2012 - 18:54:00	512.82	20.13	0.62
28Nov2012 - 18:55:00	720.4	19.78	0.69
28Nov2012 - 18:56:00	853.66	19.79	0.83
28Nov2012 - 18:57:00	904.3	19.74	0.82
28Nov2012 - 18:58:00	927.18	19.72	0.79
28Nov2012 - 18:59:00	941.02	19.68	0.85
28Nov2012 - 19:00:00	941.06	19.64	0.99
28Nov2012 - 19:01:00	931.66	19.67	0.98

28Nov2012 - 19:02:00	904.34	19.69	0.79
28Nov2012 - 19:03:00	908.77	19.65	0.95
28Nov2012 - 19:04:00	841.64	19.7	0.75
28Nov2012 - 19:05:00	775.94	19.88	0.76
28Nov2012 - 19:06:00	731.23	19.88	0.71
28Nov2012 - 19:07:00	712.8	19.88	0.72
28Nov2012 - 19:08:00	701.49	19.89	0.69
28Nov2012 - 19:09:00	693.1	19.91	0.66
28Nov2012 - 19:10:00	673.15	20.04	0.66
28Nov2012 - 19:11:00	652.02	20	0.62
28Nov2012 - 19:12:00	620.19	20.07	0.54
28Nov2012 - 19:13:00	639.01	20.08	0.58
28Nov2012 - 19:14:00	666.89	20.09	0.64
28Nov2012 - 19:15:00	679.83	20.14	0.58
28Nov2012 - 19:16:00	646.32	20.25	0.54
28Nov2012 - 19:17:00	643.03	20.2	0.46
28Nov2012 - 19:18:00	673.44	20.33	0.64
28Nov2012 - 19:19:00	633.61	20.39	0.45
28Nov2012 - 19:20:00	541.22	20.83	0.35
28Nov2012 - 19:21:00	366.9	21.01	0.21
28Nov2012 - 19:22:00	238.93	20.99	-0.01
28Nov2012 - 19:23:00	196.48	21.01	0.06
28Nov2012 - 19:24:00	167.5	20.97	0.11
28Nov2012 - 19:25:00	137.48	20.98	0.1
END DRYER RUN 5B			
AVERAGES	**638.5**	**20.2**	**0.6**
28Nov2012 - 19:26:00	107	20.99	0.02
28Nov2012 - 19:27:00	100.16	20.97	0.07
28Nov2012 - 19:28:00	120.09	20.99	0.24
28Nov2012 - 19:29:00	98.83	21.02	0.16
28Nov2012 - 19:30:00	80.99	20.99	0.09
28Nov2012 - 19:31:00	83.7	21	0.12
28Nov2012 - 19:32:00	102.29	20.99	0.23
28Nov2012 - 19:33:00	101.76	21.01	0.22
28Nov2012 - 19:34:00	37.19	20.92	-0.12
28Nov2012 - 19:35:00	54	20.94	0
28Nov2012 - 19:36:00	87.4	21	0.2
28Nov2012 - 19:37:00	47.1	20.95	0
28Nov2012 - 19:38:00	50.83	20.96	0.03
28Nov2012 - 19:39:00	15.01	20.89	-0.16
28Nov2012 - 19:40:00	56.64	20.91	-0.15
28Nov2012 - 19:41:00	12.2	20.91	-0.14
28Nov2012 - 19:42:00	49.05	20.98	0.08
START DRYER RUN 6A			
28Nov2012 - 19:43:00	64.32	21.01	0.17
28Nov2012 - 19:44:00	537.54	20.98	-0.02
28Nov2012 - 19:45:00	969.81	20.67	0.39
28Nov2012 - 19:46:00	1003.75	19.84	0.81
28Nov2012 - 19:47:00	1013.13	19.82	0.71
28Nov2012 - 19:48:00	1070.7	19.77	0.79
28Nov2012 - 19:49:00	1081.32	19.74	0.77
28Nov2012 - 19:50:00	969.3	19.73	0.72
28Nov2012 - 19:51:00	942.48	19.79	0.8
28Nov2012 - 19:52:00	924.68	19.71	0.81
28Nov2012 - 19:53:00	952.33	19.68	0.97
28Nov2012 - 19:54:00	892.87	19.83	0.9
28Nov2012 - 19:55:00	741.96	19.93	0.52
28Nov2012 - 19:56:00	731.6	19.94	0.83
28Nov2012 - 19:57:00	661.03	19.94	0.61
28Nov2012 - 19:58:00	633.55	19.85	0.42
28Nov2012 - 19:59:00	679.03	20	0.64
28Nov2012 - 20:00:00	664.22	20.06	0.59
28Nov2012 - 20:01:00	703.26	20.02	0.81
28Nov2012 - 20:02:00	698.5	20.12	0.65
28Nov2012 - 20:03:00	654.39	20.1	0.47
28Nov2012 - 20:04:00	639.54	20.14	0.47
28Nov2012 - 20:05:00	719.82	20.15	0.65
28Nov2012 - 20:06:00	661.97	20.29	0.47
28Nov2012 - 20:07:00	669.96	20.25	0.58
28Nov2012 - 20:08:00	709.32	20.2	0.55
28Nov2012 - 20:09:00	667.48	20.43	0.48
28Nov2012 - 20:10:00	671.51	20.36	0.63

28Nov2012 - 20:11:00	546.38	20.64	0.07	
28Nov2012 - 20:12:00	368.3	20.95	-0.02	
28Nov2012 - 20:13:00	294.31	20.97	0.15	
28Nov2012 - 20:14:00	202.44	20.97	0.05	
28Nov2012 - 20:15:00	182.35	20.99	0.18	
28Nov2012 - 20:16:00	154.82	21.02	0.18	
END DRYER RUN 6A				
AVERAGES	**678.8**	**20.2**	**0.5**	
28Nov2012 - 20:17:00	112.1	20.97	0.07	
28Nov2012 - 20:18:00	100.84	20.98	0.11	
28Nov2012 - 20:19:00	120.39	20.95	0.29	
28Nov2012 - 20:20:00	79.27	20.98	0.11	
28Nov2012 - 20:21:00	78	20.96	0.13	
28Nov2012 - 20:22:00	73.56	20.98	0.14	
28Nov2012 - 20:23:00	55.82	20.96	0.07	
28Nov2012 - 20:24:00	70.1	20.98	0.11	
START DRYER RUN 6B				
28Nov2012 - 20:25:00	111.77	20.97	0.06	
28Nov2012 - 20:26:00	988.55	20.97	0.25	
28Nov2012 - 20:27:00	837.87	19.98	0.39	
28Nov2012 - 20:28:00	917.63	19.78	0.63	
28Nov2012 - 20:29:00	988.7	19.78	0.75	
28Nov2012 - 20:30:00	1051.81	19.74	0.94	
28Nov2012 - 20:31:00	1046.51	19.72	0.68	
28Nov2012 - 20:32:00	1049.99	19.72	0.85	
28Nov2012 - 20:33:00	1037.7	19.74	0.87	
28Nov2012 - 20:34:00	1039.89	19.68	0.98	
28Nov2012 - 20:35:00	972.52	19.67	0.82	
28Nov2012 - 20:36:00	950.79	19.74	0.91	
28Nov2012 - 20:37:00	792.22	19.82	0.43	
28Nov2012 - 20:38:00	791.91	19.94	0.71	
28Nov2012 - 20:39:00	788.22	19.89	0.65	
28Nov2012 - 20:40:00	793.43	19.91	0.69	
28Nov2012 - 20:41:00	786.18	19.91	0.65	
28Nov2012 - 20:42:00	777.64	20.05	0.78	
28Nov2012 - 20:43:00	767.6	20.06	0.79	
28Nov2012 - 20:44:00	764.53	20.07	0.73	
28Nov2012 - 20:45:00	685.38	20.06	0.36	
28Nov2012 - 20:46:00	687.26	20.05	0.42	
28Nov2012 - 20:47:00	747.55	20.04	0.52	
28Nov2012 - 20:48:00	789.51	20.2	0.69	
28Nov2012 - 20:49:00	750.83	20.21	0.5	
28Nov2012 - 20:50:00	793.63	20.25	0.68	
28Nov2012 - 20:51:00	767.91	20.29	0.45	
28Nov2012 - 20:52:00	724.49	20.39	0.4	
28Nov2012 - 20:53:00	560.97	20.93	0.3	
28Nov2012 - 20:54:00	375.42	20.97	0.14	
28Nov2012 - 20:55:00	277.96	20.97	0.12	
28Nov2012 - 20:56:00	245.4	21	0.26	
28Nov2012 - 20:57:00	193.67	21	0.24	
28Nov2012 - 20:58:00	147.78	21.04	0.16	
END DRYER RUN 6B				
AVERAGES	**735.4**	**20.2**	**0.6**	
DAILY AVERAGE	**622.2**			
28Nov2012 - 20:59:00	115.89	20.97	0.11	
28Nov2012 - 21:00:00	88.8	20.97	0.07	
28Nov2012 - 21:01:00	89.08	20.97	0.13	
28Nov2012 - 21:02:00	52.32	20.97	-0.03	
28Nov2012 - 21:03:00	71.29	20.97	0.13	
28Nov2012 - 21:04:00	69.56	17.09	3.66	
28Nov2012 - 21:05:00	11.99	10.03	9.99	
28Nov2012 - 21:06:00	8.51	10.06	10.12	ZERO
28Nov2012 - 21:07:00	90.55	14.45	5.99	
28Nov2012 - 21:08:00	2706.01	20.97	0.32	
28Nov2012 - 21:09:00	2916.33	21.01	0.12	SPAN
28Nov2012 - 21:10:00	2908.18	21.02	0.17	
28Nov2012 - 21:11:00	630.78	7.98	0.05	
28Nov2012 - 21:12:00	74.46	0.02	0.02	
28Nov2012 - 21:13:00	20.35	2.83	0.01	

28Nov2012 - 21:13:56

DRYER OFF AVERAGES 88.6

Dryer Stack-Shop Towels With Strip
G&K Services
Methods 1-4 Summary

Run No.	DS-1A	DS - 1B	DS-2A	DS-2B	DS-3A	DS-3B	DS-4A	DS-4B	DS-5A	DS-5B	DS-6A	DS-6B	
Date:	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	28-Nov-12	
Start Time	11:06	11:50	12:37	13:28	14:24	15:16	16:05	16:58	17:55	18:52	19:43	20:25	
Stop Time	11:39	12:23	13:13	14:04	15:00	15:56	16:40	17:33	18:30	19:25	20:17	20:58	AVERAGES
Barometric Pressure, (inches of mercury)	29.88	29.88	29.88	29.88	29.88	29.88	29.88	29.88	29.88	29.88	29.88	29.88	29.88
Net Sampling Time, (minutes)	33.0	33.0	36.0	36.0	36.0	40.0	35.0	35.0	35.0	33.0	34.0	33.0	34.92
Volume Metered, (cubic feet)	25.308	24.532	25.889	26.263	25.960	26.147	26.258	26.272	25.557	25.808	26.125	24.978	25.76
Average Dry Gas Meter Temperature, (°F)	70	71	72	73	70	72	73	72	72	71	70	70	71.25
Average ΔH, (inches of water)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Average ΔH, (inches of mercury)	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.15
Dry Gas Meter Calibration Factor (Y) Meterbox # 80876	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.98
Dry Gas Meter ΔH @	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.097	2.10
Volume of Gas Collected, (dscf)	24.820	24.005	25.277	25.582	25.424	25.528	25.583	25.638	24.970	25.257	25.579	24.473	25.18
Total Water Collected, (mL)	28.0	17.0	26.0	22.0	25.0	27.0	24.0	27.0	26.0	31.0	25.0	25.0	25.25
Volume of Water Vapor, (scf)	1.320	0.802	1.226	1.037	1.179	1.273	1.132	1.273	1.226	1.462	1.179	1.179	1.19
Moisture, (percent)	5.1	3.2	4.6	3.9	4.4	4.7	4.2	4.7	4.7	5.5	4.4	4.6	4.51
Dry Mole Fraction	0.9495	0.9677	0.9537	0.9610	0.9557	0.9525	0.9576	0.9527	0.9532	0.9453	0.9559	0.9540	0.95
CO_2 Concentration, (percent dry)	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.6	0.5	0.6	0.51
O_2 Concentration, (percent dry)	20.1	20.1	20.1	20.0	20.3	20.3	20.3	20.2	20.2	20.2	20.2	20.2	20.18
CO and N_2, (percent dry)	79.4	79.4	79.4	79.5	79.2	79.3	79.2	79.3	79.3	79.2	79.3	79.2	79.31
Dry Molecular Weight, (lb/lb mole)	28.88	28.88	28.88	28.88	28.89	28.88	28.89	28.89	28.89	28.90	28.89	28.90	28.89
Wet Molecular Weight, (lb/lb mole)	28.33	28.53	28.38	28.46	28.41	28.36	28.43	28.37	28.38	28.31	28.41	28.40	28.40
Excess Air at Stack, (percent)	2332.9	2332.9	2332.9	2024.3	3334.4	3195.8	3334.4	2747.6	2747.6	2849.9	2747.6	2849.9	2735.84
Stack Area, (square inches)	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.4	452.39
Static Pressure, (inches of water)	-0.06	-0.11	-0.10	-0.08	-0.07	-0.12	-0.08	-0.06	-0.08	-0.06	-0.11		-0.08
Stack Pressure, (inches of mercury)	29.88	29.87	29.87	29.87	29.87	29.87	29.87	29.88	29.87	29.88	29.87	29.88	29.87
Average Stack Temperature, (°F)	154	150	152	160	161	161	166	163	161	162	161	161	159.49
Average Sqroot of ΔP	0.5721	0.5645	0.5576	0.5449	0.5503	0.5467	0.5400	0.5496	0.5435	0.5439	0.5504	0.5538	0.55
SDE Average	14.178	13.947	13.796	13.572	13.709	13.626	13.513	13.723	13.543	13.566	13.717	13.803	13.72
Pitot Coefficient	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Stack Gas Velocity, (actual feet per minute - afpm)	2,100	2,059	2,042	2,006	2,028	2,017	1,998	2,031	2,004	2,010	2,029	2,042	2030.49
Stack Flowrate, (actual cubic feet per minute - acfm)	6,597	6,467	6,415	6,302	6,370	6,338	6,277	6,381	6,297	6,315	6,374	6,414	6378.96
Stack Flowrate, (standard cubic feet per minute - scfm)	5,663	5,585	5,524	5,355	5,412	5,378	5,284	5,396	5,346	5,352	5,411	5,444	5429.17
Stack Flowrate, (dry standard cubic feet per minute - dscfm)	5,377	5,405	5,268	5,146	5,172	5,122	5,061	5,141	5,096	5,059	5,172	5,194	5184.42

Shop Towels w/Strip

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester, NH	Dryer	4	4-1 - 4-3	11/28/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP			29.88	—		—		3' SS	—	—

DGM No.	DGM Delta H@	DGM CAL. Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
808262	2.073	980	—	—	—	—	—	0.00	5"	—	—	—

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp (°F)	Probe Temp (°F)	Filter Oven Temp (°F)	Impinger Temp (°F)	Filter Exit or Heated Line Temp (°F)	XAD Trap Temp (°F)	DGM Temp (°F) DGM In	DGM Temp (°F) DGM Out	Sample Train Vacuum (in Hg)	Impinger weights
4-1 DS-1A	1100	0	128.226	—	2.0	—	—	—	43	—	—	70	68	2	
		10	135.4	—		—	—	—	41	—	—	69	72	2	3660
		20	142	—		—	—	—	47	—	—	68	71	2	3632
		30	149	—		—	—	—	47	—	—	68	70	2	
	1139	~~35~~ 30	153.534												
		Post test leak check 0.00 @ 5"													
		Pre test leak check 0.00 @ 5"													
4-2 DS-1B	1150	0	153.758	—	2.0	—	—	—	45	—	—	72	71	2	
		10	161.1	—		—	—	—	43	—	—	70	71	2	3683
		20	168	—		—	—	—	46	—	—	70	71	2	3660
		30	176.0	—		—	—	—	46	—	—	70	71	2	
	1223	33	178.290	—		—	—	—	47	—	—	70	71	2	
		Post Test leak check 0.00 @ 5"													
		Pre test leak check 0.00 @ 5"													
4-3 DS-2A	1237	0	178.421	—	2.0	—	—	—	49	—	—	73	73	2	3709
		10	185.7	—		—	—	—	45	—	—	71	72	2	
		20	196	—		—	—	—	46	—	—	71	72	2	3683
		30	200.5	—		—	—	—	49	—	—	71	72	2	
	1312	35	204.310												
		Post Test leak check 0.00 @ 5"													

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester	Dryer	4	4-4 to 4-6	11/28/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
TCP			29.88	—	—	—	—	3'33	—	—

DGM No.	DGM Delta H@	DGM CAL Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
80876	2.073	.980	—	—	—	—	—			—	—	—

Impinger weights

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp. (°F)	Probe Temp. (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp. (°F) DGM In	DGM Temp. (°F) DGM Out	Sample Train Vacuum (in Hg)	
4-4 DS-2B	1328	0	204.432	—	2.0	—	—	—	48	—	—	73	73	2	3731
		10	211.8	—	↓	—	—	—	45	—	—	72	73	2	3709
		20	219	—	↓	—	—	—	47	—	—	73	74	2	
		30	226.8	—	↓	—	—	—	49	—	—	73	74	2	
	1463	35	230.695							—	—				
		Post test leak check 0.00 @ 5"													
		Pre test leak check 0.00 @ 5"													
4-5 DS-3A	1424	0	231.042	—	2.0	—	—	—	42	—	—	71	69	2	3756 3731
		10	238.6	—	↓	—	—	—	39	—	—	70	70	2	
		20	246.4	—	↓	—	—	—	42	—	—	70	71	2	
		30	253.2	—	↓	—	—	—	43	—	—	70	71	2	
		35	257.002												
		Post test leak check 0.00 @ 5"													
		Pre Test leak check 0.00 @ 5"													
4-6 DS-3B	1513	0	257.109	—	2.0	—	—	—	40	—	—	74	72	2	3783 3756
		10	264.	—	↓	—	—	—	40	—	—	71	72	2	
		20	272	—	↓	—	—	—	42	—	—	71	72	2	
		30	279	—	↓	—	—	—	42	—	—	71	72	2	
		35	283.256							—	—				
		Post Test leak check 0.00 @ 5"													

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp.

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester	Dryer	4	47-4-9	11/28/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP	—		29.88	—		—	—	3' SS	—	—

DGM No.	DGM Delta HG	DGM CAL. Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
80876	2.073	.980	—	—	—	—	—	0.00	5"	—	—	—

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp. (°F)	Probe Temp. (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp. (°F) DGM In	DGM Temp. (°F) DGM Out	Sample Train Vacuum (in Hg)	
4-7	1605	0	283.384	—	2.0	—	—	—	38	—	—	75	74	2	3807
		10	290.	—		—	—	—	40	—	—	72	73	2	
DS-4A		20	298	—		—	—	—	42	—	—	72	70	2	3783
		30	305.7	—		—	—	—	43	—	—	72	70	2	
	1640	35	309.642												
		Post test leak check				0.00 @ 5"									
		Pretest leak check				0.00 @ 6"									
4-8	1658	0	309.782	—	2.0	—	—	—	34	—	—	74	72	2	
		10	317.3	—	2.0	—	—	—	41	—	—	71	73	2	3834
DS-4B		20	324.7	—	2.0	—	—	—	43	—	—	71	73	2	3807
		30	332.2	—	2.0	—	—	—	45	—	—	71	72	2	
	1733	35	336.028												
		Post test leak check				0.00 @ 6"									
		Pre test leak check				0.00 @ 5"									
4-9	1755	0	337.186	—	2.0	—	—	—	36	—	—	73	72	2	
		10	344	—		—	—	—	39	—	—	71	72	2	3860
DS-5A		20	351.8	—		—	—	—	41	—	—	70	72	2	3834
		30	359.0	—		—	—	—	42	—	—	70	72	2	
	1800	35	362.743												
		Post test leak check				0.00 @ 6"									

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp.	Ave. DGM Temp.

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
GHK Manchester	Dryer	4	4-10 - 4-12	11/28/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP	24		29.88	—	—	—	—	3' SS	—	

DGM No.	DGM Delta H@	DGM CAL. Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
80816	2.073	.980	—	—		—	—	0.00	6"	—	—	—

	Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp (°F)	Probe Temp (°F)	Filter Oven Temp (°F)	Impinger Temp (°F)	Filter Exit or Heated Line Temp (°F)	XAD Trap Temp (°F)	DGM Temp (°F) DGM In	DGM Temp (°F) DGM Out	Sample Train Vacuum (in Hg)	
4-10		1852	0	362.860	—	2.0	—	—	—	36	—	—	71	71	2	3674
			10	370.	—		—	—	—	38	—	—	70	71	2	3643
DS-5B			20	377	—		—	—	—	41	—	—	70	71	2	
			30	385.4	—		—	—	—	42	—	—	70	71	2	
		1925	34	388.668												
			Post test leak check 0.00 @ 6"													
			Pre test leak check 0.00 @ 6"													
4-11		1941	0	388.781	—	2.0	—	—	—	37	—	—	71	71	2	3699
			10	396.1	—		—	—	—	39	—	—	70	71	2	3674
(DS-6A)			20	403	—		—	—	—	40	—	—	69	71	2	
			30	410.9	—		—	—	—	41	—	—	69	70	2	
		2016	35	414.906												
			Post test leak check 0.00 @ 6"													
			Pre test leak check 0.00 @ 6"													
4-12		2025	0	415.041	—	2.0	—	—	—	34	—	—	71	72	2	3724
			10	422	—		—	—	—	39	—	—	69	70	2	3699
(DS-6B)			20	429.5	—		—	—	—	40	—	—	69	70	2	
			30	437.1	—		—	—	—	41	—	—	69	70	2	
		2053	3	440.019												
			Post test leak check 0.00 @ 5"													

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp

TRC

Method 2 Data Sheet

Dryer 1A

Plant	G+K	Date	11-28-2012
Location	Dryer	Time	11:10

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.	°F
% Moisture		$\%H_2O$	Stack O_2	%
Static Pressure, P_g	-.06	$"H_2O$	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.27		153			
	2	.31		154			
	3	.35		153			
	4	.41		154			
	5	.33		154			
	6	.31		153			
	7	.28		155			
	8	.28		154			
B	1	.28		153			
	2	.31		153			
	3	.35		154			
	4	.37		155			
	5	.38		155			
	6	.39		155			
	7	.36		156			
	8	.28		155			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right] Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 1B

Plant	G+K	Date	11-28-2012
Location	DRYER	Time	11:54

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.	°F
% Moisture		%H_2O	Stack O_2	%
Static Pressure, P_g	-.11	"H_2O	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		150			
	2	.29		151			
	3	.38		150			
	4	.41		149			
	5	.33		150			
	6	.30		151			
	7	.29		152			
	8	.28		151			
B	1	.28		150			
	2	.29		151			
	3	.30		150			
	4	.33		150			
	5	.36		152			
	6	.37		150			
	7	.36		150			
	8	.27		150			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right] Q_a$ _____ DSCFM

Dryer 2A

Method 2 Data Sheet

Plant	G+K	Date	11-28-2012
Location	DRYER	Time	12:42

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.83	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.10	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.26		150			
	2	.28		151			
	3	.34		150			
	4	.36		151			
	5	.32		152			
	6	.30		152			
	7	.28		152			
	8	.27		153			
B	1	.27		152			
	2	.28		153			
	3	.33		153			
	4	.36		153			
	5	.36		154			
	6	.36		153			
	7	.32		153			
	8	.30		153			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST\,avg}}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right] Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 2B

Plant	G+K	Date	11-28-2012
Location	DRYER	Time	13:33

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.	°F
% Moisture		$\%H_2O$	Stack O_2	%
Static Pressure, P_g	-.08	$"H_2O$	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		159			
	2	.29		159			
	3	.35		159			
	4	.36		160			
	5	.29		159			
	6	.29		159			
	7	.27		160			
	8	.28		160			
B	1	.27		160			
	2	.28		162			
	3	.29		160			
	4	.30		162			
	5	.32		161			
	6	.32		162			
	7	.29		162			
	8	.28		162			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}\,avg \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Dryer 3A

Method 2 Data Sheet

Plant	GTK	Date	11-28-2012
Location	DRYER	Time	14:36

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.99	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.07	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_s (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		161			
	2	.29		160			
	3	.30		161			
	4	.32		161			
	5	.33		161			
	6	.31		161			
	7	.28		160			
	8	.27		160			
B	1	.28		161			
	2	.30		160			
	3	.32		161			
	4	.33		161			
	5	.32		161			
	6	.33		161			
	7	.31		159			
	8	.28		160			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Dryer 3B

Method 2 Data Sheet

Plant	GPK	Date	11-28-2012
Location	DRYER	Time	1535

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.12	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		159			
	2	.29		160			
	3	.32		160			
	4	.36		160			
	5	.34		161			
	6	.30		161			
	7	.28		161			
	8	.28		166			
B	1	.26		161			
	2	.27		161			
	3	.30		163			
	4	.31		164			
	5	.32		164			
	6	.31		163			
	7	.29		161			
	8	.28		161			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\ avg\ \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 4A

Plant	G+K	Date	11-28-2012
Location	DRYER	Time	16:12

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.83	"Hg	Meter Temp.	°F
% Moisture		$\%H_2O$	Stack O_2	%
Static Pressure, P_g	-.06	$"H_2O$	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.27		160			
	2	.28		161			
	3	.33		162			
	4	.35		163			
	5	.34		164			
	6	.32		165			
	7	.28		164			
	8	.28		166			
B	1	.28		166			
	2	.29		166			
	3	.30		165			
	4	.32		163			
	5	.32		165			
	6	.30		163			
	7	.29		161			
	8	.29		161			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 4B

Plant	GHK	Date	11-28-2012
Location	DRYER	Time	17:12

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.	°F
% Moisture		%H_2O	Stack O_2	%
Static Pressure, P_g	-.08	"H_2O	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}$ cosθ	
A	1	.28		166			
	2	.28		167			
	3	.30		166			
	4	.31		167			
	5	.32		166			
	6	.31		166			
	7	.27		167			
	8	.27		166			
B	1	.27		166			
	2	.27		166			
	3	.29		166			
	4	.31		167			
	5	.32		166			
	6	.30		166			
	7	.29		166			
	8	.28		166			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}\,avg \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Dryer 5A

Method 2 Data Sheet

Plant	GTK	Date	11-28-2012
Location	DRYER	Time	18:02

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.08	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		158			
	2	.29		159			
	3	.31		161			
	4	.33		161			
	5	.32		162			
	6	.31		162			
	7	.29		160			
	8	.29		160			
B	1	.27		161			
	2	.28		160			
	3	.29		161			
	4	.30		160			
	5	.30		163			
	6	.31		164			
	7	.28		162			
	8	.28		161			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right] Q_a$ _____ DSCFM

Dryer 5B

Method 2 Data Sheet

Plant	G+K	Date	11-28-2012
Location	Dryer	Time	19:00

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.06	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_s (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.27		161			
	2	.28		162			
	3	.33		163			
	4	.33		163			
	5	.31		163			
	6	.30		162			
	7	.29		163			
	8	.27		164			
B	1	.28		163			
	2	.28		162			
	3	.31		162			
	4	.32		162			
	5	.33		161			
	6	.29		161			
	7	.28		161			
	8	.28		160			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Dryer 6A

Method 2 Data Sheet

Plant	G+K	Date	11-28-2012
Location	Dryer	Time	

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b		"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.11	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_s (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		159			
	2	.29		159			
	3	.34		160			
	4	.35		161			
	5	.31		161			
	6	.29		163			
	7	.27		163			
	8	.26		164			
B	1	.27		161			
	2	.27		161			
	3	.32		162			
	4	.34		163			
	5	.34		162			
	6	.35		160			
	7	.30		159			
	8	.28		159			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet Dryer 6B

Plant	G+K	Date	11-28-2012
Location	Dryer	Time	2028

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.88	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.07	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		159			
	2	.28		159			
	3	.33		160			
	4	.35		161			
	5	.34		162			
	6	.30		162			
	7	.27		164			
	8	.26		162			
B	1	.27		160			
	2	.29		160			
	3	.31		161			
	4	.32		163			
	5	.33		162			
	6	.35		163			
	7	.35		161			
	8	.29		161			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\ avg\ \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Stop Tanks w/ Strip

EVACUATED CANISTER SAMPLING FORM

Client: G+K	Run Number: TO-15-Dryer-1B
Location: Dryer Exhaust	Operator: SB
Process: 002719/SC01543	Sample ID:
Canister Number:	Flow Controller ID:
Canister Leak Check Date: 11/28/12	Comments: used in combination w/ moisture knockout

	Canister Vacuum		Barometric Pressure (mmHg)	Ambient Temperature (°C)
	Manometer (mmHg)	Gauge (inHg)		
Pre-test		30.07	29.88	42
		10.75	29.88	31

Pretest Leak Rate	mmHg/10 minutes
	0.00
	0.00

Elapsed Time	Clock Time	Gauge Vacuum (inHg)	~~Flow Meter Setting (ml/min)~~ 8hr	Comments
0	11:06	27.5		
34/0	11:40/11:50	26.5		
33/0	12:23/12:37	25.5		
35/0	13:12/13:28	24		
35/0	14:03/14:24	22.5		
35/0	14:59/15:13	21		
35/0	15:47/16:05	19.5		
35/0	16:40/16:58	18.5		
35/0	17:33/17:55	17		
35/0	18:30/18:52	15.5		
35/0	19:29/19:41	14		
35/0	20:16/20:25	13		
35 End	21:00	11		

TRC

Cylinder Gas	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero ID			
Zero Expiration			
Low ID	XC03311B		
Low Expiration	42000		
Low Concentration	2922		
Mid ID	CC349917	CC408666	CC408666
Mid Expiration	7/7/2014	7/5/2014	7/5/2014
Mid Concentration	4940	9.93	10.02
High ID	CC351430	CC349923	CC349923
High Expiration	10/21/2014	11/9/2014	11/9/2014
High Concentration	8936	21.97	17.69

Calibration Error	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero Response	0.39	0.01	0.01
Zero Error (%)	0	0.03	0.08
Low Response	2922.71		
Low Error (%)	0.02		
Mid Response	4939.71	9.94	10.03
Mid Error (%)	-0.01	0.02	0.03
High Response	8936.31	21.97	17.69
High Error (%)	0	0.01	0.02

Initial Bias	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
Zero Response	0	0.01	0.01
Zero Bias (%)	0	0.03	-0.05
Span Concentration	2922	9.93	10.02
Span Response	0	9.94	10.02
Span Bias (%)	0	0.01	-0.03

Print Towels

CEM CALIBRATION DATA
EPA Method 25A

Firm:	G&K	Analyzer:	California Analytical
Location:	Manchester, NH	Span Value (S):	8936
Operator	W Deveau	Analyzer Range:	30000
Sample Location:	Dryer Stack		
Date:	29-Nov-12		

TOTAL HYDROCARBONS

PRE-TEST Calibration Error Check:

	Cylinder ID	Cylinder Gas Conc. (Ca)	Analyzer Response (C)	Slope (m)	Predicted Response (pr)	Calibration Error (<5%) (ce)
Zero, C_O		0.0	0.39			
C_{low} (25-35% span)	xc0033311b	2922.0	2922.7	1.0000	2922.0	0.0%
C_{mid} (45-55% span)	cc349917	4940.0	4939.7	1.0000	4940.0	0.0%
C_{high} (80-90% span)	cc351430	8936.0	8936.3	1.0000	8935.9	0.0%

Calibration Drift Check:

Run No:		1	2	3	4	AVG
Time						
Initial Zero	C_{OI}	0.4	9.4			
Initial Span	C_{MI}	2922.7	2921.9			
Final Zero	C_{OF}	9.4	4.2			
Final Span	C_{MF}	2921.9	3060.7			
Calibration Drift (< 3%)	CD_O	-0.1%	0.1%	0.0%	0.0%	
Calibration Drift (< 3%)	CD_M	0.0%	-1.6%			
THC Conc. (ppm, wet)	C_{THCavg}					

Nomenclature

C_{high}	Span gas analyzer response
C_O	Zero gas analyzer response
C_a	Cylinder gas value
C_{OI}	Initial calibration zero response
C_{OF}	Final calibration zero response
C_{MI}	Initial calibration upscale response
C_{MF}	Final calibration upscale response
CDo	Zero calibration drift
CDm	Upscale calibration drift
m	Slope
pr	Predicted response
ce	Calibration error
C	Analyzer response
S	Span
C_{NMHC}	Non-methane hydrocarbon concentration
C_{THC}	Total hydrocarbon concentration
C_{CH4}	Methane concentration

Calculations

$$m = (C_{high} - C_O) / C_a$$

$$pr = m \times C_a$$

$$ce = (C - pr) / C_a \times 100$$

$$CD_O = (C_{OI} - C_{OF}) / S$$

$$C_{NMHC} = C_{THC} - C_{CH4}$$

$$ER = C_{avg} \quad MW \quad 2.5962e\text{-}9 \quad Q \quad 60$$

where,

MW = molecular weight of methane, 16.04
2.5962e-9 = conversion from ppm to pounds per standard cubic feet.
60 = conversion from minutes to hour
Q = flow in units of standard cubic feet per minute

h:\stack\connecticut\projects\2012\g&k - manchester, nh\compliance testing\field data\nov 29 - print towels\[g&k - dryer emissions - print towels - 11-29-2012.xls]calculations 12/13/112 13:03

Log Averages	THC (ppm) Dryer	O2 (%) Dryer	CO2 (%) Dryer
29Nov2012 - 07:16:00	47.39	21.5	0.08
29Nov2012 - 07:17:00	73.09	20.93	0.21
29Nov2012 - 07:18:00	51.77	20.86	0.1
29Nov2012 - 07:19:00	54.45	20.88	0.12
29Nov2012 - 07:20:00	49.27	20.87	0.09
29Nov2012 - 07:21:00	37.88	20.86	0.03
29Nov2012 - 07:22:00	81.46	20.89	0.27
29Nov2012 - 07:23:00	77.72	20.86	0.25
29Nov2012 - 07:24:00	55.27	20.85	0.13
29Nov2012 - 07:25:00	37.9	20.86	0.03
29Nov2012 - 07:26:00	36.78	20.87	0.04
29Nov2012 - 07:27:00	43.39	20.88	0.07
29Nov2012 - 07:28:00	53.49	20.88	0.12
29Nov2012 - 07:29:00	42.96	20.88	0.07
29Nov2012 - 07:30:00	49.64	20.88	0.1
29Nov2012 - 07:31:00	37.39	20.88	0.04
29Nov2012 - 07:32:00	60.49	20.88	0.16
29Nov2012 - 07:33:00	14.99	20.86	-0.07
29Nov2012 - 07:34:00	29.94	20.86	-0.02
29Nov2012 - 07:35:00	62.28	20.95	0.15
29Nov2012 - 07:36:00	50.52	20.87	0.05
29Nov2012 - 07:37:00	50.03	20.85	0.08
29Nov2012 - 07:38:00	62.95	20.9	0.12
29Nov2012 - 07:39:00	57.38	20.88	0.07
29Nov2012 - 07:40:00	63.09	20.89	0.11
29Nov2012 - 07:41:00	67.62	20.88	0.14
29Nov2012 - 07:42:00	61.99	20.9	0.11
29Nov2012 - 07:43:00	52.79	20.88	0.04
29Nov2012 - 07:44:00	86.99	20.88	0.23
29Nov2012 - 07:45:00	66.19	20.9	0.11
29Nov2012 - 07:46:00	56.07	20.91	0.06
29Nov2012 - 07:47:00	18.82	20.83	-0.13
29Nov2012 - 07:48:00	76.86	20.93	0.19
29Nov2012 - 07:49:00	66.56	20.93	0.12
29Nov2012 - 07:50:00	49.35	20.94	0.03
29Nov2012 - 07:51:00	57.01	20.89	0.04
29Nov2012 - 07:52:00	72.64	20.9	0.1
29Nov2012 - 07:53:00	75.59	20.91	0.09
29Nov2012 - 07:54:00	84.84	20.92	0.15
29Nov2012 - 07:55:00	79.76	20.92	0.14
29Nov2012 - 07:56:00	66.98	20.91	0.04
29Nov2012 - 07:57:00	72.84	20.92	0.14
29Nov2012 - 07:58:00	50.38	20.9	0.04
29Nov2012 - 07:59:00	63.3	20.93	0.1
29Nov2012 - 08:00:00	53.18	20.92	0.05
29Nov2012 - 08:01:00	77.84	20.96	0.21
29Nov2012 - 08:02:00	22.91	20.89	-0.11
29Nov2012 - 08:03:00	56.99	20.95	0.11
29Nov2012 - 08:04:00	72.6	20.94	0.17
29Nov2012 - 08:05:00	65.02	20.96	0.05
29Nov2012 - 08:06:00	111.83	20.96	0.27
29Nov2012 - 08:07:00	56.99	20.93	-0.09
29Nov2012 - 08:08:00	42.63	20.88	-0.16
29Nov2012 - 08:09:00	65.27	20.97	-0.01
29Nov2012 - 08:10:00	114.01	20.99	0.26
29Nov2012 - 08:11:00	82.14	20.97	0.14
29Nov2012 - 08:12:00	81.03	20.99	0.11
29Nov2012 - 08:13:00	77.14	20.98	0.05
29Nov2012 - 08:14:00	96.66	20.98	0.11
29Nov2012 - 08:15:00	89.72	21	0.12
29Nov2012 - 08:16:00	72.33	21.01	0.02
29Nov2012 - 08:17:00	101.6	20.97	0.12
29Nov2012 - 08:18:00	65.14	20.95	-0.1
29Nov2012 - 08:19:00	64.53	20.93	-0.12
29Nov2012 - 08:20:00	91.44	21	0.09
29Nov2012 - 08:21:00	115.5	20.98	0.27
29Nov2012 - 08:22:00	109.54	20.98	0.28
29Nov2012 - 08:23:00	77.1	21.01	0.1
29Nov2012 - 08:24:00	82.12	21	0.13
29Nov2012 - 08:25:00	75.03	21	0.12
29Nov2012 - 08:26:00	52.63	21.02	0.03
29Nov2012 - 08:27:00	77.22	21	0.15
29Nov2012 - 08:28:00	68.38	21.01	0.09
29Nov2012 - 08:29:00	50.95	21	-0.02
29Nov2012 - 08:30:00	78.06	21	0.14
29Nov2012 - 08:31:00	63.3	21.02	0.09
29Nov2012 - 08:32:00	43.11	21.02	0

Dryer Exhaust Summaries

	Time	Ave THC Conc	MW	(SCFM)	lb/hr
(1A)	1138 - 1215	1712.5	12	5410	17.28
(1B)	1231 - 1307	3742.4	12	5279	36.84
(3A)	1520 - 1556	3079.6	12	5327	30.59
(3B)	1608 - 1646	4261.9	12	5410	43.00
(2A)	1322 - 1358	5754.7	12	5393	57.87
(2B)	1415 - 1453	5459.1	12	5397	54.94
(1A/B, 3A/B)	Average	3203.3	12	5369	32.07
(1A/B, 2A/B, 3A/B)	Average	4006.8	12	5369	40.12
	Dryer Off				
	Daily Average	176.7	12	100	0.03

29Nov2012 - 08:33:00	33.23	20.95	-0.1
29Nov2012 - 08:34:00	56.44	20.99	-0.01
29Nov2012 - 08:35:00	105.59	21.03	0.23
29Nov2012 - 08:36:00	84.13	21.01	0.12
29Nov2012 - 08:37:00	80.65	21	0.11
29Nov2012 - 08:38:00	74.56	21	0.09
29Nov2012 - 08:39:00	81.93	21	0.14
29Nov2012 - 08:40:00	67.82	21.02	0.08
29Nov2012 - 08:41:00	80.79	21.02	0.15
29Nov2012 - 08:42:00	31.56	20.93	-0.15
29Nov2012 - 08:43:00	82.28	21.02	0.1
29Nov2012 - 08:44:00	88.49	21.01	0.11
29Nov2012 - 08:45:00	83.14	21.01	0.09
29Nov2012 - 08:46:00	82.75	21.01	0.09
29Nov2012 - 08:47:00	84.54	21.02	0.13
29Nov2012 - 08:48:00	77.84	21.02	0.1
29Nov2012 - 08:49:00	69.03	21	0.04
29Nov2012 - 08:50:00	82.12	21.02	0.12
29Nov2012 - 08:51:00	71.82	21.02	0.06
29Nov2012 - 08:52:00	86.71	21	0.13
29Nov2012 - 08:53:00	84.76	21.02	0.11
29Nov2012 - 08:54:00	78.88	21.02	0.09
29Nov2012 - 08:55:00	75.16	21.02	0.08
29Nov2012 - 08:56:00	74.4	21.01	0.07
29Nov2012 - 08:57:00	85.93	21.03	0.13
29Nov2012 - 08:58:00	77.53	21.03	0.09
29Nov2012 - 08:59:00	70.53	21.02	0.07
29Nov2012 - 09:00:00	90.6	21.06	0.2
29Nov2012 - 09:01:00	83.74	21	0.15
29Nov2012 - 09:02:00	80.71	21	0.12
29Nov2012 - 09:03:00	95.96	21.06	0.2
29Nov2012 - 09:04:00	42.27	20.98	-0.08
29Nov2012 - 09:05:00	94.24	21.02	0.2
29Nov2012 - 09:06:00	76.38	21.01	0.09
29Nov2012 - 09:07:00	89.94	21.04	0.17
29Nov2012 - 09:08:00	87.06	21.04	0.16
29Nov2012 - 09:09:00	67.21	21.07	0.06
29Nov2012 - 09:10:00	56.89	21.03	-0.01
29Nov2012 - 09:11:00	70.06	21.02	0.06
29Nov2012 - 09:12:00	43.35	20.99	-0.1
29Nov2012 - 09:13:00	73.13	21.02	0.07
29Nov2012 - 09:14:00	74.3	21.01	0.08
29Nov2012 - 09:15:00	77.39	21.04	0.1
29Nov2012 - 09:16:00	75.89	21.03	0.1
29Nov2012 - 09:17:00	74.01	21.03	0.09
29Nov2012 - 09:18:00	105.01	21.05	0.26
29Nov2012 - 09:19:00	97.75	21.06	0.13
29Nov2012 - 09:20:00	101.45	21.01	0.11
29Nov2012 - 09:21:00	87.79	21.02	0.09
29Nov2012 - 09:22:00	82.71	20.99	0.09
29Nov2012 - 09:23:00	75.46	21	0.09
29Nov2012 - 09:24:00	86.11	21.08	0.17
29Nov2012 - 09:25:00	59.65	21.01	0.04
29Nov2012 - 09:26:00	68.25	21.07	0.1
29Nov2012 - 09:27:00	37.07	20.99	-0.1
29Nov2012 - 09:28:00	73.76	21.01	0.09
29Nov2012 - 09:29:00	71.22	21.04	0.06
29Nov2012 - 09:30:00	81.53	21	0.09
29Nov2012 - 09:31:00	86.71	21.03	0.11
29Nov2012 - 09:32:00	80.03	21.03	0.07
29Nov2012 - 09:33:00	86.69	21.03	0.1
29Nov2012 - 09:34:00	84.17	21.04	0.1
29Nov2012 - 09:35:00	97.85	21.06	0.17
29Nov2012 - 09:36:00	110.28	21.07	0.24
29Nov2012 - 09:37:00	103.32	21.05	0.2
29Nov2012 - 09:38:00	83.74	20.99	0.08
29Nov2012 - 09:39:00	91.54	21.02	0.11
29Nov2012 - 09:40:00	116.83	21.02	0.25
29Nov2012 - 09:41:00	118.8	21.01	0.26
29Nov2012 - 09:42:00	91.89	21.02	0.12
29Nov2012 - 09:43:00	91.29	21.01	0.11
29Nov2012 - 09:44:00	83.08	20.99	0.06
29Nov2012 - 09:45:00	98.61	20.94	0.14
29Nov2012 - 09:46:00	102.97	20.98	0.16
29Nov2012 - 09:47:00	125.97	20.98	0.29
29Nov2012 - 09:48:00	85.25	21.03	0.06
29Nov2012 - 09:49:00	82.02	20.98	0.03
29Nov2012 - 09:50:00	57.01	20.96	-0.1
29Nov2012 - 09:51:00	67.21	20.99	-0.05
29Nov2012 - 09:52:00	91.23	21.03	0.08

29Nov2012 - 09:53:00	109.89	20.99	0.16
29Nov2012 - 09:54:00	114.58	21.02	0.18
29Nov2012 - 09:55:00	99.53	21.01	0.11
29Nov2012 - 09:56:00	118.02	20.96	0.19
29Nov2012 - 09:57:00	105.65	20.99	0.11
29Nov2012 - 09:58:00	123.49	21	0.2
29Nov2012 - 09:59:00	113.19	21.01	0.14
29Nov2012 - 10:00:00	93.34	20.99	0.04
29Nov2012 - 10:01:00	137.58	20.99	0.29
29Nov2012 - 10:02:00	125.97	21	0.23
29Nov2012 - 10:03:00	106.71	21.01	0.14
29Nov2012 - 10:04:00	109.66	21.02	0.15
29Nov2012 - 10:05:00	104.22	21	0.11
29Nov2012 - 10:06:00	118.84	21.07	0.2
29Nov2012 - 10:07:00	88.67	21.04	0.05
29Nov2012 - 10:08:00	124.18	21.07	0.26
29Nov2012 - 10:09:00	98.03	21.04	0.12
29Nov2012 - 10:10:00	96.82	21.07	0.12
29Nov2012 - 10:11:00	95.94	21.07	0.12
29Nov2012 - 10:12:00	78.25	21.17	0.02
29Nov2012 - 10:13:00	105.2	21.43	0.18
29Nov2012 - 10:14:00	101.1	21.89	0.16
29Nov2012 - 10:15:00	95.29	21.97	0.13
29Nov2012 - 10:16:00	105.53	21.66	0.19
29Nov2012 - 10:17:00	123.45	21.53	0.24
29Nov2012 - 10:18:00	139.81	21.64	0.15
29Nov2012 - 10:19:00	165.06	21.67	0.16
29Nov2012 - 10:20:00	178.86	21.65	0.26
29Nov2012 - 10:21:00	120.87	21.54	-0.02
29Nov2012 - 10:22:00	119.7	21.57	0.01
29Nov2012 - 10:23:00	108.97	21.52	-0.05
29Nov2012 - 10:24:00	157.57	21.59	0.22
29Nov2012 - 10:25:00	137.47	21.31	0.1
29Nov2012 - 10:26:00	164.79	21.58	0.26
29Nov2012 - 10:27:00	134.53	21.58	0.07
29Nov2012 - 10:28:00	147.16	21.56	0.12
29Nov2012 - 10:29:00	171.65	21.59	0.22
29Nov2012 - 10:30:00	149.66	21.62	0.07
29Nov2012 - 10:31:00	170.69	21.66	0.18
29Nov2012 - 10:32:00	164	21.59	0.15
29Nov2012 - 10:33:00	127.83	21.63	-0.08
29Nov2012 - 10:34:00	163.59	21.65	0.13
29Nov2012 - 10:35:00	182.75	21.38	0.29
29Nov2012 - 10:36:00	145.2	21.35	0.09
29Nov2012 - 10:37:00	157.69	21.32	0.15
29Nov2012 - 10:38:00	156.77	21.4	0.13
29Nov2012 - 10:39:00	158.42	21.45	0.13
29Nov2012 - 10:40:00	169.46	21.43	0.17
29Nov2012 - 10:41:00	167.39	21.39	0.16
29Nov2012 - 10:42:00	166.25	21.49	0.15
29Nov2012 - 10:43:00	161.31	21.42	0.11
29Nov2012 - 10:44:00	150.07	21.38	0.02
29Nov2012 - 10:45:00	156.21	21.41	0.07
29Nov2012 - 10:46:00	152.77	21.5	0.02
29Nov2012 - 10:47:00	140.71	21.43	-0.07
29Nov2012 - 10:48:00	163.38	21.39	0.13
29Nov2012 - 10:49:00	159.16	21.4	0.15
29Nov2012 - 10:50:00	153.76	21.41	0.14
29Nov2012 - 10:51:00	157.18	21.32	0.19
29Nov2012 - 10:52:00	136.8	21.33	0.07
29Nov2012 - 10:53:00	137.52	21.31	0.12
29Nov2012 - 10:54:00	138.21	21.32	0.14
29Nov2012 - 10:55:00	131.41	21.32	0.1
29Nov2012 - 10:56:00	134.94	21.29	0.13
29Nov2012 - 10:57:00	135.14	21.5	0.14
29Nov2012 - 10:58:00	121.19	21.25	0.07
29Nov2012 - 10:59:00	124.66	21.17	0.09
29Nov2012 - 11:00:00	136.37	21.18	0.15
29Nov2012 - 11:01:00	144.27	21.3	0.21
29Nov2012 - 11:02:00	147.57	21.15	0.23
29Nov2012 - 11:03:00	111.36	21.22	-0.03
29Nov2012 - 11:04:00	142.29	21.24	0.06
29Nov2012 - 11:05:00	167.27	21.37	0.11
29Nov2012 - 11:06:00	166.06	21.37	0.02
29Nov2012 - 11:07:00	209.21	21.34	0.2
29Nov2012 - 11:08:00	200.08	21.39	0.09
29Nov2012 - 11:09:00	227.75	21.23	0.15
29Nov2012 - 11:10:00	258.75	21.41	0.29
29Nov2012 - 11:11:00	231.35	21.62	0.12
29Nov2012 - 11:12:00	261.89	21.42	0.27

29Nov2012 - 11:13:00	226.6	21.53	0.05
29Nov2012 - 11:14:00	248.86	21.57	0.17
29Nov2012 - 11:15:00	230.45	21.49	0.02
29Nov2012 - 11:16:00	241.06	21.47	0.07
29Nov2012 - 11:17:00	253.72	21.37	0.16
29Nov2012 - 11:18:00	291.87	21.3	0.27
29Nov2012 - 11:19:00	303.58	21.24	0.27
29Nov2012 - 11:20:00	295.49	21.32	0.16
29Nov2012 - 11:21:00	321.05	21.14	0.29
29Nov2012 - 11:22:00	284.25	21.22	0.15
29Nov2012 - 11:23:00	280.17	21.25	0.15
29Nov2012 - 11:24:00	273.99	21.26	0.13
29Nov2012 - 11:25:00	280.89	21.23	0.15
29Nov2012 - 11:26:00	313.84	21.11	0.28
29Nov2012 - 11:27:00	339.4	21.16	0.26
29Nov2012 - 11:28:00	346.08	21.26	0.05
29Nov2012 - 11:29:00	392.59	21.18	0.2
29Nov2012 - 11:30:00	386.09	21.17	0.19
29Nov2012 - 11:31:00	385.01	21.17	0.18
29Nov2012 - 11:32:00	394.22	21.25	0.17
29Nov2012 - 11:33:00	404.5	21.25	0.2
29Nov2012 - 11:34:00	390.44	21.25	0.12
29Nov2012 - 11:35:00	392.24	21.19	0.16
29Nov2012 - 11:36:00	609.24	21.13	0.2
29Nov2012 - 11:37:00	1362.81	21.1	0.14
START DRYER LOAD 1A			
29Nov2012 - 11:38:00	1936.44	20.95	0.28
29Nov2012 - 11:39:00	3490.96	20.98	0.15
29Nov2012 - 11:40:00	5700.08	20.37	0.64
29Nov2012 - 11:41:00	8774.36	19.91	0.88
29Nov2012 - 11:42:00	8974.34	19.9	0.79
29Nov2012 - 11:43:00	7107.86	19.85	0.76
29Nov2012 - 11:44:00	5242.04	19.81	0.79
29Nov2012 - 11:45:00	3906.63	19.74	0.84
29Nov2012 - 11:46:00	2971.44	19.72	0.92
29Nov2012 - 11:47:00	2370.82	19.65	0.82
29Nov2012 - 11:48:00	1968.96	19.83	0.69
29Nov2012 - 11:49:00	1503.03	20.03	0.65
29Nov2012 - 11:50:00	1452.33	19.83	0.71
29Nov2012 - 11:51:00	1095.78	20.17	0.59
29Nov2012 - 11:52:00	995.03	20.12	0.58
29Nov2012 - 11:53:00	898.75	20.07	0.51
29Nov2012 - 11:54:00	715.99	20.39	0.53
29Nov2012 - 11:55:00	685.36	20.07	0.54
29Nov2012 - 11:56:00	546.55	20.55	0.47
29Nov2012 - 11:57:00	530	20.05	0.62
29Nov2012 - 11:58:00	406.06	20.69	0.25
29Nov2012 - 11:59:00	371.04	20.19	0.53
29Nov2012 - 12:00:00	340.36	20.62	0.32
29Nov2012 - 12:01:00	226.13	20.46	0.15
29Nov2012 - 12:02:00	269.65	20.26	0.31
29Nov2012 - 12:03:00	230.39	20.82	0.24
29Nov2012 - 12:04:00	232.13	20.04	0.63
29Nov2012 - 12:05:00	237.27	20.74	0.34
29Nov2012 - 12:06:00	215.44	20.33	0.59
29Nov2012 - 12:07:00	195.17	20.4	0.26
29Nov2012 - 12:08:00	201.21	20.67	0.26
29Nov2012 - 12:09:00	217.16	20.63	0.29
29Nov2012 - 12:10:00	210.98	20.9	0.08
29Nov2012 - 12:11:00	201.02	20.91	0.07
29Nov2012 - 12:12:00	206.12	20.87	0.22
29Nov2012 - 12:13:00	199.38	20.87	0.29
29Nov2012 - 12:14:00	129.77	20.89	-0.02
29Nov2012 - 12:15:00	120.03	20.89	-0.03
END DRYER LOAD 1A			
AVERAGES	**1712.5**	**20.3**	**0.5**
29Nov2012 - 12:16:00	136.82	20.91	0.14
29Nov2012 - 12:17:00	138.5	20.92	0.14
29Nov2012 - 12:18:00	124.88	20.89	0.02
29Nov2012 - 12:19:00	165.02	20.9	0.16
29Nov2012 - 12:20:00	153.14	20.92	-0.01
29Nov2012 - 12:21:00	202.13	20.9	0.16
29Nov2012 - 12:22:00	243.58	20.9	0.15
29Nov2012 - 12:23:00	297.81	20.91	0.16
29Nov2012 - 12:24:00	323.45	20.91	0.14
29Nov2012 - 12:25:00	344.64	20.91	0.13

29Nov2012 - 12:26:00	318.25	20.93	0.04	
29Nov2012 - 12:27:00	342.51	20.98	0.16	
29Nov2012 - 12:28:00	619.11	20.92	0.16	
29Nov2012 - 12:29:00	1422.24	20.93	0.16	
29Nov2012 - 12:30:00	2094	20.94	0.1	
START DRYER LOAD 1B				
29Nov2012 - 12:31:00	4355.16	20.99	0.03	
29Nov2012 - 12:32:00	8318.84	20.21	0.59	
29Nov2012 - 12:33:00	13383.73	19.88	0.87	
29Nov2012 - 12:34:00	15690.56	19.83	0.93	
29Nov2012 - 12:35:00	15550.74	19.73	0.95	
29Nov2012 - 12:36:00	13748.32	19.65	0.96	
29Nov2012 - 12:37:00	11114.05	19.7	0.84	
29Nov2012 - 12:38:00	9100.98	19.68	0.83	
29Nov2012 - 12:39:00	7699.63	19.64	0.76	
29Nov2012 - 12:40:00	5366.47	19.96	0.63	
29Nov2012 - 12:41:00	4436.22	20.04	0.53	
29Nov2012 - 12:42:00	3920.9	19.79	0.58	
29Nov2012 - 12:43:00	2754.65	20.32	0.31	
29Nov2012 - 12:44:00	2482.25	20.02	0.69	
29Nov2012 - 12:45:00	2284.59	20.2	0.48	
29Nov2012 - 12:46:00	2173.4	20.23	0.53	
29Nov2012 - 12:47:00	2189.64	19.99	0.76	
29Nov2012 - 12:48:00	1730.54	20.44	0.5	
29Nov2012 - 12:49:00	1408.65	20.68	0.5	
29Nov2012 - 12:50:00	1322.14	20.73	0.36	
29Nov2012 - 12:51:00	1089.86	20.96	0.39	
29Nov2012 - 12:52:00	1038.46	20.69	0.52	
29Nov2012 - 12:53:00	883.78	20.82	0.36	
29Nov2012 - 12:54:00	709.2	20.95	0.35	
29Nov2012 - 12:55:00	586.98	21.06	0.34	
29Nov2012 - 12:56:00	533.24	20.9	0.47	
29Nov2012 - 12:57:00	497.5	21.22	0.35	
29Nov2012 - 12:58:00	472.66	20.74	0.41	
29Nov2012 - 12:59:00	463.83	20.83	0.36	
29Nov2012 - 13:00:00	442.82	21.06	0.25	
29Nov2012 - 13:01:00	439.42	21.19	0.12	
29Nov2012 - 13:02:00	446.83	21.21	0.16	
29Nov2012 - 13:03:00	441.92	21.11	0.21	
29Nov2012 - 13:04:00	395.31	21.11	0.16	
29Nov2012 - 13:05:00	356.46	21.11	0.16	
29Nov2012 - 13:06:00	350.48	21.07	0.28	
29Nov2012 - 13:07:00	287.89	21.12	0.03	
ENDED DRYER LOAD 1B				
AVERAGES	**3742.4**	**20.5**	**0.5**	
29Nov2012 - 13:08:00	343.56	21.09	0.18	
29Nov2012 - 13:09:00	341.39	21.03	0.11	
29Nov2012 - 13:10:00	329.96	21.1	0.04	
29Nov2012 - 13:11:00	2121.86	20.86	0.41	
29Nov2012 - 13:12:00	2919.18	21.06	0.23	
29Nov2012 - 13:13:00	2921.94	21.12	0.07	SPAN
29Nov2012 - 13:14:00	2216.76	20.9	0.53	
29Nov2012 - 13:15:00	26.07	10.07	9.77	
29Nov2012 - 13:16:00	9.38	9.99	10.02	ZERO
29Nov2012 - 13:17:00	115	12.95	7.39	
29Nov2012 - 13:18:00	246.69	21.53	0.42	
29Nov2012 - 13:19:00	280.48	21.59	0.34	
29Nov2012 - 13:20:00	246.87	21.71	0.15	
29Nov2012 - 13:21:00	270.59	21.39	0.13	
START DRYER LOAD 2A				
29Nov2012 - 13:22:00	561.46	21.29	0.08	
29Nov2012 - 13:23:00	551.12	21.17	0.3	
29Nov2012 - 13:24:00	6010.21	21.07	0.11	
29Nov2012 - 13:25:00	11521.41	20.19	0.74	
29Nov2012 - 13:26:00	18174.84	20.03	0.8	
29Nov2012 - 13:27:00	20784.85	20.04	0.81	
29Nov2012 - 13:28:00	20653.72	19.96	0.95	
29Nov2012 - 13:29:00	19848.31	20.07	0.75	
29Nov2012 - 13:30:00	18445.09	19.99	0.7	
29Nov2012 - 13:31:00	16519.88	19.98	0.84	
29Nov2012 - 13:32:00	14231.95	20.14	0.73	
29Nov2012 - 13:33:00	11686.68	20.14	0.76	
29Nov2012 - 13:34:00	9196.68	20.04	0.81	
29Nov2012 - 13:35:00	6431.9	20.44	0.59	

29Nov2012 - 13:36:00	4929.83	20.23	0.59
29Nov2012 - 13:37:00	4184.98	20.43	0.49
29Nov2012 - 13:38:00	3861.31	20.24	0.76
29Nov2012 - 13:39:00	3496.67	20.52	0.59
29Nov2012 - 13:40:00	3358.42	20.33	0.51
29Nov2012 - 13:41:00	2711.01	20.48	0.43
29Nov2012 - 13:42:00	2207.42	20.72	0.53
29Nov2012 - 13:43:00	1965.07	20.45	0.49
29Nov2012 - 13:44:00	1577.46	20.54	0.34
29Nov2012 - 13:45:00	1384.91	20.41	0.4
29Nov2012 - 13:46:00	1222.94	20.38	0.43
29Nov2012 - 13:47:00	1038.73	20.48	0.33
29Nov2012 - 13:48:00	953.35	20.31	0.42
29Nov2012 - 13:49:00	822.94	20.45	0.35
29Nov2012 - 13:50:00	680.56	20.44	0.34
29Nov2012 - 13:51:00	581.59	20.42	0.38
29Nov2012 - 13:52:00	498.83	20.74	0.14
29Nov2012 - 13:53:00	502.64	20.84	0.12
29Nov2012 - 13:54:00	552.94	20.86	0.11
29Nov2012 - 13:55:00	528.01	20.85	0.1
29Nov2012 - 13:56:00	465.68	20.85	0.06
29Nov2012 - 13:57:00	418.14	20.86	0.11
29Nov2012 - 13:58:00	362.24	20.84	0.05
END DRYER RUN 2A			
AVERAGES	**5754.7**	**20.5**	**0.5**
29Nov2012 - 13:59:00	342.84	20.86	0.12
29Nov2012 - 14:00:00	322.63	20.85	0.12
29Nov2012 - 14:01:00	296.44	20.84	0.09
29Nov2012 - 14:02:00	272.37	20.84	0.05
29Nov2012 - 14:03:00	296.56	20.85	0.25
29Nov2012 - 14:04:00	300.8	20.84	0.27
29Nov2012 - 14:05:00	255.91	20.85	0.03
29Nov2012 - 14:06:00	292.46	20.83	0.28
29Nov2012 - 14:07:00	276.75	20.82	0.17
29Nov2012 - 14:08:00	283.37	20.86	0.22
29Nov2012 - 14:09:00	271.49	20.83	0.12
29Nov2012 - 14:10:00	279.33	20.83	0.15
29Nov2012 - 14:11:00	750.63	20.87	0.06
29Nov2012 - 14:12:00	1841.52	20.86	0.1
29Nov2012 - 14:13:00	2187.37	20.86	0.15
29Nov2012 - 14:14:00	2014.69	20.87	0.09
START DRYER RUN 2B			
29Nov2012 - 14:15:00	1957.55	20.86	0.13
29Nov2012 - 14:16:00	5594.34	20.87	0.12
29Nov2012 - 14:17:00	10981.73	20.04	0.55
29Nov2012 - 14:18:00	16805.86	19.85	0.88
29Nov2012 - 14:19:00	20403.78	19.83	0.64
29Nov2012 - 14:20:00	21104.77	19.81	0.79
29Nov2012 - 14:21:00	20806.7	19.77	0.83
29Nov2012 - 14:22:00	19698.58	19.73	0.84
29Nov2012 - 14:23:00	18063.67	19.66	0.79
29Nov2012 - 14:24:00	14692.94	19.61	0.67
29Nov2012 - 14:25:00	10440.63	19.97	0.53
29Nov2012 - 14:26:00	7061.86	19.99	0.63
29Nov2012 - 14:27:00	5438.09	20.13	0.56
29Nov2012 - 14:28:00	5020.31	20.06	0.63
29Nov2012 - 14:29:00	4682.5	20.04	0.52
29Nov2012 - 14:30:00	4231.35	20.02	0.64
29Nov2012 - 14:31:00	3307.63	20.22	0.52
29Nov2012 - 14:32:00	2967	20.14	0.54
29Nov2012 - 14:33:00	2442.09	20.22	0.23
29Nov2012 - 14:34:00	2120.08	20.3	0.45
29Nov2012 - 14:35:00	1858.9	20.32	0.4
29Nov2012 - 14:36:00	1587.47	20.37	0.35
29Nov2012 - 14:37:00	1366.74	20.38	0.4
29Nov2012 - 14:38:00	1203.97	20.38	0.35
29Nov2012 - 14:39:00	1040.63	20.39	0.33
29Nov2012 - 14:40:00	916	20.41	0.4
29Nov2012 - 14:41:00	775.51	20.39	0.34
29Nov2012 - 14:42:00	691.26	20.39	0.32
29Nov2012 - 14:43:00	667.91	20.39	0.34
29Nov2012 - 14:44:00	673.25	20.39	0.37
29Nov2012 - 14:45:00	729.12	20.42	0.36
29Nov2012 - 14:46:00	716.1	20.82	0.11
29Nov2012 - 14:47:00	628	20.83	0.1
29Nov2012 - 14:48:00	516.61	20.83	0.11

29Nov2012 - 14:49:00	422.61	20.78	0.13
29Nov2012 - 14:50:00	353.04	20.83	0.01
29Nov2012 - 14:51:00	333.07	20.81	0.12
29Nov2012 - 14:52:00	304.85	20.83	0.08
29Nov2012 - 14:53:00	299.88	20.82	0.14
END DRYER RUN 2B			
AVERAGES	**5459.1**	**20.3**	**0.4**
29Nov2012 - 14:54:00	272.68	20.83	0.08
29Nov2012 - 14:55:00	269.36	20.84	0.1
29Nov2012 - 14:56:00	276.88	20.81	0.14
29Nov2012 - 14:57:00	262.38	20.84	0.12
29Nov2012 - 14:58:00	271.55	20.82	0.13
29Nov2012 - 14:59:00	267.13	20.82	0.08
29Nov2012 - 15:00:00	265.1	20.8	0.11
29Nov2012 - 15:01:00	275.96	20.85	0.23
29Nov2012 - 15:02:00	246.45	20.82	0.1
29Nov2012 - 15:03:00	249.56	20.83	0.12
29Nov2012 - 15:04:00	255.11	20.83	0.16
29Nov2012 - 15:05:00	233.03	20.83	-0.02
29Nov2012 - 15:06:00	286.44	20.8	0.27
29Nov2012 - 15:07:00	273.21	20.81	0.22
29Nov2012 - 15:08:00	249.56	20.8	0.1
29Nov2012 - 15:09:00	238.15	20.83	0.06
29Nov2012 - 15:10:00	262.81	20.83	0.16
29Nov2012 - 15:11:00	222.01	20.79	-0.09
29Nov2012 - 15:12:00	283.43	20.82	0.24
29Nov2012 - 15:13:00	250.27	20.86	0.09
29Nov2012 - 15:14:00	237.58	20.84	0.07
29Nov2012 - 15:15:00	279.62	20.82	0.26
29Nov2012 - 15:16:00	281.89	20.82	0.28
29Nov2012 - 15:17:00	248.53	20.84	0.12
29Nov2012 - 15:18:00	249.29	20.84	0.11
29Nov2012 - 15:19:00	234.32	20.82	0.01
START DRYER RUN 3A			
29Nov2012 - 15:20:00	416.46	20.85	0.16
29Nov2012 - 15:21:00	1067.28	20.84	0.07
29Nov2012 - 15:22:00	2371.34	20.86	0.13
29Nov2012 - 15:23:00	4686.97	20.37	0.4
29Nov2012 - 15:24:00	7856.01	19.79	0.69
29Nov2012 - 15:25:00	9532.93	19.72	0.58
29Nov2012 - 15:26:00	9539.71	19.73	0.9
29Nov2012 - 15:27:00	8824.92	19.68	0.7
29Nov2012 - 15:28:00	7791.36	19.62	0.81
29Nov2012 - 15:29:00	7348.25	19.6	0.84
29Nov2012 - 15:30:00	6882.67	19.59	0.79
29Nov2012 - 15:31:00	5794.18	19.6	0.79
29Nov2012 - 15:32:00	4444.8	19.9	0.69
29Nov2012 - 15:33:00	3635.52	20	0.45
29Nov2012 - 15:34:00	3042.28	20.04	0.61
29Nov2012 - 15:35:00	2644.2	20.02	0.48
29Nov2012 - 15:36:00	2601.63	20.03	0.72
29Nov2012 - 15:37:00	2270.64	20.11	0.42
29Nov2012 - 15:38:00	2176.64	20.08	0.52
29Nov2012 - 15:39:00	2162.86	20.13	0.48
29Nov2012 - 15:40:00	1935.64	20.17	0.52
29Nov2012 - 15:41:00	1839.88	20.12	0.22
29Nov2012 - 15:42:00	1853.86	20.21	0.54
29Nov2012 - 15:43:00	1704.32	20.31	0.41
29Nov2012 - 15:44:00	1542.33	20.29	0.4
29Nov2012 - 15:45:00	1407.5	20.41	0.41
29Nov2012 - 15:46:00	1265.84	20.38	0.32
29Nov2012 - 15:47:00	1136.43	20.39	0.51
29Nov2012 - 15:48:00	1052.57	20.37	0.33
29Nov2012 - 15:49:00	1004.1	20.36	0.54
29Nov2012 - 15:50:00	905.67	20.44	0.46
29Nov2012 - 15:51:00	807.76	20.5	0.29
29Nov2012 - 15:52:00	640.53	20.83	0.1
29Nov2012 - 15:53:00	518.1	20.82	0.03
29Nov2012 - 15:54:00	481.22	20.86	0.14
29Nov2012 - 15:55:00	387.92	20.77	-0.11
29Nov2012 - 15:56:00	370.04	20.81	0.04
END DRYER RUN 3A			
AVERAGES	**3079.6**	**20.2**	**0.4**
29Nov2012 - 15:57:00	339.93	20.83	0.08

29Nov2012 - 15:58:00	323.49	20.82	0.15	
29Nov2012 - 15:59:00	297.29	20.82	0.05	
29Nov2012 - 16:00:00	312.65	20.82	0.16	
29Nov2012 - 16:01:00	286.91	20.82	0.12	
29Nov2012 - 16:02:00	251.97	20.83	0	
29Nov2012 - 16:03:00	294.2	20.81	0.26	
29Nov2012 - 16:04:00	287.49	20.83	-0.03	
29Nov2012 - 16:05:00	417.55	20.83	0.11	
29Nov2012 - 16:06:00	410.81	20.83	0.16	
29Nov2012 - 16:07:00	1019.15	20.85	0.17	
START DRYER RUN 3B				
29Nov2012 - 16:08:00	1127.26	20.84	-0.01	
29Nov2012 - 16:09:00	2448.69	20.85	0.13	
29Nov2012 - 16:10:00	4733.19	20.27	0.45	
29Nov2012 - 16:11:00	8339.73	19.78	0.63	
29Nov2012 - 16:12:00	10827.91	19.75	0.8	
29Nov2012 - 16:13:00	11726.43	19.75	0.82	
29Nov2012 - 16:14:00	11928.15	19.74	0.79	
29Nov2012 - 16:15:00	11417.42	19.62	0.96	
29Nov2012 - 16:16:00	10767.93	19.65	0.87	
29Nov2012 - 16:17:00	10007.12	19.61	0.84	
29Nov2012 - 16:18:00	9330.92	19.65	0.71	
29Nov2012 - 16:19:00	7965.37	19.9	0.52	
29Nov2012 - 16:20:00	6811.32	19.87	0.64	
29Nov2012 - 16:21:00	5600.16	20.08	0.55	
29Nov2012 - 16:22:00	4965.53	20.07	0.72	
29Nov2012 - 16:23:00	4427.7	20.18	0.5	
29Nov2012 - 16:24:00	4098.21	20.14	0.35	
29Nov2012 - 16:25:00	3700.24	20.26	0.31	
29Nov2012 - 16:26:00	3488.36	20.27	0.56	
29Nov2012 - 16:27:00	3217.38	20.31	0.45	
29Nov2012 - 16:28:00	3051.6	20.33	0.42	
29Nov2012 - 16:29:00	2842.26	20.4	0.44	
29Nov2012 - 16:30:00	2657.74	20.36	0.21	
29Nov2012 - 16:31:00	2457.74	20.43	0.51	
29Nov2012 - 16:32:00	2192.63	20.43	0.51	
29Nov2012 - 16:33:00	1904.47	20.42	0.33	
29Nov2012 - 16:34:00	1750.28	20.36	0.27	
29Nov2012 - 16:35:00	1687.39	20.43	0.46	
29Nov2012 - 16:36:00	1594.72	20.41	0.26	
29Nov2012 - 16:37:00	1540.29	20.44	0.49	
29Nov2012 - 16:38:00	1473.34	20.39	0.52	
29Nov2012 - 16:39:00	1292.67	20.58	0.18	
29Nov2012 - 16:40:00	1085.62	20.83	0.09	
29Nov2012 - 16:41:00	877.41	20.84	0.15	
29Nov2012 - 16:42:00	726.48	20.81	0.09	
29Nov2012 - 16:43:00	653.18	20.84	0.26	
29Nov2012 - 16:44:00	577.06	20.84	0.27	
29Nov2012 - 16:45:00	484.46	20.83	0.09	
29Nov2012 - 16:46:00	436.72	20.84	0.05	
END DRYER RUN 3B				
AVERAGES	**4261.9**	**20.3**	**0.4**	
DAILY AVERAGE	**3203.3**			DRYER LOADS 1A/1B AND 3A/3B ONLY
DAILY AVERAGE	**4006.8**			DRYER LOADS 1A/1B, 2A/2B, AND 3A/3B
29Nov2012 - 16:47:00	424.35	20.82	0.21	
29Nov2012 - 16:48:00	410.09	20.84	0.27	
29Nov2012 - 16:49:00	377.04	20.87	0.25	
29Nov2012 - 16:50:00	335.8	20.8	0.13	
29Nov2012 - 16:51:00	316.42	20.85	0.09	
29Nov2012 - 16:52:00	299.81	20.83	0.08	
29Nov2012 - 16:53:00	316.03	20.86	0.22	
29Nov2012 - 16:54:00	292.03	20.78	0.14	
29Nov2012 - 16:55:00	815.69	20.36	0.31	
29Nov2012 - 16:56:00	3060.69	20.88	0.2	SPAN
29Nov2012 - 16:57:00	2970.95	20.88	-0.15	
29Nov2012 - 16:58:00	2961.77	20.96	0.17	
29Nov2012 - 16:59:00	2915.2	20.89	0	
29Nov2012 - 17:00:00	1794.65	20.21	0.92	
29Nov2012 - 17:01:00	24.11	9.86	9.83	
29Nov2012 - 17:02:00	4.22	9.63	9.84	ZERO
29Nov2012 - 17:03:00	2.25	11.11	8.42	
29Nov2012 - 17:04:00	209.9	20.7	0.17	
29Nov2012 - 17:05:00	220.72	20.82	0.13	

29Nov2012 - 17:06:00	215.56	20.8	0.12
29Nov2012 - 17:07:00	188.35	4.92	1.08
29Nov2012 - 17:08:00	190.09	-0.27	-0.14
29Nov2012 - 17:09:00	202.84	-0.01	0
29Nov2012 - 17:10:00	187.57	4.33	0
29Nov2012 - 17:11:00	213.78	20.73	0.18
29Nov2012 - 17:12:00	203.66	20.78	0.16
29Nov2012 - 17:13:00	181.26	20.78	0.06
29Nov2012 - 17:14:00	184	20.77	0.12
29Nov2012 - 17:15:00	89.04	20.66	0.17
29Nov2012 - 17:16:00	61.91	20.69	0.22
29Nov2012 - 17:17:00	26.6	20.86	0.06
29Nov2012 - 17:18:00	42.37	20.81	0.14
29Nov2012 - 17:19:00	41.94	20.8	0.14
29Nov2012 - 17:20:00	30.98	20.83	0.09
29Nov2012 - 17:21:00	45.5	20.79	0.17
29Nov2012 - 17:22:00	65.84	20.83	0.27
29Nov2012 - 17:23:00	45.87	20.88	0.17
29Nov2012 - 17:24:00	-13.76	20.76	-0.14
29Nov2012 - 17:25:00	21.6	20.83	0.04
29Nov2012 - 17:26:00	13.53	20.79	-0.01
29Nov2012 - 17:27:00	41.16	20.83	0.15
29Nov2012 - 17:28:00	42.18	20.84	0.15
29Nov2012 - 17:29:00	40.67	20.86	0.15
29Nov2012 - 17:30:00	9.54	20.84	-0.02
29Nov2012 - 17:31:00	48.49	20.84	0.18
29Nov2012 - 17:32:00	34.83	20.87	0.11
29Nov2012 - 17:33:00	28.16	20.88	0.09
29Nov2012 - 17:34:00	39.75	20.87	0.15
29Nov2012 - 17:35:00	23.88	20.85	0.06
29Nov2012 - 17:36:00	27.91	20.86	0.08
29Nov2012 - 17:37:00	33.46	20.86	0.11
29Nov2012 - 17:38:00	43.78	20.85	0.17
29Nov2012 - 17:39:00	38.79	20.86	0.15
29Nov2012 - 17:40:00	44.31	20.85	0.18
29Nov2012 - 17:41:00	26.96	20.85	0.14
29Nov2012 - 17:42:00	32.44	20.87	0.12
29Nov2012 - 17:43:00	26.64	20.86	0.09
29Nov2012 - 17:43:49	22.61	20.87	0.07

DRYER OFF AVERAGE **176.7**

Dryer Stack-Print Towels With Strip
G&K Services
Methods 1-4 Summary

Run No.	DP-1A	DP - 1B	DP-2A	DP-2B	DP-3A	DP-3B	
Date:	29-Nov-12	29-Nov-12	29-Nov-12	29-Nov-12	29-Nov-12	29-Nov-12	
Start Time	11:35	12:30	13:22	14:15	15:21	16:08	
Stop Time	12:15	13:07	13:58	14:53	15:57	16:46	AVERAGES
Barometric Pressure, (inches of mercury)	29.96	29.96	29.96	29.96	29.96	29.96	29.96
Net Sampling Time, (minutes)	40.0	37.0	36.0	38.0	36.0	36.0	37.17
Volume Metered, (cubic feet)	25.096	25.779	25.596	24.805	30.021	26.579	26.31
Average Dry Gas Meter Temperature, (°F)	73	72	73	74	74	75	73.46
Average ΔH, (inches of water)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Average ΔH, (inches of mercury)	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.15
Dry Gas Meter Calibration Factor (Y) Meterbox # 80876	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.98
Dry Gas Meter ΔH @	2.097	2.097	2.097	2.097	2.097	2.097	2.10
Volume of Gas Collected, (dscf)	24.521	25.218	25.022	24.186	29.251	25.886	25.68
Total Water Collected, (mL)	18.0	21.0	30.0	19.0	27.0	27.0	23.67
Volume of Water Vapor, (scf)	0.849	0.990	1.415	0.896	1.273	1.273	1.12
Moisture, (percent)	3.3	3.8	5.4	3.6	4.2	4.7	4.15
Dry Mole Fraction	0.9665	0.9622	0.9465	0.9643	0.9583	0.9531	0.96
CO_2 Concentration, (percent dry)	0.5	0.5	0.5	0.4	0.4	0.4	0.45
O_2 Concentration, (percent dry)	20.3	20.5	20.5	20.3	20.2	20.3	20.35
CO and N_2, (percent dry)	79.2	79.0	79.0	79.3	79.4	79.3	79.20
Dry Molecular Weight, (lb/lb mole)	28.89	28.90	28.90	28.88	28.87	28.88	28.89
Wet Molecular Weight, (lb/lb mole)	28.53	28.49	28.32	28.49	28.42	28.37	28.43
Excess Air at Stack, (percent)	3334.4	5758.4	5758.4	3195.8	2652.3	3195.8	3982.55
Stack Area, (square inches)	452.4	452.4	452.4	452.4	452.4	452.4	452.39
Static Pressure, (inches of water)	-0.11	-0.10	-0.11	-0.08	-0.11	-0.10	-0.10
Stack Pressure, (inches of mercury)	29.95	29.95	29.95	29.95	29.95	29.95	29.95
Average Stack Temperature, (°F)	162	163	163	162	159	161	161.60
Average Sqroot of ΔP	0.5512	0.5378	0.5476	0.5496	0.5403	0.5493	0.55
SDE Average	13.747	13.421	13.663	13.710	13.440	13.691	13.61
Pitot Coefficient	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Stack Gas Velocity, (actual feet per minute - afpm)	2,027	1,980	2,022	2,023	1,985	2,024	2009.95
Stack Flowrate, (actual cubic feet per minute - acfm)	6,367	6,220	6,351	6,354	6,237	6,359	6314.44
Stack Flowrate, (standard cubic feet per minute - scfm)	5,410	5,279	5,393	5,397	5,327	5,410	5369.33
Stack Flowrate, (dry standard cubic feet per minute - dscfm)	5,229	5,080	5,104	5,204	5,105	5,157	5146.50

Print Tools

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester	Dryer	4	4-1 - 4-3	11/29/[illegible]	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP	—	—	29.96	—				3' [illegible]	—	

DGM No.	DGM Delta H@	DGM CAL. Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
20876	2.073	.980	—	—	—	—	—	0.00	5	—	—	—

Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp. (°F)	Probe Temp. (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp (°F) DGM In	DGM Temp (°F) DGM Out	Sample Train Vacuum (in Hg)	
4-1 DP-1A	11:38	0	440.210	—	2.0	—	—	—	52	—	—	75	75	2	F3645 I3627
		10	447.8	—	2.0	—	—	—	45	—	—	72	73	2	
		20	455.1	—	2.0	—	—	—	47	—	—	71	73	2	
		30	462.4	—	2.0	—	—	—	46	—	—	71	73	2	
	12:13	35	465.306												
		Post Test leak check					0.00 @ 5								
		Pre Test leak check					0.00 @ 5								
4-2 DP-1B	1230	0	465.435	—	2.0	—	—	—	49	—	—	73	73	2	I3574 F3595
		10	472	—	↓	—	—	—	46	—	—	71	73	2	
		20	480	—		—	—	—	47	—	—	71	73	2	
		30	487	—		—	—	—	47	—	—	71	73	2	
		35	491.214												
		Post Test leak check				0.00 @ 5"									
		Pre Test leak check				0.00 @ 5"									
4-3 DP-2A	1322	0	491.349	—	2.0	—	—	—	46	—	—	73	73	2	I ~~3595~~ 3632 F3662
		10	498	—	↓	—	—	—	44	—	—	72	73	2	
		20	506.2	—		—	—	—	47	—	—	72	73	2	
		30	513.5	—		—	—	—	47	—	—	72	73	2	
	13:57	35	516.945												
		Post Test leak check				0.00 @ 5"									

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp.	Ave. DGM Temp

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester	Dryer	4	4-4-4-6	11/29/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP			29.96	—	—	—	—	B SS	—	—

DGM No.	DGM Delta H@	DGM CAL. Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
808760	2.073	.980	—	—	—	—	—	0.00	5"	—	—	—

Point Number	Clock Time (24 hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp. (°F)	Probe Temp. (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp (°F) DGM In	DGM Temp (°F) DGM Out	Sample Train Vacuum (in Hg)	
4-4 DP-2B	1415	0	517.307	—	2.0	—	—	—	48	—	—	75	74	2	F3595
		10	523.6	—	2.0	—	—	—	45	—	—	74	74	2	F3614
		20	531.	—	2.0	—	—	—	46	—	—	74	74	2	
		30	538.4	—	2.0	—	—	—	44	—	—	73	74	2	
	1450	35	542.112												
	Post test leak check					0.00 @ 5"									
	Pretest leak check					0.00 @ 5"									
4-5 DP-3A	1521	0	542.241	—	2.0	—	—	—	41	—	—	76	75	2	3689
		10	551	—		—	—	—	43	—	—	73	75	2	3662
		20	559.4	—		—	—	—	44	—	—	73	75	2	3662
		30	567.9	—		—	—	—	44	—	—	73	75	2	RP
		35	572.262												
	Post test leak check					0.00 @ 5"									
	Pretest leak check					0.00 @ 5"									
4-6 DP-3B	1600	0	572.421	—	2.0	—	—	—	43	—	—	76	75	2	3534
		10	580.0	—	2.0	—	—	—	43	—	—	75	75	2	3507
		20	587.7	—	2.0	—	—	—	42	—	—	73	75	2	
		30	595.3	—	2.0	—	—	—	42	—	—	73	75	2	
		35	599.000												
	Post test leak check					0.00 @ 6"									

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp.	Ave. DGM Temp.

TRC

ISOKINETIC SAMPLING DATA

Plant Name, City, State, Project No.	Sampling Location	Method No.	Run Number	Test Date	Notes
G+K Manchester	Dryer	4	4-7 - 4-8	11/29/12	

Operators	Stack I.D. (in.)	Ambient T. (°F)	Barometric (in. Hg)	Static Pressure	Assumed Moist. %	O2 (%)	CO2 (%)	Probe Length and Liner Type	Filter Type	Filter Number
RP	—	—	29.96	—	—	—	—	3' SS	—	

DGM No.	DGM Delta H@	DGM CAL Y	Pitot No.	Pitot Tube Cp	Pitot Leak Check	Nozzle Number	Nozzle Diameter	Leak Check (Initial) cfm	Leak Check (Initial) (in Hg)	Leak Check (Final) cfm	Leak Check (Final) (in Hg)	K Factor
80876	2.073	0.980	—	—	—	—	—			—	—	—

	Point Number	Clock Time (24-hour)	Elapsed Test Time (min)	Dry Gas Meter Reading (Cubic Feet)	ΔP Velocity (in H2O)	ΔH Orifice (in H2O)	Stack Temp. (°F)	Probe Temp. (°F)	Filter Oven Temp. (°F)	Impinger Temp. (°F)	Filter Exit or Heated Line Temp. (°F)	XAD Trap Temp. (°F)	DGM Temp. (°F) DGM In	DGM Temp. (°F) DGM Out	Sample Train Vacuum (in Hg)
4-7 DP-4A			0												
			10												
			20												
			30												
			Post test leak check												
			Pre test leak check												
4-8 DP-4B			0												
			10												
			20												
			30												
			Post test leak check												

Total Run Time	DGM Volume	Ave. SQRT ΔP	Average ΔH	Stack Temp	Ave. DGM Temp.

TRC

Method 2 Data Sheet Print Dryer 1A

Plant	G+K	Date	11-29-2012
Location	DRYER	Time	11:44

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.96	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.11	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.26		155			
	2	.30		156			
	3	.34		160			
	4	.36		162			
	5	.38		165			
	6	.34		165			
	7	.30		166			
	8	.26		163			
B	1	.25		160			
	2	.29		162			
	3	.31		162			
	4	.32		161			
	5	.31		163			
	6	.33		163			
	7	.28		164			
	8	.25		165			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Print Dryer 1B

Plant	GHK	Date	11 29 2012
Location	Dryer	Time	12:39

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.96	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.10	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.28		163			
	2	.28		163			
	3	.30		163			
	4	.31		164			
	5	.30		164			
	6	.29		162			
	7	.28		162			
	8	.28		163			
B	1	.27		160			
	2	.28		162			
	3	.29		162			
	4	.31		164			
	5	.30		163			
	6	.30		163			
	7	.29		163			
	8	.27		163			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Print Dryer 2A

Plant	G+K	Date	11-29-2012
Location	Dryer	Time	13:27

Stack Diameter	24	"	Area, A	ft^2
Barometric Pressure, P_b	24.96	"Hg	Meter Temp.	°F
% Moisture		%H_2O	Stack O_2	%
Static Pressure, P_g	-.11	"H_2O	Stack CO_2	%
Pitot Coefficient, C_p	.84		MW (wet)	lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.27		161			
	2	.28		161			
	3	.35		162			
	4	.36		163			
	5	.33		163			
	6	.31		163			
	7	.28		163			
	8	.27		164			
B	1	.27		163			
	2	.28		163			
	3	.28		164			
	4	.32		164			
	5	.33		162			
	6	.32		162			
	7	.29		161			
	8	.27		161			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 2B

Plant	G+K	Date	11-29-2012
Location	Dryer	Time	14:19

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.89	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.08	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.27		161			
	2	.29		162			
	3	.35		162			
	4	.34		162			
	5	.33		162			
	6	.31		162			
	7	.28		161			
	8	.27		162			
B	1	.28		162			
	2	.30		163			
	3	.31		164			
	4	.32		164			
	5	.32		164			
	6	.31		162			
	7	.28		162			
	8	.28		162			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $Vs = (85.49)\ Cp\ \sqrt{\Delta P}\,avg\ \sqrt{\frac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Qa = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Qa$ _____ DSCFM

Method 2 Data Sheet

Dryer BA

Plant	G+K	Date	11-29-2012
Location	Dryer	Time	15:28

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.46	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.11	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.26		155			
	2	.30		156			
	3	.34		157			
	4	.34		157			
	5	.31		159			
	6	.29		160			
	7	.28		161			
	8	.26		161			
B	1	.26		159			
	2	.28		160			
	3	.30		161			
	4	.29		160			
	5	.30		158			
	6	.32		159			
	7	.29		159			
	8	.26		159			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}\,avg\ \sqrt{\dfrac{T_{ST}\,avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\dfrac{528°R}{T_{ST}}\right]\left[\dfrac{P_S}{29.92}\right]\left[\dfrac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Method 2 Data Sheet

Dryer 3B

Plant	G+K	Date	11-29-2012
Location	Dryer	Time	16:12

Stack Diameter	24	"	Area, A		ft^2
Barometric Pressure, P_b	29.96	"Hg	Meter Temp.		°F
% Moisture		$\%H_2O$	Stack O_2		%
Static Pressure, P_g	-.10	$"H_2O$	Stack CO_2		%
Pitot Coefficient, C_p	.84		MW (wet)		lb/lb-mole

Port	Point	ΔP	$\sqrt{\Delta P}$	T_S (°F)	+ θ clockwise - θ counter-clockwise	$\sqrt{\Delta P}\cos\theta$	
A	1	.26		158			
	2	.30		160			
	3	.33		161			
	4	.36		161			
	5	.35		162			
	6	.33		162			
	7	.29		162			
	8	.27		161			
B	1	.27		161			
	2	.27		162			
	3	.28		163			
	4	.30		163			
	5	.33		162			
	6	.34		161			
	7	.29		161			
	8	.27		160			
	Average						

Average Absolute Temp. _____

Absolute Gas Temperature, $T_{ST} = T_S + 460°$

Absolute Gas Pressure, $P_S = P_b + P_g/13.6$ _____ "Hg

Gas Velocity, $V_s = (85.49)\ C_p\ \sqrt{\Delta P}_{avg} \sqrt{\frac{T_{ST}\ avg}{P_S\ M_W}}$ _____ ft/sec

Actual Gas Flowrate, $Q_a = (V_s)\ (60)\ (A)$ _____ ACFM

Standard Gas Flowrate, $Q_{std} = \left[\frac{528°R}{T_{ST}}\right]\left[\frac{P_S}{29.92}\right]\left[\frac{100 - \%H_2O}{100}\right]Q_a$ _____ DSCFM

Print Towels

EVACUATED CANISTER SAMPLING FORM

Client: G+K	Run Number: TO-15-Dryer-2B
Location: Dryer Exhaust	Operator: EG, SB
Process:	Sample ID:
Canister Number: 11/29/12	Flow Controller ID:
Canister Leak Check Date: 022229 / SC00825*	Comments: used in combination w/ moisture knockout

	Canister Vacuum		Barometric Pressure	Ambient Temperature
	Manometer (mmHg)	Gauge (inHg)	(mmHg)	(°C) °F
Pre-test		29.58	29.96	40
Post		21.75	29.96	44

Pretest Leak Rate	mmHg/10 minutes
	0.00
Post	0.00

Elapsed Time	Clock Time	Gauge Vacuum (inHg)	~~Flow Meter Setting (ml/min)~~	Comments
0	11:38	27	8hr flow controller	
35/0	12:13 / 12:30	25.5		
35/0	13:05 / 13:22	24.5		
35/0	15:57 / 16:08	22.5		
35/	1643	21		
	* summa sampled during drying of wash loads produced from Washer 1 only			

TRC

APPENDIX F

ANALYTICAL DATA

LABORATORY REPORT

December 19, 2012

Raymond Potter
TRC Environmental Corporation
21 Griffin Road North
Windsor, CT 06095

RE: G&K / 193461.0000.0000

Dear Raymond:

Enclosed are the results of the samples submitted to our laboratory on December 4, 2012. The samples were sent out for partial analysis to our Kelso facility. Please fine their report attached. For your reference, these analyses have been assigned our service request number P1204977.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 362188; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA01527Z012-Z; Los Angeles Department of Building and Safety, Approval No: TA00001. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Kate Aguilera
Project Manager

Client: TRC Environmental Corporation
Project: G&K / 193461.0000.0000
Service Request No: P1204977

CASE NARRATIVE

The samples were received intact under chain of custody on December 4, 2012 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The summa canister samples were analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

Volatile Organic Compound Analysis

The liquid samples were analyzed for volatile organic compounds in accordance with EPA Method 8260C. The samples were sent to ALS Environmental in Kelso, WA for analysis. Please see there attached complete report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

DETAIL SUMMARY REPORT

Client: TRC Environmental Corporation
Project ID: G&K / 193461.0000.0000

Service Request: P1204977

Date Received: 12/4/2012
Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	TO-15 - VOC Cans	8260C - VOC Unp	Screen VOA GCMS - SCREEN_VOAGCMS
TO-15-Room Air-1	P1204977-001	Air	11/28/2012	00:00	SC00081	-5.37	3.50	X		
TO-15-Room Air-2	P1204977-002	Air	11/28/2012	00:00	SC01500	-4.39	3.51	X		
TO-15-Washer-1-1	P1204977-003	Air	11/28/2012	00:00	SC01492	-4.25	3.51	X		
TO-15-Washer-2-1	P1204977-004	Air	11/28/2012	00:00	SC00922	-5.78	3.52	X		
TO-15-Dryer-1A	P1204977-005	Water	11/28/2012	00:00					X	X
TO-15-Dryer-1B	P1204977-006	Air	11/28/2012	00:00	SC01543	-4.04	3.58	X		
TO-15-Room Air-3	P1204977-007	Air	11/29/2012	00:00	SC00160	-5.38	3.51	X		
TO-15-Room Air-4	P1204977-008	Air	11/29/2012	00:00	SC01539	-10.88	3.52	X		
TO-15-Washer-1-2	P1204977-009	Air	11/29/2012	00:00	SC01598	-3.82	3.66	X		
TO-15-Washer-2-2	P1204977-010	Air	11/29/2012	00:00	SC00836	-9.69	3.56	X		
TO-15-Dryer-2A	P1204977-011	Water	11/29/2012	00:00					X	X
TO-15-Dryer-2B	P1204977-012	Air	11/29/2012	00:00	SC00825	-10.14	3.61	X		

Columbia Analytical Services
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Air - Chain of Custody Record & Analytical Service Request

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No. P1204977

CAS Contact:

Company Name & Address (Reporting Information): TRC Environmental, 21 Griffin Rd North, Windsor CT 06095

Project Name: G+K

Project Number: 193461.0000.0000

Project Manager: Troy Potter

P.O. # / Billing Information

Phone: 860 298 6337 Fax: 860 298 6399

Email Address for Result Reporting: tpotter@trcsolutions.com

Sampler (Print & Sign): R Potter

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code #- FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15	VOC 8260 List	Comments e.g. Actual Preservative or specific instructions
TO15-RoomAir-1	1-571	11/28		SC00081	FC500074	30.00	12.66		✓		
TO15-RoomAir-2	2-467	11/28		SC01500	FC500074	29.88	11.17		✓		
TO15-Washed-1	3-453	11/28		SC01492	FC500057	30.00	9.76		✓		
TO15-Washer2-1	4-605	11/28		SC00922	FC500060	30.01	13.67		✓		
TO-15-Dryer 1A	5	11/28		40ml VOA Vial						✓	
TO15-Dryer 1B	6-444	11/28		SC01543					✓		

Report Tier Levels - please select
Tier I - Results (Default if not specified) ____
Tier II (Results + QC Summaries) ____
Tier III (Results + QC & Calibration Summaries) ____
Tier IV (Data Validation Package) 10% Surcharge ____
EDD required Yes / No
Type: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 12/4/12	Time: 0930

Cooler / Blank Temperature ____°C

COC AIR REV 3-11

Columbia Analytical Services

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Air - Chain of Custody Record & Analytical Service Request

Page 2 of 2

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No. P1204917

CAS Contact:

Company Name & Address (Reporting Information): TRC Environmental, 21 Griffin Road North, Windsor CT 06095

Project Name: GTK

Project Number: 193461.0000.0000

Project Manager: Guy Potter

P.O. # / Billing Information

Phone: 860 298 6337 Fax: 860 298 6399

Email Address for Result Reporting: rpotter@trcsolutions.com

Sampler (Print & Sign): RPotter

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code #- FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15	VOC 8260 List	Comments e.g. Actual Preservative or specific instructions
TO-15 RoomAir-3	7-5.68	11/29		SC001160	FC000074	30.01	30.01		✓		
TO15 RoomAir-4	8-11.11	11/29		SC01539	FC000076	29.88	23.25		✓		
TO15 Washer 1-2	9-4.04	11/29		SC01598	FC000057	29.93	9.38		✓		
TO15 Washer 2-2	10-9.99	11/29		SC00836	FC000066	30.03			✓		
TO15-Dryer-2A	11	11/29		40ml vial						✓	
TO15-Dryer-2B	12-10.35	11/29		SC00825		29.58	21.75		✓		
	-14.63										
	-14.67										
	-14.61										
	-14.60										
	-14.24										
	-13.18										

Report Tier Levels - please select
Tier I - Results (Default if not specified) ____
Tier II (Results + QC Summaries) ____
Tier III (Results + QC & Calibration Summaries) ____
Tier IV (Data Validation Package) 10% Surcharge ____

EDD required Yes / No
Type: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature) [signature]	Date: 11/4/6	Time: 0930

Cooler / Blank Temperature ____ °C

COC AIR REV 3-11

Columbia Analytical Services
Now part of the ALS Group
2655 Park Center Drive, Suite A, Simi Valley, CA 93065 | 805.526.7161 | www.caslab.com

Sample Acceptance Check Form

Client: TRC Environmental Corporation Work order: P1204977
Project: G&K / 193461.0000.0000
Sample(s) received on: 12/4/12 Date opened: 12/4/12 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☐	☒	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
9	Was a **trip blank** received?	☐	☒	☐
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☒	☐	☐
	Is there a client indication that the submitted samples are **pH** preserved?	☒	☐	☐
	Were **VOA vials** checked for presence/absence of air bubbles?	☒	☐	☐
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☒	☐	☐
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1204977-001.01	6.0 L Source Can					
P1204977-002.01	6.0 L Source Can					
P1204977-003.01	6.0 L Source Can					
P1204977-004.01	6.0 L Source Can					
P1204977-005.01	40mL VOA NP				A	
P1204977-006.01	6.0 L Source Can					
P1204977-007.01	6.0 L Source Can					
P1204977-008.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers):
Chain of Custody is missing time collected

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

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Sample Acceptance Check Form

Client: TRC Environmental Corporation Work order: P1204977
Project: G&K / 193461.0000.0000
Sample(s) received on: 12/4/12 Date opened: 12/4/12 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1204977-009.01	6.0 L Source Can					
P1204977-010.01	6.0 L Source Can					
P1204977-011.01	40mL VOA NP				A	
P1204977-012.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-1** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-001

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.080 Liter(s)
Test Notes: 0.060 Liter(s)
Container ID: SC00081

Initial Pressure (psig): -5.37 Final Pressure (psig): 3.50

Canister Dilution Factor: 1.95

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**30**	12	**17**	7.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	12	ND	2.5	
74-87-3	Chloromethane	ND	12	ND	5.9	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	12	ND	1.7	
75-01-4	Vinyl Chloride	ND	12	ND	4.8	
106-99-0	1,3-Butadiene	ND	12	ND	5.5	
74-83-9	Bromomethane	ND	12	ND	3.1	
75-00-3	Chloroethane	ND	12	ND	4.6	
64-17-5	Ethanol	**680**	120	**360**	65	
75-05-8	Acetonitrile	ND	12	ND	7.3	
107-02-8	Acrolein	ND	49	ND	21	
67-64-1	Acetone	**350**	120	**150**	51	
75-69-4	Trichlorofluoromethane	ND	12	ND	2.2	
67-63-0	2-Propanol (Isopropyl Alcohol)	**730**	120	**300**	50	
107-13-1	Acrylonitrile	ND	12	ND	5.6	
75-35-4	1,1-Dichloroethene	ND	12	ND	3.1	
75-09-2	Methylene Chloride	ND	12	ND	3.5	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	12	ND	3.9	
76-13-1	Trichlorotrifluoroethane	ND	12	ND	1.6	
75-15-0	Carbon Disulfide	ND	120	ND	39	
156-60-5	trans-1,2-Dichloroethene	ND	12	ND	3.1	
75-34-3	1,1-Dichloroethane	ND	12	ND	3.0	
1634-04-4	Methyl tert-Butyl Ether	ND	12	ND	3.4	
108-05-4	Vinyl Acetate	ND	120	ND	35	
78-93-3	2-Butanone (MEK)	ND	120	ND	41	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-1** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-001

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.080 Liter(s)
Test Notes: 0.060 Liter(s)
Container ID: SC00081

Initial Pressure (psig): -5.37 Final Pressure (psig): 3.50

Canister Dilution Factor: 1.95

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	12	ND	3.1	
141-78-6	Ethyl Acetate	**26**	24	**7.1**	6.8	
110-54-3	n-Hexane	ND	12	ND	3.5	
67-66-3	Chloroform	ND	12	ND	2.5	
109-99-9	Tetrahydrofuran (THF)	ND	12	ND	4.1	
107-06-2	1,2-Dichloroethane	**12**	12	**3.0**	3.0	
71-55-6	1,1,1-Trichloroethane	ND	12	ND	2.2	
71-43-2	Benzene	ND	12	ND	3.8	
56-23-5	Carbon Tetrachloride	ND	12	ND	1.9	
110-82-7	Cyclohexane	ND	24	ND	7.1	
78-87-5	1,2-Dichloropropane	ND	12	ND	2.6	
75-27-4	Bromodichloromethane	ND	12	ND	1.8	
79-01-6	Trichloroethene	ND	12	ND	2.3	
123-91-1	1,4-Dioxane	ND	12	ND	3.4	
80-62-6	Methyl Methacrylate	ND	24	ND	6.0	
142-82-5	n-Heptane	**350**	12	**86**	3.0	
10061-01-5	cis-1,3-Dichloropropene	ND	12	ND	2.7	
108-10-1	4-Methyl-2-pentanone	**47**	12	**11**	3.0	
10061-02-6	trans-1,3-Dichloropropene	ND	12	ND	2.7	
79-00-5	1,1,2-Trichloroethane	ND	12	ND	2.2	
108-88-3	Toluene	**3,000**	16	**800**	4.3	**D**
591-78-6	2-Hexanone	ND	12	ND	3.0	
124-48-1	Dibromochloromethane	ND	12	ND	1.4	
106-93-4	1,2-Dibromoethane	ND	12	ND	1.6	
123-86-4	n-Butyl Acetate	**68**	12	**14**	2.6	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-1**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00081

Date Collected: 11/28/12
Date Received: 12/4/12
Date Analyzed: 12/6/12
Volume(s) Analyzed: 0.080 Liter(s)
0.060 Liter(s)

Initial Pressure (psig): -5.37 Final Pressure (psig): 3.50

Canister Dilution Factor: 1.95

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**88**	12	**19**	2.6	
127-18-4	Tetrachloroethene	**2,700**	16	**400**	2.4	**D**
108-90-7	Chlorobenzene	ND	12	ND	2.6	
100-41-4	Ethylbenzene	**94**	12	**22**	2.8	
179601-23-1	m,p-Xylenes	**350**	24	**81**	5.6	
75-25-2	Bromoform	ND	12	ND	1.2	
100-42-5	Styrene	ND	12	ND	2.9	
95-47-6	o-Xylene	**130**	12	**30**	2.8	
111-84-2	n-Nonane	**240**	12	**46**	2.3	
79-34-5	1,1,2,2-Tetrachloroethane	ND	12	ND	1.8	
98-82-8	Cumene	**13**	12	**2.7**	2.5	
80-56-8	alpha-Pinene	ND	12	ND	2.2	
103-65-1	n-Propylbenzene	**46**	12	**9.4**	2.5	
622-96-8	4-Ethyltoluene	**75**	12	**15**	2.5	
108-67-8	1,3,5-Trimethylbenzene	**83**	12	**17**	2.5	
95-63-6	1,2,4-Trimethylbenzene	**230**	12	**46**	2.5	
100-44-7	Benzyl Chloride	ND	12	ND	2.4	
541-73-1	1,3-Dichlorobenzene	ND	12	ND	2.0	
106-46-7	1,4-Dichlorobenzene	ND	12	ND	2.0	
95-50-1	1,2-Dichlorobenzene	ND	12	ND	2.0	
5989-27-5	d-Limonene	**100**	12	**18**	2.2	
96-12-8	1,2-Dibromo-3-chloropropane	ND	12	ND	1.3	
120-82-1	1,2,4-Trichlorobenzene	ND	12	ND	1.6	
91-20-3	Naphthalene	ND	12	ND	2.3	
87-68-3	Hexachlorobutadiene	ND	12	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-002

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.070 Liter(s)
Test Notes: 0.035 Liter(s)
Container ID: SC01500

Initial Pressure (psig): -4.39 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	13	ND	7.3	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	13	ND	2.6	
74-87-3	Chloromethane	ND	13	ND	6.1	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	13	ND	1.8	
75-01-4	Vinyl Chloride	ND	13	ND	4.9	
106-99-0	1,3-Butadiene	ND	13	ND	5.7	
74-83-9	Bromomethane	ND	13	ND	3.3	
75-00-3	Chloroethane	ND	13	ND	4.8	
64-17-5	Ethanol	**630**	130	**340**	67	
75-05-8	Acetonitrile	ND	13	ND	7.5	
107-02-8	Acrolein	ND	51	ND	22	
67-64-1	Acetone	**220**	130	**94**	53	
75-69-4	Trichlorofluoromethane	ND	13	ND	2.3	
67-63-0	2-Propanol (Isopropyl Alcohol)	**330**	130	**130**	51	
107-13-1	Acrylonitrile	ND	13	ND	5.8	
75-35-4	1,1-Dichloroethene	ND	13	ND	3.2	
75-09-2	Methylene Chloride	ND	13	ND	3.6	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	13	ND	4.0	
76-13-1	Trichlorotrifluoroethane	ND	13	ND	1.7	
75-15-0	Carbon Disulfide	ND	130	ND	41	
156-60-5	trans-1,2-Dichloroethene	ND	13	ND	3.2	
75-34-3	1,1-Dichloroethane	ND	13	ND	3.1	
1634-04-4	Methyl tert-Butyl Ether	ND	13	ND	3.5	
108-05-4	Vinyl Acetate	ND	130	ND	36	
78-93-3	2-Butanone (MEK)	ND	130	ND	43	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-2**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01500

Date Collected: 11/28/12
Date Received: 12/4/12
Date Analyzed: 12/6 - 12/7/12
Volume(s) Analyzed: 0.070 Liter(s)
0.035 Liter(s)

Initial Pressure (psig): -4.39 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	13	ND	3.2	
141-78-6	Ethyl Acetate	ND	25	ND	7.0	
110-54-3	n-Hexane	**16**	13	**4.5**	3.6	
67-66-3	Chloroform	ND	13	ND	2.6	
109-99-9	Tetrahydrofuran (THF)	ND	13	ND	4.3	
107-06-2	1,2-Dichloroethane	**18**	13	**4.5**	3.1	
71-55-6	1,1,1-Trichloroethane	ND	13	ND	2.3	
71-43-2	Benzene	ND	13	ND	4.0	
56-23-5	Carbon Tetrachloride	ND	13	ND	2.0	
110-82-7	Cyclohexane	ND	25	ND	7.3	
78-87-5	1,2-Dichloropropane	ND	13	ND	2.7	
75-27-4	Bromodichloromethane	ND	13	ND	1.9	
79-01-6	Trichloroethene	ND	13	ND	2.4	
123-91-1	1,4-Dioxane	ND	13	ND	3.5	
80-62-6	Methyl Methacrylate	ND	25	ND	6.2	
142-82-5	n-Heptane	**230**	13	**56**	3.1	
10061-01-5	cis-1,3-Dichloropropene	ND	13	ND	2.8	
108-10-1	4-Methyl-2-pentanone	**47**	13	**11**	3.1	
10061-02-6	trans-1,3-Dichloropropene	ND	13	ND	2.8	
79-00-5	1,1,2-Trichloroethane	ND	13	ND	2.3	
108-88-3	Toluene	**3,600**	25	**950**	6.7	**D**
591-78-6	2-Hexanone	ND	13	ND	3.1	
124-48-1	Dibromochloromethane	ND	13	ND	1.5	
106-93-4	1,2-Dibromoethane	ND	13	ND	1.6	
123-86-4	n-Butyl Acetate	ND	13	ND	2.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-2**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01500

Date Collected: 11/28/12
Date Received: 12/4/12
Date Analyzed: 12/6 - 12/7/12
Volume(s) Analyzed: 0.070 Liter(s)
0.035 Liter(s)

Initial Pressure (psig): -4.39 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**38**	13	**8.1**	2.7	
127-18-4	Tetrachloroethene	**1,100**	13	**160**	1.9	
108-90-7	Chlorobenzene	ND	13	ND	2.7	
100-41-4	Ethylbenzene	**77**	13	**18**	2.9	
179601-23-1	m,p-Xylenes	**270**	25	**62**	5.8	
75-25-2	Bromoform	ND	13	ND	1.2	
100-42-5	Styrene	ND	13	ND	3.0	
95-47-6	o-Xylene	**100**	13	**23**	2.9	
111-84-2	n-Nonane	**140**	13	**27**	2.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	13	ND	1.8	
98-82-8	Cumene	ND	13	ND	2.6	
80-56-8	alpha-Pinene	ND	13	ND	2.3	
103-65-1	n-Propylbenzene	**44**	13	**9.0**	2.6	
622-96-8	4-Ethyltoluene	**75**	13	**15**	2.6	
108-67-8	1,3,5-Trimethylbenzene	**81**	13	**17**	2.6	
95-63-6	1,2,4-Trimethylbenzene	**230**	13	**47**	2.6	
100-44-7	Benzyl Chloride	ND	13	ND	2.4	
541-73-1	1,3-Dichlorobenzene	ND	13	ND	2.1	
106-46-7	1,4-Dichlorobenzene	ND	13	ND	2.1	
95-50-1	1,2-Dichlorobenzene	ND	13	ND	2.1	
5989-27-5	d-Limonene	**160**	13	**29**	2.3	
96-12-8	1,2-Dibromo-3-chloropropane	ND	13	ND	1.3	
120-82-1	1,2,4-Trichlorobenzene	ND	13	ND	1.7	
91-20-3	Naphthalene	**14**	13	**2.7**	2.4	
87-68-3	Hexachlorobutadiene	ND	13	ND	1.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-1-1** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-003

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.010 Liter(s)
Test Notes:
Container ID: SC01492

Initial Pressure (psig): -4.25 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.74

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	87	ND	51	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	87	ND	18	
74-87-3	Chloromethane	ND	87	ND	42	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	87	ND	12	
75-01-4	Vinyl Chloride	ND	87	ND	34	
106-99-0	1,3-Butadiene	ND	87	ND	39	
74-83-9	Bromomethane	ND	87	ND	22	
75-00-3	Chloroethane	ND	87	ND	33	
64-17-5	Ethanol	ND	870	ND	460	
75-05-8	Acetonitrile	ND	87	ND	52	
107-02-8	Acrolein	ND	350	ND	150	
67-64-1	Acetone	ND	870	ND	370	
75-69-4	Trichlorofluoromethane	ND	87	ND	15	
67-63-0	2-Propanol (Isopropyl Alcohol)	**1,500**	870	**600**	350	
107-13-1	Acrylonitrile	ND	87	ND	40	
75-35-4	1,1-Dichloroethene	ND	87	ND	22	
75-09-2	Methylene Chloride	ND	87	ND	25	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	87	ND	28	
76-13-1	Trichlorotrifluoroethane	ND	87	ND	11	
75-15-0	Carbon Disulfide	ND	870	ND	280	
156-60-5	trans-1,2-Dichloroethene	ND	87	ND	22	
75-34-3	1,1-Dichloroethane	ND	87	ND	22	
1634-04-4	Methyl tert-Butyl Ether	ND	87	ND	24	
108-05-4	Vinyl Acetate	ND	870	ND	250	
78-93-3	2-Butanone (MEK)	ND	870	ND	300	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-1-1** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-003

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.010 Liter(s)
Test Notes:
Container ID: SC01492

Initial Pressure (psig): -4.25 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.74

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	87	ND	22	
141-78-6	Ethyl Acetate	ND	170	ND	48	
110-54-3	n-Hexane	**170**	87	**47**	25	
67-66-3	Chloroform	ND	87	ND	18	
109-99-9	Tetrahydrofuran (THF)	ND	87	ND	30	
107-06-2	1,2-Dichloroethane	ND	87	ND	22	
71-55-6	1,1,1-Trichloroethane	ND	87	ND	16	
71-43-2	Benzene	ND	87	ND	27	
56-23-5	Carbon Tetrachloride	ND	87	ND	14	
110-82-7	Cyclohexane	ND	170	ND	51	
78-87-5	1,2-Dichloropropane	ND	87	ND	19	
75-27-4	Bromodichloromethane	ND	87	ND	13	
79-01-6	Trichloroethene	ND	87	ND	16	
123-91-1	1,4-Dioxane	ND	87	ND	24	
80-62-6	Methyl Methacrylate	ND	170	ND	43	
142-82-5	n-Heptane	**3,000**	87	**720**	21	
10061-01-5	cis-1,3-Dichloropropene	ND	87	ND	19	
108-10-1	4-Methyl-2-pentanone	**110**	87	**27**	21	
10061-02-6	trans-1,3-Dichloropropene	ND	87	ND	19	
79-00-5	1,1,2-Trichloroethane	ND	87	ND	16	
108-88-3	Toluene	**14,000**	87	**3,700**	23	
591-78-6	2-Hexanone	ND	87	ND	21	
124-48-1	Dibromochloromethane	ND	87	ND	10	
106-93-4	1,2-Dibromoethane	ND	87	ND	11	
123-86-4	n-Butyl Acetate	**760**	87	**160**	18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-1-1**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01492

Date Collected: 11/28/12
Date Received: 12/4/12
Date Analyzed: 12/6/12
Volume(s) Analyzed: 0.010 Liter(s)

Initial Pressure (psig): -4.25 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.74

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**590**	87	**130**	19	
127-18-4	Tetrachloroethene	**6,600**	87	**980**	13	
108-90-7	Chlorobenzene	ND	87	ND	19	
100-41-4	Ethylbenzene	**720**	87	**170**	20	
179601-23-1	m,p-Xylenes	**2,500**	170	**580**	40	
75-25-2	Bromoform	ND	87	ND	8.4	
100-42-5	Styrene	ND	87	ND	20	
95-47-6	o-Xylene	**820**	87	**190**	20	
111-84-2	n-Nonane	**1,400**	87	**270**	17	
79-34-5	1,1,2,2-Tetrachloroethane	ND	87	ND	13	
98-82-8	Cumene	**150**	87	**30**	18	
80-56-8	alpha-Pinene	ND	87	ND	16	
103-65-1	n-Propylbenzene	**470**	87	**96**	18	
622-96-8	4-Ethyltoluene	**690**	87	**140**	18	
108-67-8	1,3,5-Trimethylbenzene	**600**	87	**120**	18	
95-63-6	1,2,4-Trimethylbenzene	**1,400**	87	**280**	18	
100-44-7	Benzyl Chloride	ND	87	ND	17	
541-73-1	1,3-Dichlorobenzene	ND	87	ND	14	
106-46-7	1,4-Dichlorobenzene	ND	87	ND	14	
95-50-1	1,2-Dichlorobenzene	ND	87	ND	14	
5989-27-5	d-Limonene	**170**	87	**30**	16	
96-12-8	1,2-Dibromo-3-chloropropane	ND	87	ND	9.0	
120-82-1	1,2,4-Trichlorobenzene	ND	87	ND	12	
91-20-3	Naphthalene	ND	87	ND	17	
87-68-3	Hexachlorobutadiene	ND	87	ND	8.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-2-1** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-004

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.0045 Liter(s)
Test Notes:
Container ID: SC00922

Initial Pressure (psig): -5.78 Final Pressure (psig): 3.52

Canister Dilution Factor: 2.04

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	230	ND	130	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	230	ND	46	
74-87-3	Chloromethane	ND	230	ND	110	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	230	ND	32	
75-01-4	Vinyl Chloride	ND	230	ND	89	
106-99-0	1,3-Butadiene	ND	230	ND	100	
74-83-9	Bromomethane	ND	230	ND	58	
75-00-3	Chloroethane	ND	230	ND	86	
64-17-5	Ethanol	ND	2,300	ND	1,200	
75-05-8	Acetonitrile	ND	230	ND	140	
107-02-8	Acrolein	ND	910	ND	400	
67-64-1	Acetone	ND	2,300	ND	950	
75-69-4	Trichlorofluoromethane	ND	230	ND	40	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2,300	ND	920	
107-13-1	Acrylonitrile	ND	230	ND	100	
75-35-4	1,1-Dichloroethene	ND	230	ND	57	
75-09-2	Methylene Chloride	ND	230	ND	65	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	230	ND	72	
76-13-1	Trichlorotrifluoroethane	ND	230	ND	30	
75-15-0	Carbon Disulfide	ND	2,300	ND	730	
156-60-5	trans-1,2-Dichloroethene	ND	230	ND	57	
75-34-3	1,1-Dichloroethane	ND	230	ND	56	
1634-04-4	Methyl tert-Butyl Ether	ND	230	ND	63	
108-05-4	Vinyl Acetate	ND	2,300	ND	640	
78-93-3	2-Butanone (MEK)	ND	2,300	ND	770	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-2-1** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-004

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.0045 Liter(s)
Test Notes:
Container ID: SC00922

Initial Pressure (psig): -5.78 Final Pressure (psig): 3.52

Canister Dilution Factor: 2.04

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	230	ND	57	
141-78-6	Ethyl Acetate	ND	450	ND	130	
110-54-3	n-Hexane	**270**	230	**77**	64	
67-66-3	Chloroform	ND	230	ND	46	
109-99-9	Tetrahydrofuran (THF)	ND	230	ND	77	
107-06-2	1,2-Dichloroethane	**240**	230	**60**	56	
71-55-6	1,1,1-Trichloroethane	ND	230	ND	42	
71-43-2	Benzene	ND	230	ND	71	
56-23-5	Carbon Tetrachloride	ND	230	ND	36	
110-82-7	Cyclohexane	ND	450	ND	130	
78-87-5	1,2-Dichloropropane	ND	230	ND	49	
75-27-4	Bromodichloromethane	ND	230	ND	34	
79-01-6	Trichloroethene	ND	230	ND	42	
123-91-1	1,4-Dioxane	ND	230	ND	63	
80-62-6	Methyl Methacrylate	ND	450	ND	110	
142-82-5	n-Heptane	**3,500**	230	**860**	55	
10061-01-5	cis-1,3-Dichloropropene	ND	230	ND	50	
108-10-1	4-Methyl-2-pentanone	ND	230	ND	55	
10061-02-6	trans-1,3-Dichloropropene	ND	230	ND	50	
79-00-5	1,1,2-Trichloroethane	ND	230	ND	42	
108-88-3	Toluene	**31,000**	230	**8,400**	60	
591-78-6	2-Hexanone	ND	230	ND	55	
124-48-1	Dibromochloromethane	ND	230	ND	27	
106-93-4	1,2-Dibromoethane	ND	230	ND	30	
123-86-4	n-Butyl Acetate	ND	230	ND	48	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-2-1**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00922

Date Collected: 11/28/12
Date Received: 12/4/12
Date Analyzed: 12/6/12
Volume(s) Analyzed: 0.0045 Liter(s)

Initial Pressure (psig): -5.78 Final Pressure (psig): 3.52

Canister Dilution Factor: 2.04

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**580**	230	**120**	49	
127-18-4	Tetrachloroethene	**13,000**	230	**1,900**	33	
108-90-7	Chlorobenzene	ND	230	ND	49	
100-41-4	Ethylbenzene	**380**	230	**87**	52	
179601-23-1	m,p-Xylenes	**1,300**	450	**300**	100	
75-25-2	Bromoform	ND	230	ND	22	
100-42-5	Styrene	ND	230	ND	53	
95-47-6	o-Xylene	**430**	230	**100**	52	
111-84-2	n-Nonane	**930**	230	**180**	43	
79-34-5	1,1,2,2-Tetrachloroethane	ND	230	ND	33	
98-82-8	Cumene	ND	230	ND	46	
80-56-8	alpha-Pinene	ND	230	ND	41	
103-65-1	n-Propylbenzene	ND	230	ND	46	
622-96-8	4-Ethyltoluene	**270**	230	**54**	46	
108-67-8	1,3,5-Trimethylbenzene	**240**	230	**49**	46	
95-63-6	1,2,4-Trimethylbenzene	**440**	230	**90**	46	
100-44-7	Benzyl Chloride	ND	230	ND	44	
541-73-1	1,3-Dichlorobenzene	ND	230	ND	38	
106-46-7	1,4-Dichlorobenzene	ND	230	ND	38	
95-50-1	1,2-Dichlorobenzene	ND	230	ND	38	
5989-27-5	d-Limonene	ND	230	ND	41	
96-12-8	1,2-Dibromo-3-chloropropane	ND	230	ND	23	
120-82-1	1,2,4-Trichlorobenzene	ND	230	ND	31	
91-20-3	Naphthalene	ND	230	ND	43	
87-68-3	Hexachlorobutadiene	ND	230	ND	21	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Dryer-1B** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-006

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC01543

Initial Pressure (psig): -4.04 Final Pressure (psig): 3.58

Canister Dilution Factor: 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**4.3**	0.86	**2.5**	0.50	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.1**	0.86	**0.42**	0.17	
74-87-3	Chloromethane	ND	0.86	ND	0.41	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.86	ND	0.12	
75-01-4	Vinyl Chloride	ND	0.86	ND	0.33	
106-99-0	1,3-Butadiene	ND	0.86	ND	0.39	
74-83-9	Bromomethane	ND	0.86	ND	0.22	
75-00-3	Chloroethane	ND	0.86	ND	0.32	
64-17-5	Ethanol	ND	8.6	ND	4.5	
75-05-8	Acetonitrile	ND	0.86	ND	0.51	
107-02-8	Acrolein	ND	3.4	ND	1.5	
67-64-1	Acetone	**380**	8.6	**160**	3.6	
75-69-4	Trichlorofluoromethane	**1.0**	0.86	**0.18**	0.15	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	8.6	ND	3.5	
107-13-1	Acrylonitrile	ND	0.86	ND	0.39	
75-35-4	1,1-Dichloroethene	ND	0.86	ND	0.22	
75-09-2	Methylene Chloride	ND	0.86	ND	0.25	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.86	ND	0.27	
76-13-1	Trichlorotrifluoroethane	ND	0.86	ND	0.11	
75-15-0	Carbon Disulfide	**11**	8.6	**3.5**	2.7	
156-60-5	trans-1,2-Dichloroethene	ND	0.86	ND	0.22	
75-34-3	1,1-Dichloroethane	ND	0.86	ND	0.21	
1634-04-4	Methyl tert-Butyl Ether	ND	0.86	ND	0.24	
108-05-4	Vinyl Acetate	ND	8.6	ND	2.4	
78-93-3	2-Butanone (MEK)	ND	8.6	ND	2.9	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Dryer-1B** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-006

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC01543

Initial Pressure (psig): -4.04 Final Pressure (psig): 3.58

Canister Dilution Factor: 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.86	ND	0.22	
141-78-6	Ethyl Acetate	ND	1.7	ND	0.47	
110-54-3	n-Hexane	**4.7**	0.86	**1.3**	0.24	
67-66-3	Chloroform	ND	0.86	ND	0.18	
109-99-9	Tetrahydrofuran (THF)	ND	0.86	ND	0.29	
107-06-2	1,2-Dichloroethane	**1.6**	0.86	**0.40**	0.21	
71-55-6	1,1,1-Trichloroethane	ND	0.86	ND	0.16	
71-43-2	Benzene	**1.7**	0.86	**0.54**	0.27	
56-23-5	Carbon Tetrachloride	ND	0.86	ND	0.14	
110-82-7	Cyclohexane	**3.4**	1.7	**0.99**	0.50	
78-87-5	1,2-Dichloropropane	ND	0.86	ND	0.19	
75-27-4	Bromodichloromethane	ND	0.86	ND	0.13	
79-01-6	Trichloroethene	**1.3**	0.86	**0.23**	0.16	
123-91-1	1,4-Dioxane	ND	0.86	ND	0.24	
80-62-6	Methyl Methacrylate	ND	1.7	ND	0.42	
142-82-5	n-Heptane	**69**	0.86	**17**	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.86	ND	0.19	
108-10-1	4-Methyl-2-pentanone	ND	0.86	ND	0.21	
10061-02-6	trans-1,3-Dichloropropene	ND	0.86	ND	0.19	
79-00-5	1,1,2-Trichloroethane	ND	0.86	ND	0.16	
108-88-3	Toluene	**120**	0.86	**31**	0.23	
591-78-6	2-Hexanone	ND	0.86	ND	0.21	
124-48-1	Dibromochloromethane	ND	0.86	ND	0.10	
106-93-4	1,2-Dibromoethane	ND	0.86	ND	0.11	
123-86-4	n-Butyl Acetate	ND	0.86	ND	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Dryer-1B**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01543

Date Collected: 11/28/12
Date Received: 12/4/12
Date Analyzed: 12/6/12
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.04 Final Pressure (psig): 3.58

Canister Dilution Factor: 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**2.2**	0.86	**0.47**	0.18	
127-18-4	Tetrachloroethene	**41**	0.86	**6.0**	0.13	
108-90-7	Chlorobenzene	ND	0.86	ND	0.19	
100-41-4	Ethylbenzene	**1.0**	0.86	**0.23**	0.20	
179601-23-1	m,p-Xylenes	**3.7**	1.7	**0.85**	0.39	
75-25-2	Bromoform	ND	0.86	ND	0.083	
100-42-5	Styrene	ND	0.86	ND	0.20	
95-47-6	o-Xylene	**1.3**	0.86	**0.29**	0.20	
111-84-2	n-Nonane	**2.7**	0.86	**0.51**	0.16	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.86	ND	0.12	
98-82-8	Cumene	ND	0.86	ND	0.17	
80-56-8	alpha-Pinene	ND	0.86	ND	0.15	
103-65-1	n-Propylbenzene	ND	0.86	ND	0.17	
622-96-8	4-Ethyltoluene	**1.4**	0.86	**0.28**	0.17	
108-67-8	1,3,5-Trimethylbenzene	**1.4**	0.86	**0.28**	0.17	
95-63-6	1,2,4-Trimethylbenzene	**3.8**	0.86	**0.78**	0.17	
100-44-7	Benzyl Chloride	ND	0.86	ND	0.17	
541-73-1	1,3-Dichlorobenzene	ND	0.86	ND	0.14	
106-46-7	1,4-Dichlorobenzene	ND	0.86	ND	0.14	
95-50-1	1,2-Dichlorobenzene	ND	0.86	ND	0.14	
5989-27-5	d-Limonene	**15**	0.86	**2.6**	0.15	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.86	ND	0.088	
120-82-1	1,2,4-Trichlorobenzene	ND	0.86	ND	0.12	
91-20-3	Naphthalene	ND	0.86	ND	0.16	
87-68-3	Hexachlorobutadiene	ND	0.86	ND	0.080	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-3** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-007

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: SC00160

Initial Pressure (psig): -5.38 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.95

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**200**	20	**110**	11	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	20	ND	3.9	
74-87-3	Chloromethane	ND	20	ND	9.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	20	ND	2.8	
75-01-4	Vinyl Chloride	ND	20	ND	7.6	
106-99-0	1,3-Butadiene	ND	20	ND	8.8	
74-83-9	Bromomethane	ND	20	ND	5.0	
75-00-3	Chloroethane	ND	20	ND	7.4	
64-17-5	Ethanol	ND	200	ND	100	
75-05-8	Acetonitrile	ND	20	ND	12	
107-02-8	Acrolein	ND	78	ND	34	
67-64-1	Acetone	**7,700**	200	**3,300**	82	
75-69-4	Trichlorofluoromethane	ND	20	ND	3.5	
67-63-0	2-Propanol (Isopropyl Alcohol)	**2,300**	200	**950**	79	
107-13-1	Acrylonitrile	ND	20	ND	9.0	
75-35-4	1,1-Dichloroethene	ND	20	ND	4.9	
75-09-2	Methylene Chloride	ND	20	ND	5.6	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	20	ND	6.2	
76-13-1	Trichlorotrifluoroethane	ND	20	ND	2.5	
75-15-0	Carbon Disulfide	ND	200	ND	63	
156-60-5	trans-1,2-Dichloroethene	ND	20	ND	4.9	
75-34-3	1,1-Dichloroethane	ND	20	ND	4.8	
1634-04-4	Methyl tert-Butyl Ether	ND	20	ND	5.4	
108-05-4	Vinyl Acetate	ND	200	ND	55	
78-93-3	2-Butanone (MEK)	ND	200	ND	66	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-3** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-007

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: SC00160

Initial Pressure (psig): -5.38 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.95

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	20	ND	4.9	
141-78-6	Ethyl Acetate	ND	39	ND	11	
110-54-3	n-Hexane	**1,100**	20	**300**	5.5	
67-66-3	Chloroform	ND	20	ND	4.0	
109-99-9	Tetrahydrofuran (THF)	ND	20	ND	6.6	
107-06-2	1,2-Dichloroethane	ND	20	ND	4.8	
71-55-6	1,1,1-Trichloroethane	ND	20	ND	3.6	
71-43-2	Benzene	ND	20	ND	6.1	
56-23-5	Carbon Tetrachloride	ND	20	ND	3.1	
110-82-7	Cyclohexane	**860**	39	**250**	11	
78-87-5	1,2-Dichloropropane	ND	20	ND	4.2	
75-27-4	Bromodichloromethane	ND	20	ND	2.9	
79-01-6	Trichloroethene	ND	20	ND	3.6	
123-91-1	1,4-Dioxane	ND	20	ND	5.4	
80-62-6	Methyl Methacrylate	ND	39	ND	9.5	
142-82-5	n-Heptane	**330**	20	**81**	4.8	
10061-01-5	cis-1,3-Dichloropropene	ND	20	ND	4.3	
108-10-1	4-Methyl-2-pentanone	**320**	20	**79**	4.8	
10061-02-6	trans-1,3-Dichloropropene	ND	20	ND	4.3	
79-00-5	1,1,2-Trichloroethane	ND	20	ND	3.6	
108-88-3	Toluene	**1,600**	20	**430**	5.2	
591-78-6	2-Hexanone	ND	20	ND	4.8	
124-48-1	Dibromochloromethane	ND	20	ND	2.3	
106-93-4	1,2-Dibromoethane	ND	20	ND	2.5	
123-86-4	n-Butyl Acetate	**21**	20	**4.4**	4.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-3**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00160

Date Collected: 11/29/12
Date Received: 12/4/12
Date Analyzed: 12/6 - 12/7/12
Volume(s) Analyzed: 0.050 Liter(s)
0.025 Liter(s)

Initial Pressure (psig): -5.38 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.95

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**170**	20	**35**	4.2	
127-18-4	Tetrachloroethene	**230**	20	**34**	2.9	
108-90-7	Chlorobenzene	ND	20	ND	4.2	
100-41-4	Ethylbenzene	**330**	20	**77**	4.5	
179601-23-1	m,p-Xylenes	**1,300**	39	**300**	9.0	
75-25-2	Bromoform	ND	20	ND	1.9	
100-42-5	Styrene	ND	20	ND	4.6	
95-47-6	o-Xylene	**610**	20	**140**	4.5	
111-84-2	n-Nonane	**2,100**	20	**390**	3.7	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	ND	2.8	
98-82-8	Cumene	**280**	20	**58**	4.0	
80-56-8	alpha-Pinene	ND	20	ND	3.5	
103-65-1	n-Propylbenzene	**1,200**	20	**250**	4.0	
622-96-8	4-Ethyltoluene	**1,900**	20	**380**	4.0	
108-67-8	1,3,5-Trimethylbenzene	**2,000**	20	**410**	4.0	
95-63-6	1,2,4-Trimethylbenzene	**3,900**	39	**790**	7.9	**D**
100-44-7	Benzyl Chloride	ND	20	ND	3.8	
541-73-1	1,3-Dichlorobenzene	ND	20	ND	3.2	
106-46-7	1,4-Dichlorobenzene	ND	20	ND	3.2	
95-50-1	1,2-Dichlorobenzene	ND	20	ND	3.2	
5989-27-5	d-Limonene	**410**	20	**74**	3.5	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	ND	2.0	
120-82-1	1,2,4-Trichlorobenzene	ND	20	ND	2.6	
91-20-3	Naphthalene	**23**	20	**4.3**	3.7	
87-68-3	Hexachlorobutadiene	ND	20	ND	1.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-4** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-008

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.13 Liter(s)
Test Notes: 0.065 Liter(s)
Container ID: SC01539

Initial Pressure (psig): -10.88 Final Pressure (psig): 3.52

Canister Dilution Factor: 4.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**140**	18	**80**	11	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	18	ND	3.7	
74-87-3	Chloromethane	ND	18	ND	8.9	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	18	ND	2.6	
75-01-4	Vinyl Chloride	ND	18	ND	7.2	
106-99-0	1,3-Butadiene	ND	18	ND	8.3	
74-83-9	Bromomethane	ND	18	ND	4.7	
75-00-3	Chloroethane	ND	18	ND	7.0	
64-17-5	Ethanol	ND	180	ND	97	
75-05-8	Acetonitrile	ND	18	ND	11	
107-02-8	Acrolein	ND	73	ND	32	
67-64-1	Acetone	**7,400**	180	**3,100**	77	
75-69-4	Trichlorofluoromethane	ND	18	ND	3.3	
67-63-0	2-Propanol (Isopropyl Alcohol)	**1,700**	180	**700**	75	
107-13-1	Acrylonitrile	ND	18	ND	8.5	
75-35-4	1,1-Dichloroethene	ND	18	ND	4.6	
75-09-2	Methylene Chloride	ND	18	ND	5.3	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	18	ND	5.9	
76-13-1	Trichlorotrifluoroethane	ND	18	ND	2.4	
75-15-0	Carbon Disulfide	ND	180	ND	59	
156-60-5	trans-1,2-Dichloroethene	ND	18	ND	4.6	
75-34-3	1,1-Dichloroethane	ND	18	ND	4.5	
1634-04-4	Methyl tert-Butyl Ether	ND	18	ND	5.1	
108-05-4	Vinyl Acetate	ND	180	ND	52	
78-93-3	2-Butanone (MEK)	ND	180	ND	62	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-4** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-008

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.13 Liter(s)
Test Notes: 0.065 Liter(s)
Container ID: SC01539

Initial Pressure (psig): -10.88 Final Pressure (psig): 3.52

Canister Dilution Factor: 4.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	18	ND	4.6	
141-78-6	Ethyl Acetate	ND	37	ND	10	
110-54-3	n-Hexane	**2,000**	18	**570**	5.2	
67-66-3	Chloroform	ND	18	ND	3.8	
109-99-9	Tetrahydrofuran (THF)	ND	18	ND	6.2	
107-06-2	1,2-Dichloroethane	ND	18	ND	4.5	
71-55-6	1,1,1-Trichloroethane	ND	18	ND	3.4	
71-43-2	Benzene	ND	18	ND	5.7	
56-23-5	Carbon Tetrachloride	ND	18	ND	2.9	
110-82-7	Cyclohexane	**1,800**	37	**510**	11	
78-87-5	1,2-Dichloropropane	ND	18	ND	4.0	
75-27-4	Bromodichloromethane	ND	18	ND	2.7	
79-01-6	Trichloroethene	ND	18	ND	3.4	
123-91-1	1,4-Dioxane	ND	18	ND	5.1	
80-62-6	Methyl Methacrylate	ND	37	ND	9.0	
142-82-5	n-Heptane	**140**	18	**35**	4.5	
10061-01-5	cis-1,3-Dichloropropene	ND	18	ND	4.0	
108-10-1	4-Methyl-2-pentanone	**64**	18	**16**	4.5	
10061-02-6	trans-1,3-Dichloropropene	ND	18	ND	4.0	
79-00-5	1,1,2-Trichloroethane	ND	18	ND	3.4	
108-88-3	Toluene	**1,200**	18	**320**	4.9	
591-78-6	2-Hexanone	ND	18	ND	4.5	
124-48-1	Dibromochloromethane	ND	18	ND	2.2	
106-93-4	1,2-Dibromoethane	ND	18	ND	2.4	
123-86-4	n-Butyl Acetate	ND	18	ND	3.9	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-4**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01539

Date Collected: 11/29/12
Date Received: 12/4/12
Date Analyzed: 12/6 - 12/7/12
Volume(s) Analyzed: 0.13 Liter(s)
0.065 Liter(s)

Initial Pressure (psig): -10.88 Final Pressure (psig): 3.52

Canister Dilution Factor: 4.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**230**	18	**48**	3.9	
127-18-4	Tetrachloroethene	**230**	18	**34**	2.7	
108-90-7	Chlorobenzene	ND	18	ND	4.0	
100-41-4	Ethylbenzene	**280**	18	**66**	4.2	
179601-23-1	m,p-Xylenes	**1,200**	37	**270**	8.5	
75-25-2	Bromoform	ND	18	ND	1.8	
100-42-5	Styrene	ND	18	ND	4.3	
95-47-6	o-Xylene	**470**	18	**110**	4.2	
111-84-2	n-Nonane	**1,700**	18	**320**	3.5	
79-34-5	1,1,2,2-Tetrachloroethane	ND	18	ND	2.7	
98-82-8	Cumene	**170**	18	**35**	3.7	
80-56-8	alpha-Pinene	ND	18	ND	3.3	
103-65-1	n-Propylbenzene	**820**	18	**170**	3.7	
622-96-8	4-Ethyltoluene	**1,600**	18	**320**	3.7	
108-67-8	1,3,5-Trimethylbenzene	**1,500**	18	**310**	3.7	
95-63-6	1,2,4-Trimethylbenzene	**3,800**	37	**780**	7.5	**D**
100-44-7	Benzyl Chloride	ND	18	ND	3.5	
541-73-1	1,3-Dichlorobenzene	ND	18	ND	3.1	
106-46-7	1,4-Dichlorobenzene	ND	18	ND	3.1	
95-50-1	1,2-Dichlorobenzene	ND	18	ND	3.1	
5989-27-5	d-Limonene	**670**	18	**120**	3.3	
96-12-8	1,2-Dibromo-3-chloropropane	ND	18	ND	1.9	
120-82-1	1,2,4-Trichlorobenzene	ND	18	ND	2.5	
91-20-3	Naphthalene	**190**	18	**36**	3.5	
87-68-3	Hexachlorobutadiene	ND	18	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-1-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-009

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.0050 Liter(s)
Test Notes:
Container ID: SC01598

Initial Pressure (psig): -3.82 Final Pressure (psig): 3.66

Canister Dilution Factor: 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**320**	170	**180**	98	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	170	ND	34	
74-87-3	Chloromethane	ND	170	ND	82	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	170	ND	24	
75-01-4	Vinyl Chloride	ND	170	ND	66	
106-99-0	1,3-Butadiene	ND	170	ND	76	
74-83-9	Bromomethane	ND	170	ND	44	
75-00-3	Chloroethane	ND	170	ND	64	
64-17-5	Ethanol	ND	1,700	ND	900	
75-05-8	Acetonitrile	ND	170	ND	100	
107-02-8	Acrolein	ND	680	ND	290	
67-64-1	Acetone	**20,000**	1,700	**8,300**	710	
75-69-4	Trichlorofluoromethane	ND	170	ND	30	
67-63-0	2-Propanol (Isopropyl Alcohol)	**5,800**	1,700	**2,400**	690	
107-13-1	Acrylonitrile	ND	170	ND	78	
75-35-4	1,1-Dichloroethene	ND	170	ND	43	
75-09-2	Methylene Chloride	ND	170	ND	49	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	170	ND	54	
76-13-1	Trichlorotrifluoroethane	ND	170	ND	22	
75-15-0	Carbon Disulfide	ND	1,700	ND	540	
156-60-5	trans-1,2-Dichloroethene	ND	170	ND	43	
75-34-3	1,1-Dichloroethane	ND	170	ND	42	
1634-04-4	Methyl tert-Butyl Ether	ND	170	ND	47	
108-05-4	Vinyl Acetate	ND	1,700	ND	480	
78-93-3	2-Butanone (MEK)	ND	1,700	ND	570	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-1-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-009

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.0050 Liter(s)
Test Notes:
Container ID: SC01598

Initial Pressure (psig): -3.82 Final Pressure (psig): 3.66

Canister Dilution Factor: 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	170	ND	43	
141-78-6	Ethyl Acetate	ND	340	ND	94	
110-54-3	n-Hexane	**6,700**	170	**1,900**	48	
67-66-3	Chloroform	ND	170	ND	35	
109-99-9	Tetrahydrofuran (THF)	ND	170	ND	57	
107-06-2	1,2-Dichloroethane	ND	170	ND	42	
71-55-6	1,1,1-Trichloroethane	ND	170	ND	31	
71-43-2	Benzene	ND	170	ND	53	
56-23-5	Carbon Tetrachloride	ND	170	ND	27	
110-82-7	Cyclohexane	**4,600**	340	**1,300**	98	
78-87-5	1,2-Dichloropropane	ND	170	ND	37	
75-27-4	Bromodichloromethane	ND	170	ND	25	
79-01-6	Trichloroethene	ND	170	ND	31	
123-91-1	1,4-Dioxane	ND	170	ND	47	
80-62-6	Methyl Methacrylate	ND	340	ND	83	
142-82-5	n-Heptane	**1,200**	170	**300**	41	
10061-01-5	cis-1,3-Dichloropropene	ND	170	ND	37	
108-10-1	4-Methyl-2-pentanone	**170**	170	**42**	41	
10061-02-6	trans-1,3-Dichloropropene	ND	170	ND	37	
79-00-5	1,1,2-Trichloroethane	ND	170	ND	31	
108-88-3	Toluene	**30,000**	170	**7,900**	45	
591-78-6	2-Hexanone	ND	170	ND	41	
124-48-1	Dibromochloromethane	ND	170	ND	20	
106-93-4	1,2-Dibromoethane	ND	170	ND	22	
123-86-4	n-Butyl Acetate	ND	170	ND	36	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-1-2**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01598

Date Collected: 11/29/12
Date Received: 12/4/12
Date Analyzed: 12/6/12
Volume(s) Analyzed: 0.0050 Liter(s)

Initial Pressure (psig): -3.82 Final Pressure (psig): 3.66

Canister Dilution Factor: 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**1,100**	170	**250**	36	
127-18-4	Tetrachloroethene	**740**	170	**110**	25	
108-90-7	Chlorobenzene	ND	170	ND	37	
100-41-4	Ethylbenzene	**750**	170	**170**	39	
179601-23-1	m,p-Xylenes	**2,700**	340	**610**	78	
75-25-2	Bromoform	ND	170	ND	16	
100-42-5	Styrene	ND	170	ND	40	
95-47-6	o-Xylene	**920**	170	**210**	39	
111-84-2	n-Nonane	**3,200**	170	**600**	32	
79-34-5	1,1,2,2-Tetrachloroethane	ND	170	ND	25	
98-82-8	Cumene	**240**	170	**48**	34	
80-56-8	alpha-Pinene	ND	170	ND	30	
103-65-1	n-Propylbenzene	**810**	170	**170**	34	
622-96-8	4-Ethyltoluene	**1,300**	170	**250**	34	
108-67-8	1,3,5-Trimethylbenzene	**1,100**	170	**220**	34	
95-63-6	1,2,4-Trimethylbenzene	**2,300**	170	**480**	34	
100-44-7	Benzyl Chloride	ND	170	ND	33	
541-73-1	1,3-Dichlorobenzene	ND	170	ND	28	
106-46-7	1,4-Dichlorobenzene	ND	170	ND	28	
95-50-1	1,2-Dichlorobenzene	ND	170	ND	28	
5989-27-5	d-Limonene	**530**	170	**95**	30	
96-12-8	1,2-Dibromo-3-chloropropane	ND	170	ND	17	
120-82-1	1,2,4-Trichlorobenzene	ND	170	ND	23	
91-20-3	Naphthalene	ND	170	ND	32	
87-68-3	Hexachlorobutadiene	ND	170	ND	16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-2-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-010

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.040 Liter(s)
Test Notes: 0.020 Liter(s)
Container ID: SC00836

Initial Pressure (psig): -9.69 Final Pressure (psig): 3.56

Canister Dilution Factor: 3.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**480**	46	**280**	26	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	46	ND	9.2	
74-87-3	Chloromethane	ND	46	ND	22	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	46	ND	6.5	
75-01-4	Vinyl Chloride	ND	46	ND	18	
106-99-0	1,3-Butadiene	ND	46	ND	21	
74-83-9	Bromomethane	ND	46	ND	12	
75-00-3	Chloroethane	ND	46	ND	17	
64-17-5	Ethanol	ND	460	ND	240	
75-05-8	Acetonitrile	ND	46	ND	27	
107-02-8	Acrolein	ND	180	ND	79	
67-64-1	Acetone	**20,000**	460	**8,300**	190	
75-69-4	Trichlorofluoromethane	ND	46	ND	8.1	
67-63-0	2-Propanol (Isopropyl Alcohol)	**4,600**	460	**1,900**	190	
107-13-1	Acrylonitrile	ND	46	ND	21	
75-35-4	1,1-Dichloroethene	ND	46	ND	11	
75-09-2	Methylene Chloride	ND	46	ND	13	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	46	ND	15	
76-13-1	Trichlorotrifluoroethane	ND	46	ND	5.9	
75-15-0	Carbon Disulfide	ND	460	ND	150	
156-60-5	trans-1,2-Dichloroethene	ND	46	ND	11	
75-34-3	1,1-Dichloroethane	ND	46	ND	11	
1634-04-4	Methyl tert-Butyl Ether	ND	46	ND	13	
108-05-4	Vinyl Acetate	ND	460	ND	130	
78-93-3	2-Butanone (MEK)	ND	460	ND	150	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-2-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-010

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.040 Liter(s)
Test Notes: 0.020 Liter(s)
Container ID: SC00836

Initial Pressure (psig): -9.69 Final Pressure (psig): 3.56

Canister Dilution Factor: 3.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	46	ND	11	
141-78-6	Ethyl Acetate	**180**	91	**49**	25	
110-54-3	n-Hexane	**17,000**	91	**4,800**	26	**D**
67-66-3	Chloroform	ND	46	ND	9.3	
109-99-9	Tetrahydrofuran (THF)	ND	46	ND	15	
107-06-2	1,2-Dichloroethane	ND	46	ND	11	
71-55-6	1,1,1-Trichloroethane	ND	46	ND	8.3	
71-43-2	Benzene	ND	46	ND	14	
56-23-5	Carbon Tetrachloride	ND	46	ND	7.2	
110-82-7	Cyclohexane	**9,600**	91	**2,800**	26	
78-87-5	1,2-Dichloropropane	ND	46	ND	9.8	
75-27-4	Bromodichloromethane	ND	46	ND	6.8	
79-01-6	Trichloroethene	ND	46	ND	8.5	
123-91-1	1,4-Dioxane	ND	46	ND	13	
80-62-6	Methyl Methacrylate	ND	91	ND	22	
142-82-5	n-Heptane	**6,000**	46	**1,500**	11	
10061-01-5	cis-1,3-Dichloropropene	ND	46	ND	10	
108-10-1	4-Methyl-2-pentanone	**2,900**	46	**700**	11	
10061-02-6	trans-1,3-Dichloropropene	ND	46	ND	10	
79-00-5	1,1,2-Trichloroethane	ND	46	ND	8.3	
108-88-3	Toluene	**8,300**	46	**2,200**	12	
591-78-6	2-Hexanone	ND	46	ND	11	
124-48-1	Dibromochloromethane	ND	46	ND	5.3	
106-93-4	1,2-Dibromoethane	ND	46	ND	5.9	
123-86-4	n-Butyl Acetate	**85**	46	**18**	9.6	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Washer-2-2**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00836

Date Collected: 11/29/12
Date Received: 12/4/12
Date Analyzed: 12/6 - 12/7/12
Volume(s) Analyzed: 0.040 Liter(s)
0.020 Liter(s)

Initial Pressure (psig): -9.69 Final Pressure (psig): 3.56

Canister Dilution Factor: 3.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**260**	46	**55**	9.7	
127-18-4	Tetrachloroethene	**3,300**	46	**490**	6.7	
108-90-7	Chlorobenzene	ND	46	ND	9.9	
100-41-4	Ethylbenzene	**1,400**	46	**320**	10	
179601-23-1	m,p-Xylenes	**4,600**	91	**1,100**	21	
75-25-2	Bromoform	ND	46	ND	4.4	
100-42-5	Styrene	ND	46	ND	11	
95-47-6	o-Xylene	**2,000**	46	**470**	10	
111-84-2	n-Nonane	**5,200**	46	**990**	8.7	
79-34-5	1,1,2,2-Tetrachloroethane	ND	46	ND	6.6	
98-82-8	Cumene	**810**	46	**170**	9.3	
80-56-8	alpha-Pinene	ND	46	ND	8.2	
103-65-1	n-Propylbenzene	**2,800**	46	**560**	9.3	
622-96-8	4-Ethyltoluene	**3,500**	46	**710**	9.3	
108-67-8	1,3,5-Trimethylbenzene	**3,600**	46	**730**	9.3	
95-63-6	1,2,4-Trimethylbenzene	**7,500**	46	**1,500**	9.3	
100-44-7	Benzyl Chloride	ND	46	ND	8.8	
541-73-1	1,3-Dichlorobenzene	ND	46	ND	7.6	
106-46-7	1,4-Dichlorobenzene	ND	46	ND	7.6	
95-50-1	1,2-Dichlorobenzene	ND	46	ND	7.6	
5989-27-5	d-Limonene	**320**	46	**57**	8.2	
96-12-8	1,2-Dibromo-3-chloropropane	ND	46	ND	4.7	
120-82-1	1,2,4-Trichlorobenzene	ND	46	ND	6.1	
91-20-3	Naphthalene	ND	46	ND	8.7	
87-68-3	Hexachlorobutadiene	ND	46	ND	4.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Dryer-2B** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-012

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC00825

Initial Pressure (psig): -10.14 Final Pressure (psig): 3.61

Canister Dilution Factor: 4.02

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	50	ND	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.8	
67-64-1	Acetone	**380**	50	**160**	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.66	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Dryer-2B** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-012

Test Code: EPA TO-15 Date Collected: 11/29/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC00825

Initial Pressure (psig): -10.14 Final Pressure (psig): 3.61

Canister Dilution Factor: 4.02

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	**12**	5.0	**3.4**	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.94	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.5	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	**68**	5.0	**18**	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Dryer-2B**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P1204977-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00825

Date Collected: 11/29/12
Date Received: 12/4/12
Date Analyzed: 12/6/12
Volume(s) Analyzed: 0.40 Liter(s)

Initial Pressure (psig): -10.14 Final Pressure (psig): 3.61

Canister Dilution Factor: 4.02

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**23**	5.0	**5.0**	1.1	
127-18-4	Tetrachloroethene	**5.7**	5.0	**0.85**	0.74	
108-90-7	Chlorobenzene	ND	5.0	ND	1.1	
100-41-4	Ethylbenzene	**19**	5.0	**4.5**	1.2	
179601-23-1	m,p-Xylenes	**89**	10	**20**	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.49	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	**43**	5.0	**10**	1.2	
111-84-2	n-Nonane	**270**	5.0	**51**	0.96	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	**23**	5.0	**4.8**	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	**140**	5.0	**28**	1.0	
622-96-8	4-Ethyltoluene	**250**	5.0	**51**	1.0	
108-67-8	1,3,5-Trimethylbenzene	**300**	5.0	**60**	1.0	
95-63-6	1,2,4-Trimethylbenzene	**820**	5.0	**170**	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.84	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.84	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.84	
5989-27-5	d-Limonene	**220**	5.0	**39**	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.68	
91-20-3	Naphthalene	**21**	5.0	**4.0**	0.96	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **Method Blank**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P121206-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/6/12
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **Method Blank** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **Method Blank**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P121206-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/6/12
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **Method Blank** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **Method Blank** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/6/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Client: **TRC Environmental Corporation**
Client Sample ID: **Method Blank**
Client Project ID: **G&K / 193461.0000.0000**

CAS Project ID: P1204977
CAS Sample ID: P121206-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/6/12
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

SURROGATE SPIKE RECOVERY RESULTS

Client: **TRC Environmental Corporation**
Client Project ID: **G&K / 193461.0000.0000**
CAS Project ID: P1204977

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Elsa Moctezuma
Sample Type: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 11/28 - 11/29/12
Date(s) Received: 12/4/12
Date(s) Analyzed: 12/6/12

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P121206-MB	**99**	**100**	**102**	70-130	
Method Blank	P121206-MB	**102**	**99**	**102**	70-130	
Lab Control Sample	P121206-LCS	**97**	**100**	**103**	70-130	
Lab Control Sample	P121206-LCS	**102**	**99**	**102**	70-130	
TO-15-Room Air-1	P1204977-001	**101**	**96**	**102**	70-130	
TO-15-Room Air-2	P1204977-002	**100**	**98**	**104**	70-130	
TO-15-Room Air-2	P1204977-002DUP	**99**	**97**	**105**	70-130	
TO-15-Washer-1-1	P1204977-003	**100**	**99**	**102**	70-130	
TO-15-Washer-2-1	P1204977-004	**100**	**99**	**103**	70-130	
TO-15-Dryer-1B	P1204977-006	**101**	**102**	**95**	70-130	
TO-15-Room Air-3	P1204977-007	**99**	**100**	**97**	70-130	
TO-15-Room Air-4	P1204977-008	**100**	**100**	**97**	70-130	
TO-15-Washer-1-2	P1204977-009	**101**	**98**	**103**	70-130	
TO-15-Washer-2-2	P1204977-010	**98**	**101**	**98**	70-130	
TO-15-Dryer-2B	P1204977-012	**99**	**101**	**99**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **TRC Environmental Corporation**
Client Sample ID: **Lab Control Sample** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/06/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	CAS Acceptance Limits	Data Qualifier
115-07-1	Propene	204	**206**	**101**	59-137	
75-71-8	Dichlorodifluoromethane (CFC 12)	202	**187**	**93**	63-115	
74-87-3	Chloromethane	196	**174**	**89**	59-124	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**191**	**93**	65-113	
75-01-4	Vinyl Chloride	200	**181**	**91**	59-121	
106-99-0	1,3-Butadiene	210	**181**	**86**	60-138	
74-83-9	Bromomethane	200	**182**	**91**	69-129	
75-00-3	Chloroethane	202	**186**	**92**	60-120	
64-17-5	Ethanol	958	**846**	**88**	58-121	
75-05-8	Acetonitrile	202	**186**	**92**	64-129	
107-02-8	Acrolein	204	**174**	**85**	54-127	
67-64-1	Acetone	1,040	**961**	**92**	59-114	
75-69-4	Trichlorofluoromethane	210	**179**	**85**	66-108	
67-63-0	2-Propanol (Isopropyl Alcohol)	396	**337**	**85**	50-113	
107-13-1	Acrylonitrile	206	**203**	**99**	72-135	
75-35-4	1,1-Dichloroethene	218	**205**	**94**	70-117	
75-09-2	Methylene Chloride	212	**195**	**92**	61-108	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**180**	**84**	70-131	
76-13-1	Trichlorotrifluoroethane	212	**209**	**99**	70-113	
75-15-0	Carbon Disulfide	208	**195**	**94**	65-112	
156-60-5	trans-1,2-Dichloroethene	202	**187**	**93**	71-119	
75-34-3	1,1-Dichloroethane	206	**193**	**94**	71-116	
1634-04-4	Methyl tert-Butyl Ether	204	**215**	**105**	67-116	
108-05-4	Vinyl Acetate	988	**1130**	**114**	59-142	
78-93-3	2-Butanone (MEK)	212	**196**	**92**	68-125	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **TRC Environmental Corporation**
Client Sample ID: **Lab Control Sample** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/06/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	CAS Acceptance Limits	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	214	**198**	**93**	69-119	
141-78-6	Ethyl Acetate	412	**386**	**94**	63-130	
110-54-3	n-Hexane	206	**187**	**91**	57-120	
67-66-3	Chloroform	222	**195**	**88**	69-111	
109-99-9	Tetrahydrofuran (THF)	208	**204**	**98**	57-123	
107-06-2	1,2-Dichloroethane	208	**191**	**92**	70-118	
71-55-6	1,1,1-Trichloroethane	204	**189**	**93**	73-119	
71-43-2	Benzene	208	**199**	**96**	66-121	
56-23-5	Carbon Tetrachloride	212	**197**	**93**	74-129	
110-82-7	Cyclohexane	402	**378**	**94**	70-113	
78-87-5	1,2-Dichloropropane	204	**192**	**94**	69-118	
75-27-4	Bromodichloromethane	204	**195**	**96**	75-124	
79-01-6	Trichloroethene	198	**192**	**97**	73-115	
123-91-1	1,4-Dioxane	206	**202**	**98**	71-123	
80-62-6	Methyl Methacrylate	414	**412**	**100**	72-127	
142-82-5	n-Heptane	202	**192**	**95**	68-120	
10061-01-5	cis-1,3-Dichloropropene	196	**191**	**97**	71-130	
108-10-1	4-Methyl-2-pentanone	210	**198**	**94**	69-130	
10061-02-6	trans-1,3-Dichloropropene	218	**223**	**102**	76-133	
79-00-5	1,1,2-Trichloroethane	202	**194**	**96**	73-120	
108-88-3	Toluene	208	**199**	**96**	67-111	
591-78-6	2-Hexanone	228	**201**	**88**	70-123	
124-48-1	Dibromochloromethane	216	**215**	**100**	75-129	
106-93-4	1,2-Dibromoethane	208	**205**	**99**	73-122	
123-86-4	n-Butyl Acetate	228	**202**	**89**	68-132	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **TRC Environmental Corporation**
Client Sample ID: **Lab Control Sample** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/06/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	CAS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	206	**197**	**96**	68-116	
127-18-4	Tetrachloroethene	190	**185**	**97**	67-119	
108-90-7	Chlorobenzene	208	**200**	**96**	69-113	
100-41-4	Ethylbenzene	206	**199**	**97**	71-117	
179601-23-1	m,p-Xylenes	412	**385**	**93**	70-116	
75-25-2	Bromoform	216	**206**	**95**	69-127	
100-42-5	Styrene	208	**210**	**101**	71-125	
95-47-6	o-Xylene	200	**188**	**94**	70-116	
111-84-2	n-Nonane	202	**184**	**91**	68-116	
79-34-5	1,1,2,2-Tetrachloroethane	198	**190**	**96**	70-119	
98-82-8	Cumene	196	**191**	**97**	70-116	
80-56-8	alpha-Pinene	192	**188**	**98**	71-119	
103-65-1	n-Propylbenzene	198	**188**	**95**	71-119	
622-96-8	4-Ethyltoluene	204	**194**	**95**	71-119	
108-67-8	1,3,5-Trimethylbenzene	208	**205**	**99**	71-121	
95-63-6	1,2,4-Trimethylbenzene	200	**200**	**100**	73-127	
100-44-7	Benzyl Chloride	206	**195**	**95**	65-137	
541-73-1	1,3-Dichlorobenzene	206	**200**	**97**	68-123	
106-46-7	1,4-Dichlorobenzene	212	**203**	**96**	65-120	
95-50-1	1,2-Dichlorobenzene	204	**197**	**97**	67-121	
5989-27-5	d-Limonene	206	**213**	**103**	67-130	
96-12-8	1,2-Dibromo-3-chloropropane	202	**214**	**106**	72-133	
120-82-1	1,2,4-Trichlorobenzene	200	**201**	**101**	62-133	
91-20-3	Naphthalene	178	**178**	**100**	56-138	
87-68-3	Hexachlorobutadiene	208	**201**	**97**	60-128	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **TRC Environmental Corporation**
Client Sample ID: **Lab Control Sample** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/06/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	CAS Acceptance Limits	Data Qualifier
115-07-1	Propene	204	**219**	**107**	59-137	
75-71-8	Dichlorodifluoromethane (CFC 12)	202	**203**	**100**	63-115	
74-87-3	Chloromethane	196	**188**	**96**	59-124	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**199**	**97**	65-113	
75-01-4	Vinyl Chloride	200	**191**	**96**	59-121	
106-99-0	1,3-Butadiene	210	**195**	**93**	60-138	
74-83-9	Bromomethane	200	**187**	**94**	69-129	
75-00-3	Chloroethane	202	**195**	**97**	60-120	
64-17-5	Ethanol	958	**871**	**91**	58-121	
75-05-8	Acetonitrile	202	**196**	**97**	64-129	
107-02-8	Acrolein	204	**180**	**88**	54-127	
67-64-1	Acetone	1,040	**994**	**96**	59-114	
75-69-4	Trichlorofluoromethane	210	**191**	**91**	66-108	
67-63-0	2-Propanol (Isopropyl Alcohol)	396	**363**	**92**	50-113	
107-13-1	Acrylonitrile	206	**209**	**101**	72-135	
75-35-4	1,1-Dichloroethene	218	**211**	**97**	70-117	
75-09-2	Methylene Chloride	212	**201**	**95**	61-108	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**189**	**88**	70-131	
76-13-1	Trichlorotrifluoroethane	212	**213**	**100**	70-113	
75-15-0	Carbon Disulfide	208	**202**	**97**	65-112	
156-60-5	trans-1,2-Dichloroethene	202	**198**	**98**	71-119	
75-34-3	1,1-Dichloroethane	206	**202**	**98**	71-116	
1634-04-4	Methyl tert-Butyl Ether	204	**224**	**110**	67-116	
108-05-4	Vinyl Acetate	988	**1140**	**115**	59-142	
78-93-3	2-Butanone (MEK)	212	**199**	**94**	68-125	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **TRC Environmental Corporation**
Client Sample ID: **Lab Control Sample** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/06/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	CAS Acceptance Limits	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	214	**206**	**96**	69-119	
141-78-6	Ethyl Acetate	412	**397**	**96**	63-130	
110-54-3	n-Hexane	206	**195**	**95**	57-120	
67-66-3	Chloroform	222	**204**	**92**	69-111	
109-99-9	Tetrahydrofuran (THF)	208	**210**	**101**	57-123	
107-06-2	1,2-Dichloroethane	208	**203**	**98**	70-118	
71-55-6	1,1,1-Trichloroethane	204	**198**	**97**	73-119	
71-43-2	Benzene	208	**202**	**97**	66-121	
56-23-5	Carbon Tetrachloride	212	**206**	**97**	74-129	
110-82-7	Cyclohexane	402	**385**	**96**	70-113	
78-87-5	1,2-Dichloropropane	204	**198**	**97**	69-118	
75-27-4	Bromodichloromethane	204	**204**	**100**	75-124	
79-01-6	Trichloroethene	198	**194**	**98**	73-115	
123-91-1	1,4-Dioxane	206	**207**	**100**	71-123	
80-62-6	Methyl Methacrylate	414	**416**	**100**	72-127	
142-82-5	n-Heptane	202	**197**	**98**	68-120	
10061-01-5	cis-1,3-Dichloropropene	196	**197**	**101**	71-130	
108-10-1	4-Methyl-2-pentanone	210	**203**	**97**	69-130	
10061-02-6	trans-1,3-Dichloropropene	218	**229**	**105**	76-133	
79-00-5	1,1,2-Trichloroethane	202	**198**	**98**	73-120	
108-88-3	Toluene	208	**197**	**95**	67-111	
591-78-6	2-Hexanone	228	**202**	**89**	70-123	
124-48-1	Dibromochloromethane	216	**213**	**99**	75-129	
106-93-4	1,2-Dibromoethane	208	**202**	**97**	73-122	
123-86-4	n-Butyl Acetate	228	**203**	**89**	68-132	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **TRC Environmental Corporation**
Client Sample ID: **Lab Control Sample** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P121206-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 12/06/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	CAS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	206	**197**	**96**	68-116	
127-18-4	Tetrachloroethene	190	**181**	**95**	67-119	
108-90-7	Chlorobenzene	208	**198**	**95**	69-113	
100-41-4	Ethylbenzene	206	**198**	**96**	71-117	
179601-23-1	m,p-Xylenes	412	**387**	**94**	70-116	
75-25-2	Bromoform	216	**204**	**94**	69-127	
100-42-5	Styrene	208	**209**	**100**	71-125	
95-47-6	o-Xylene	200	**190**	**95**	70-116	
111-84-2	n-Nonane	202	**186**	**92**	68-116	
79-34-5	1,1,2,2-Tetrachloroethane	198	**192**	**97**	70-119	
98-82-8	Cumene	196	**191**	**97**	70-116	
80-56-8	alpha-Pinene	192	**188**	**98**	71-119	
103-65-1	n-Propylbenzene	198	**188**	**95**	71-119	
622-96-8	4-Ethyltoluene	204	**188**	**92**	71-119	
108-67-8	1,3,5-Trimethylbenzene	208	**204**	**98**	71-121	
95-63-6	1,2,4-Trimethylbenzene	200	**201**	**101**	73-127	
100-44-7	Benzyl Chloride	206	**197**	**96**	65-137	
541-73-1	1,3-Dichlorobenzene	206	**202**	**98**	68-123	
106-46-7	1,4-Dichlorobenzene	212	**200**	**94**	65-120	
95-50-1	1,2-Dichlorobenzene	204	**197**	**97**	67-121	
5989-27-5	d-Limonene	206	**225**	**109**	67-130	
96-12-8	1,2-Dibromo-3-chloropropane	202	**209**	**103**	72-133	
120-82-1	1,2,4-Trichlorobenzene	200	**197**	**99**	62-133	
91-20-3	Naphthalene	178	**176**	**99**	56-138	
87-68-3	Hexachlorobutadiene	208	**199**	**96**	60-128	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-002DUP

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.070 Liter(s)
Test Notes: 0.035 Liter(s)
Container ID: SC01500

Initial Pressure (psig): -4.39 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.77

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average µg/m³	% RPD	RPD Limit	Data Qualifier
Propene	ND	ND	ND	ND	-	-	25	
Dichlorodifluoromethane (CFC 12)	ND	ND	ND	ND	-	-	25	
Chloromethane	ND	ND	ND	ND	-	-	25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	ND	ND	ND	-	-	25	
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
1,3-Butadiene	ND	ND	ND	ND	-	-	25	
Bromomethane	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
Ethanol	631	335	631	335	631	**0**	25	
Acetonitrile	ND	ND	ND	ND	-	-	25	
Acrolein	ND	ND	ND	ND	-	-	25	
Acetone	223	93.8	223	94.1	223	**0**	25	
Trichlorofluoromethane	ND	ND	ND	ND	-	-	25	
2-Propanol (Isopropyl Alcohol)	331	135	330	134	330.5	**0.3**	25	
Acrylonitrile	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
Methylene Chloride	ND	ND	ND	ND	-	-	25	
3-Chloro-1-propene (Allyl Chloride)	ND	ND	ND	ND	-	-	25	
Trichlorotrifluoroethane	ND	ND	ND	ND	-	-	25	
Carbon Disulfide	ND	ND	ND	ND	-	-	25	
trans-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
Methyl tert-Butyl Ether	ND	ND	ND	ND	-	-	25	
Vinyl Acetate	ND	ND	ND	ND	-	-	25	
2-Butanone (MEK)	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-002DUP

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.070 Liter(s)
Test Notes: 0.035 Liter(s)
Container ID: SC01500

Initial Pressure (psig): -4.39 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.77

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average µg/m³	% RPD	RPD Limit	Data Qualifier
cis-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
Ethyl Acetate	ND	ND	ND	ND	-	-	25	
n-Hexane	15.9	4.51	15.7	4.46	15.8	**1**	25	
Chloroform	ND	ND	ND	ND	-	-	25	
Tetrahydrofuran (THF)	ND	ND	ND	ND	-	-	25	
1,2-Dichloroethane	18.1	4.48	18.1	4.46	18.1	**0**	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	
Benzene	ND	ND	ND	ND	-	-	25	
Carbon Tetrachloride	ND	ND	ND	ND	-	-	25	
Cyclohexane	ND	ND	ND	ND	-	-	25	
1,2-Dichloropropane	ND	ND	ND	ND	-	-	25	
Bromodichloromethane	ND	ND	ND	ND	-	-	25	
Trichloroethene	ND	ND	ND	ND	-	-	25	
1,4-Dioxane	ND	ND	ND	ND	-	-	25	
Methyl Methacrylate	ND	ND	ND	ND	-	-	25	
n-Heptane	228	55.7	226	55.3	227	**0.9**	25	
cis-1,3-Dichloropropene	ND	ND	ND	ND	-	-	25	
4-Methyl-2-pentanone	47.0	11.5	48.5	11.8	47.75	**3**	25	
trans-1,3-Dichloropropene	ND	ND	ND	ND	-	-	25	
1,1,2-Trichloroethane	ND	ND	ND	ND	-	-	25	
Toluene	3,580	949	3,560	944	3570	**0.6**	25	**D**
2-Hexanone	ND	ND	ND	ND	-	-	25	
Dibromochloromethane	ND	ND	ND	ND	-	-	25	
1,2-Dibromoethane	ND	ND	ND	ND	-	-	25	
n-Butyl Acetate	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **TRC Environmental Corporation**
Client Sample ID: **TO-15-Room Air-2** CAS Project ID: P1204977
Client Project ID: **G&K / 193461.0000.0000** CAS Sample ID: P1204977-002DUP

Test Code: EPA TO-15 Date Collected: 11/28/12
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 12/4/12
Analyst: Elsa Moctezuma Date Analyzed: 12/6 - 12/7/12
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.070 Liter(s)
Test Notes: 0.035 Liter(s)
Container ID: SC01500

Initial Pressure (psig): -4.39 Final Pressure (psig): 3.51

Canister Dilution Factor: 1.77

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average µg/m³	% RPD	RPD Limit	Data Qualifier
n-Octane	38.0	8.14	38.6	8.26	38.3	**2**	25	
Tetrachloroethene	1,050	155	1,060	156	1055	**0.9**	25	
Chlorobenzene	ND	ND	ND	ND	-	-	25	
Ethylbenzene	77.2	17.8	77.0	17.7	77.1	**0.3**	25	
m,p-Xylenes	270	62.3	272	62.6	271	**0.7**	25	
Bromoform	ND	ND	ND	ND	-	-	25	
Styrene	ND	ND	ND	ND	-	-	25	
o-Xylene	100	23.1	99.8	23.0	99.9	**0.2**	25	
n-Nonane	143	27.2	145	27.7	144	**1**	25	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	-	-	25	
Cumene	ND	ND	ND	ND	-	-	25	
alpha-Pinene	ND	ND	ND	ND	-	-	25	
n-Propylbenzene	44.4	9.03	44.2	9.00	44.3	**0.5**	25	
4-Ethyltoluene	75.4	15.3	77.9	15.9	76.65	**3**	25	
1,3,5-Trimethylbenzene	81.5	16.6	82.8	16.8	82.15	**2**	25	
1,2,4-Trimethylbenzene	232	47.2	234	47.7	233	**0.9**	25	
Benzyl Chloride	ND	ND	ND	ND	-	-	25	
1,3-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,4-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,2-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
d-Limonene	160	28.7	161	28.8	160.5	**0.6**	25	
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	-	-	25	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	-	-	25	
Naphthalene	14.2	2.72	14.7	2.80	14.45	**3**	25	
Hexachlorobutadiene	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

December 18, 2012 Analytical Report for Service Request No: P1204977

Kate Aguilera
Columbia Analytical Services
2655 Park Center Drive, Suite A
Simi Valley, CA 93065

RE: G&K/193461.0000.0000

Dear Kate:

Enclosed are the results of the samples submitted to our laboratory on December 04, 2012. For your reference, these analyses have been assigned our service request number P1204977.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3291. You may also contact me via Email at Ed.Wallace@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

For

Ed Wallace
Project Manager

EW/ln

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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2286
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Georgia DNR	http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
Indiana DOH	http://www.in.gov/isdh/24859.htm	C-WA-01
ISO 17025	http://www.pjlabs.com/	L12-27
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-368
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA35
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
New Mexico ED	http://www.nmenv.state.nm.us/dwb/Index.htm	-
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA200001
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	704427-08-TX
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.caslab.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.caslab.com or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

ALS ENVIRONMENTAL

Client:	TRC Environmental Corporation	**Service Request No.:**	P1204977
Project:	G&K/ 193461.0000.0000	**Date Received:**	12/06/12
Sample Matrix:	Water		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

Sample Receipt

Two water samples were received for analysis at ALS Environmental in Kelso, Washington on 12/06/12. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Volatile Organic Compounds by EPA Method 8260

Calibration Verification Exceptions:
The following analyte was flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) MS27\1210F003.D: Naphthalene. In accordance with the EPA Method 8270D, 80% or more of the CCV analytes must have passed within 20% of the true value. The remaining analytes are allowed a 40% difference as per the CAS SOP. The CCV met these criteria.

Elevated Detection Limits:
The detection limits for samples TO-15-Dryer-1A and TO-15-Dryer-2A were elevated due to less than optimal sample volume available for analysis.

No other anomalies associated with the analysis of these samples were observed.

Approved by_____

Intra-Network Chain of Custody

2655 Park Center Drive, Suite A • Simi Valley, CA 93065 • 805-526-7161 • FAX 805-526-7270

ALS Contact: Kate Aguilera

Project Name: G&K
Project Number: 193461.0000.0000
Project Manager: Raymond Potter
Company: TRC Environmental Corporation

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Date Received	Send To	SCREEN_VOAGCMS Screen VOA GCMS	VOC Unp 8260C
P1204977-005	TO-15-Dryer-1A		Water	11/28/12	0000	12/4/12	KELSO	II	II
P1204977-011	TO-15-Dryer-2A		Water	11/29/12	0000	12/4/12	KELSO	II	II

Test Comments
VOC Unp - 8260C P1204977-005,11 Standard List ~~plus TICs~~ No TICs (KA)

Folder Comments:
may add some compounds which are included on the8260C List

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
	___ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ___ STANDARD Requested FAX Date: _____ Requested Report Date: 12/15/12	___ I. Results Only ___ II. Results + QC Summaries ___ III. Results + QC and Calibration Summaries ___ IV. Data Validation Report with Raw Data PQL/MDL/J N EDD N	PO# P1204977 Bill to

Relinquished By: [signature] 12/5/12 1320 Received By: [signature] 12/6/12 920 Airbill Number: _____

Page 1

Intra-Network Chain of Custody

2655 Park Center Drive, Suite A • Simi Valley, CA 93065 • 805-526-7161 • FAX 805-526-7270

ALS Contact: Kate Aguilera

Project Name: G&K
Project Number: 193461.0000.0000
Project Manager: Raymond Potter
Company: TRC Environmental Corporation

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Date Received	Send To

Ship To: KELSO

Columbia Analytical Services
1317 South 13th Avenue
Kelso WA, 98626

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
	RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ___ STANDARD Requested FAX Date: _____ Requested Report Date: 12/15/12	___ I. Results Only ___ II. Results + QC Summaries ___ III. Results + QC and Calibration Summaries ___ IV. Data Validation Report with Raw Data PQL/MDL/J N EDD N	PO# P1204977 Bill to

Relinquished By: _____ Received By: _____ Airbill Number: _____

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Page 2

PC Ed

Cooler Receipt and Preservation Form

Client / Project: ALS - Simi Valley Service Request ~~K12~~ P1204977

Received: 12/6/12 Opened: 12/6/12 By: SD Unloaded: 12/6/12 By: SD

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Temp	Corr. Temp	Raw Blank	Corr. Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
1.4	1.4	—	—	0	323		518882F8774	
						SHORT HOLD TIME		

7. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Results

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	11/28/2012
Sample Matrix:	Water	**Date Received:**	12/04/2012

Volatile Organic Compounds

Sample Name:	TO-15-Dryer-1A	**Units:**	ug/L
Lab Code:	P1204977-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Chloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Vinyl Chloride	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromomethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Chloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Trichlorofluoromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1-Dichloroethene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Acetone	ND	U	100	5	12/10/12	12/10/12	KWG1214479	
Carbon Disulfide	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Methylene Chloride	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
trans-1,2-Dichloroethene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1-Dichloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2,2-Dichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
cis-1,2-Dichloroethene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2-Butanone (MEK)	ND	U	100	5	12/10/12	12/10/12	KWG1214479	
Bromochloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Chloroform	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1,1-Trichloroethane (TCA)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Carbon Tetrachloride	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1-Dichloropropene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Benzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dichloroethane (EDC)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Trichloroethene (TCE)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Dibromomethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromodichloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
cis-1,3-Dichloropropene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
4-Methyl-2-pentanone (MIBK)	ND	U	100	5	12/10/12	12/10/12	KWG1214479	
Toluene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
trans-1,3-Dichloropropene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1,2-Trichloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Tetrachloroethene (PCE)	**9.8**	D	2.5	5	12/10/12	12/10/12	KWG1214479	
2-Hexanone	ND	U	100	5	12/10/12	12/10/12	KWG1214479	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.
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Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	11/28/2012
Sample Matrix:	Water	**Date Received:**	12/04/2012

Volatile Organic Compounds

Sample Name:	TO-15-Dryer-1A	**Units:**	ug/L
Lab Code:	P1204977-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Dibromochloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dibromoethane (EDB)	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
Chlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Ethylbenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1,1,2-Tetrachloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
m,p-Xylenes	**3.4**	D	2.5	5	12/10/12	12/10/12	KWG1214479	
o-Xylene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Styrene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromoform	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Isopropylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,1,2,2-Tetrachloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromobenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
n-Propylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2,3-Trichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2-Chlorotoluene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,3,5-Trimethylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
4-Chlorotoluene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
tert-Butylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2,4-Trimethylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
sec-Butylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
4-Isopropyltoluene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,3-Dichlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,4-Dichlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
n-Butylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2-Dichlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dibromo-3-chloropropane	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2,4-Trichlorobenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
Hexachlorobutadiene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
Naphthalene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	*
1,2,3-Trichlorobenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	

* See Case Narrative

Comments:

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	11/28/2012
Sample Matrix:	Water	**Date Received:**	12/04/2012

Volatile Organic Compounds

Sample Name:	TO-15-Dryer-1A	**Units:**	ug/L
Lab Code:	P1204977-005	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	12/10/12	Acceptable
Toluene-d8	97	65-144	12/10/12	Acceptable
4-Bromofluorobenzene	97	68-117	12/10/12	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.
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Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	11/29/2012
Sample Matrix:	Water	**Date Received:**	12/04/2012

Volatile Organic Compounds

Sample Name:	TO-15-Dryer-2A	**Units:**	ug/L
Lab Code:	P1204977-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Chloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Vinyl Chloride	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromomethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Chloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Trichlorofluoromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1-Dichloroethene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Acetone	**1100**	D	100	5	12/10/12	12/10/12	KWG1214479	
Carbon Disulfide	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Methylene Chloride	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
trans-1,2-Dichloroethene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1-Dichloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2,2-Dichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
cis-1,2-Dichloroethene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2-Butanone (MEK)	ND	U	100	5	12/10/12	12/10/12	KWG1214479	
Bromochloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Chloroform	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1,1-Trichloroethane (TCA)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Carbon Tetrachloride	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1-Dichloropropene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Benzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dichloroethane (EDC)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Trichloroethene (TCE)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Dibromomethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromodichloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
cis-1,3-Dichloropropene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
4-Methyl-2-pentanone (MIBK)	ND	U	100	5	12/10/12	12/10/12	KWG1214479	
Toluene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
trans-1,3-Dichloropropene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1,2-Trichloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Tetrachloroethene (PCE)	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2-Hexanone	ND	U	100	5	12/10/12	12/10/12	KWG1214479	

Comments:

Client: TRC Environmental Corporation
Project: G&K/193461.0000.0000
Sample Matrix: Water

Service Request: P1204977
Date Collected: 11/29/2012
Date Received: 12/04/2012

Volatile Organic Compounds

Sample Name: TO-15-Dryer-2A
Lab Code: P1204977-011

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Dibromochloromethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dibromoethane (EDB)	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
Chlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Ethylbenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,1,1,2-Tetrachloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
m,p-Xylenes	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
o-Xylene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Styrene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromoform	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Isopropylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,1,2,2-Tetrachloroethane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
Bromobenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
n-Propylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2,3-Trichloropropane	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
2-Chlorotoluene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,3,5-Trimethylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
4-Chlorotoluene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
tert-Butylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2,4-Trimethylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
sec-Butylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
4-Isopropyltoluene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,3-Dichlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,4-Dichlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
n-Butylbenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2-Dichlorobenzene	ND	U	2.5	5	12/10/12	12/10/12	KWG1214479	
1,2-Dibromo-3-chloropropane	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
1,2,4-Trichlorobenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
Hexachlorobutadiene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	
Naphthalene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	*
1,2,3-Trichlorobenzene	ND	U	10	5	12/10/12	12/10/12	KWG1214479	

* See Case Narrative

Comments:

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	11/29/2012
Sample Matrix:	Water	**Date Received:**	12/04/2012

Volatile Organic Compounds

Sample Name:	TO-15-Dryer-2A	**Units:**	ug/L
Lab Code:	P1204977-011	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	12/10/12	Acceptable
Toluene-d8	98	65-144	12/10/12	Acceptable
4-Bromofluorobenzene	93	68-117	12/10/12	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Results

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1214479-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Chloromethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Vinyl Chloride	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Bromomethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Chloroethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Trichlorofluoromethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,1-Dichloroethene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Acetone	ND	U	20	1	12/10/12	12/10/12	KWG1214479	
Carbon Disulfide	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Methylene Chloride	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
trans-1,2-Dichloroethene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,1-Dichloroethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
2,2-Dichloropropane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
cis-1,2-Dichloroethene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
2-Butanone (MEK)	ND	U	20	1	12/10/12	12/10/12	KWG1214479	
Bromochloromethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Chloroform	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Carbon Tetrachloride	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,1-Dichloropropene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Benzene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Trichloroethene (TCE)	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,2-Dichloropropane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Dibromomethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Bromodichloromethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
cis-1,3-Dichloropropene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	12/10/12	12/10/12	KWG1214479	
Toluene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
trans-1,3-Dichloropropene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,1,2-Trichloroethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Tetrachloroethene (PCE)	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
2-Hexanone	ND	U	20	1	12/10/12	12/10/12	KWG1214479	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Results

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1214479-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Dibromochloromethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
Chlorobenzene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Ethylbenzene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
m,p-Xylenes	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
o-Xylene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Styrene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Bromoform	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Isopropylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
Bromobenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
n-Propylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,2,3-Trichloropropane	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
2-Chlorotoluene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,3,5-Trimethylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
4-Chlorotoluene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
tert-Butylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,2,4-Trimethylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
sec-Butylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
4-Isopropyltoluene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,3-Dichlorobenzene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,4-Dichlorobenzene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
n-Butylbenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,2-Dichlorobenzene	ND	U	0.50	1	12/10/12	12/10/12	KWG1214479	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
1,2,4-Trichlorobenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
Hexachlorobutadiene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	
Naphthalene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	*
1,2,3-Trichlorobenzene	ND	U	2.0	1	12/10/12	12/10/12	KWG1214479	

* See Case Narrative

Comments:

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1214479-4	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	12/10/12	Acceptable
Toluene-d8	96	65-144	12/10/12	Acceptable
4-Bromofluorobenzene	95	68-117	12/10/12	Acceptable

Comments:

Client: TRC Environmental Corporation
Project: G&K/193461.0000.0000
Sample Matrix: Water

Service Request: P1204977

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
Batch QC	K1212017-008	106	98	94
TO-15-Dryer-1A	P1204977-005	102	97	97
TO-15-Dryer-2A	P1204977-011	102	98	93
Method Blank	KWG1214479-4	101	96	95
Batch QCMS	KWG1214479-1	98	100	100
Batch QCDMS	KWG1214479-2	98	99	102
Lab Control Sample	KWG1214479-3	99	100	101

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	73-122
Sur2	=	Toluene-d8	65-144
Sur3	=	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.
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QA/QC Report

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Extracted:**	12/10/2012
Sample Matrix:	Water	**Date Analyzed:**	12/10/2012

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K1212017-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1214479

		Batch QCMS KWG1214479-1 Matrix Spike			Batch QCDMS KWG1214479-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Vinyl Chloride	ND	97.1	100	97	93.7	100	94	49-136	4	30
1,1-Dichloroethene	ND	110	100	110	105	100	105	59-171	4	30
Chloroform	ND	98.0	100	98	95.7	100	96	64-133	2	30
Carbon Tetrachloride	ND	99.7	100	100	92.2	100	92	53-161	8	30
Benzene	ND	90.9	100	91	86.4	100	86	63-144	5	30
Trichloroethene (TCE)	46	144	100	98	138	100	92	53-139	4	30
Bromodichloromethane	ND	95.5	100	96	96.7	100	97	61-134	1	30
Toluene	ND	97.2	100	97	94.2	100	94	71-136	3	30
1,1,2-Trichloroethane	ND	92.1	100	92	95.0	100	95	74-124	3	30
2-Hexanone	ND	420	500	84	488	500	98	53-132	15	30
Chlorobenzene	ND	96.1	100	96	94.5	100	95	69-126	2	30
Ethylbenzene	ND	99.1	100	99	95.1	100	95	66-136	4	30
1,2,3-Trichloropropane	ND	88.6	100	89	98.4	100	98	71-127	10	30
2-Chlorotoluene	ND	102	100	102	97.1	100	97	55-139	5	30
1,2-Dichlorobenzene	ND	97.3	100	97	95.6	100	96	72-119	2	30
Naphthalene	ND	73.8	100	74	79.6	100	80	52-147	8	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client:	TRC Environmental Corporation	**Service Request:**	P1204977
Project:	G&K/193461.0000.0000	**Date Extracted:**	12/10/2012
Sample Matrix:	Water	**Date Analyzed:**	12/10/2012

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1214479

	Lab Control Sample KWG1214479-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	7.37	10.0	74	32-124
Chloromethane	8.51	10.0	85	34-130
Vinyl Chloride	9.89	10.0	99	55-123
Bromomethane	9.02	10.0	90	35-113
Chloroethane	10.0	10.0	100	58-134
Trichlorofluoromethane	10.1	10.0	101	52-141
1,1-Dichloroethene	11.3	10.0	113	66-129
Acetone	51.3	50.0	103	68-135
Carbon Disulfide	19.4	20.0	97	46-144
Methylene Chloride	9.79	10.0	98	71-122
trans-1,2-Dichloroethene	10.2	10.0	102	67-125
1,1-Dichloroethane	9.98	10.0	100	68-132
2,2-Dichloropropane	10.5	10.0	105	37-145
cis-1,2-Dichloroethene	9.59	10.0	96	71-118
2-Butanone (MEK)	43.3	50.0	87	71-149
Bromochloromethane	9.44	10.0	94	75-131
Chloroform	9.90	10.0	99	70-129
1,1,1-Trichloroethane (TCA)	10.2	10.0	102	59-136
Carbon Tetrachloride	9.98	10.0	100	55-140
1,1-Dichloropropene	11.2	10.0	112	59-134
Benzene	9.00	10.0	90	69-124
1,2-Dichloroethane (EDC)	9.36	10.0	94	56-142
Trichloroethene (TCE)	10.2	10.0	102	67-128
1,2-Dichloropropane	9.74	10.0	97	67-126
Dibromomethane	9.17	10.0	92	69-128
Bromodichloromethane	9.66	10.0	97	63-129
cis-1,3-Dichloropropene	9.15	10.0	92	62-132
4-Methyl-2-pentanone (MIBK)	41.8	50.0	84	64-134
Toluene	9.86	10.0	99	69-124
trans-1,3-Dichloropropene	9.43	10.0	94	59-125
1,1,2-Trichloroethane	8.99	10.0	90	74-118
Tetrachloroethene (PCE)	10.5	10.0	105	62-126
2-Hexanone	45.0	50.0	90	59-131
1,3-Dichloropropane	9.04	10.0	90	75-116
Dibromochloromethane	9.17	10.0	92	67-126

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Client: TRC Environmental Corporation
Project: G&K/193461.0000.0000
Sample Matrix: Water

Service Request: P1204977
Date Extracted: 12/10/2012
Date Analyzed: 12/10/2012

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1214479

	Lab Control Sample KWG1214479-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	9.03	10.0	90	74-118
Chlorobenzene	9.87	10.0	99	72-116
Ethylbenzene	10.1	10.0	101	67-121
1,1,1,2-Tetrachloroethane	9.68	10.0	97	66-124
m,p-Xylenes	20.8	20.0	104	69-121
o-Xylene	10.1	10.0	101	71-119
Styrene	10.0	10.0	100	74-121
Bromoform	7.78	10.0	78	52-144
Isopropylbenzene	9.90	10.0	99	67-129
1.1,2,2-Tetrachloroethane	8.20	10.0	82	70-127
Bromobenzene	9.63	10.0	96	72-116
n-Propylbenzene	10.5	10.0	105	61-124
1,2,3-Trichloropropane	9.06	10.0	91	69-123
2-Chlorotoluene	10.4	10.0	104	55-131
1,3,5-Trimethylbenzene	10.8	10.0	108	62-126
4-Chlorotoluene	9.96	10.0	100	66-121
tert-Butylbenzene	10.7	10.0	107	61-127
1,2,4-Trimethylbenzene	10.7	10.0	107	63-122
sec-Butylbenzene	10.5	10.0	105	59-128
4-Isopropyltoluene	10.9	10.0	109	61-128
1,3-Dichlorobenzene	10.1	10.0	101	70-116
1,4-Dichlorobenzene	9.89	10.0	99	73-115
n-Butylbenzene	10.9	10.0	109	55-130
1,2-Dichlorobenzene	9.55	10.0	96	72-115
1,2-Dibromo-3-chloropropane	8.40	10.0	84	55-132
1,2,4-Trichlorobenzene	10.1	10.0	101	58-126
Hexachlorobutadiene	10.3	10.0	103	57-119
Naphthalene	7.31	10.0	73	64-126
1,2,3-Trichlorobenzene	9.84	10.0	98	68-120

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