Environmental Company

AIR TOX

Environmental Solutions For Today's Industries

Superior Plating
Test Results
Southport, Connecticut

1/99

P.O. Box 239 • Willington, Connecticut 06279 • 860-487-5606 • Fax 860-487-5607

Attachment A.1
Data Summary Sheets for October Testing

Attachment A.1.1
MASC Calculations

MASC Calculation

SC-1 Stack #1

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (greater of actual distance v. H Distance) (x) =	30.48 meters	100 feet
Average actual flow rate (v) =	19130 acfm	
	9.029 m^3/sec	
Stack Height (H) =	17.86 meters	58.6 feet
H Distance = 4.47(H-20)^1.28	11.87	
Maximum Allowable Stack Concentration(H<20 m)	6.251 $\mu g/m^3$	
	0.006 mg/m^3	
		0.58
Maximum Allowable Stack Concentration(H>20 m)	7.531 $\mu g/m^3$	
	0.008 mg/m^3	

MASC Calculation

SC-1 Stack #2

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (greater of actual distance v. H Distance) (x) =	31.24 meters	103 feet
Average actual flow rate (v) =	19460 acfm	
	9.185 m^3/sec	
Stack Height (H) =	17.86 meters	58.6 feet
H Distance = 4.47(H-20)^1.28	11.87	
Maximum Allowable Stack Concentration(H<20 m)	6.369 $\mu g/m^3$	
	0.006 mg/m^3	
		0.58
Maximum Allowable Stack Concentration(H>20 m)	7.623 $\mu g/m^3$	
	0.008 mg/m^3	

MASC Calculation

SC-2 Stack #1

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (greater of actual distance v. H Distance) (x) =	32.00 meters	105 feet
Average actual flow rate (v) =	16415 acfm	
	7.748 m^3/sec	
Stack Height (H) =	17.86 meters	58.6 feet
H Distance = 4.47(H-20)^1.28	11.87	
Maximum Allowable Stack Concentration(H<20 m)	7.650 $\mu g/m^3$	
	0.008 mg/m^3	
		0.58
Maximum Allowable Stack Concentration(H>20 m)	9.135 $\mu g/m^3$	
	0.009 mg/m^3	

MASC Calculation

SC-2 Stack #2

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (greater of actual distance v. H Distance) (x) =	32.77 meters	108 feet
Average actual flow rate (v) =	16382 acfm	
	7.732 m^3/sec	
Stack Height (H) =	17.86 meters	58.6 feet
H Distance = 4.47(H-20)^1.28	11.87	
Maximum Allowable Stack Concentration(H<20 m)	7.919 $\mu g/m^3$	
	0.008 mg/m^3	
		0.58
Maximum Allowable Stack Concentration(H>20 m)	9.402 $\mu g/m^3$	
	0.009 mg/m^3	

MASC Calculation

SC-3 Stack #1

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (greater of actual distance v. H Distance) (x) =	33.53 meters	110 feet
Average actual flow rate (v) =	16990 acfm	
	8.019 m^3/sec	
Stack Height (H) =	17.86 meters	58.6 feet
H Distance = 4.47(H-20)^1.28	11.87	
Maximum Allowable Stack Concentration(H<20 m)	7.915 $\mu g/m^3$	
	0.008 mg/m^3	
		0.58
Maximum Allowable Stack Concentration(H>20 m)	9.340 $\mu g/m^3$	
	0.009 mg/m^3	

MASC Calculation

SC-3 Stack #2

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (greater of actual distance v. H Distance) (x) =	34.29 meters	113 feet
Average actual flow rate (v) =	16278 acfm	
	7.683 m^3/sec	
Stack Height (H) =	17.86 meters	58.6 feet
H Distance = 4.47(H-20)^1.28	11.87	
Maximum Allowable Stack Concentration(H<20 m)	8.485 $\mu g/m^3$	
	0.008 mg/m^3	
		0.58
Maximum Allowable Stack Concentration(H>20 m)	9.970 $\mu g/m^3$	
	0.010 mg/m^3	

Attachment A.1.2
Compliance Test Results October 1998

Superior Compliance Test -10/14/98

Calculated Stack Concentration - SC-1 Stack #1

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (μg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.023 mg/dscm**
	M_{Cr}= 56
	T_m= 70.4
	Y_m= 1.04
	V_m= 85.04
	P_{bar}= 29.83

Test #2	C_{Cr}= **0.027 mg/dscm**
	M_{Cr}= 68.3
	T_m= 73.6
	Y_m= 1.04
	V_m= 87.49
	P_{bar}= 29.80

Test #3	C_{Cr}= **0.022 mg/dscm**
	M_{Cr}= 55.2
	T_m= 74.0
	Y_m= 1.04
	V_m= 85.82
	P_{bar}= 29.74

Average emission rate = 0.024 mg/dscm

Superior Compliance Test -10/14/98

Calculated Stack Concentration - SC-1 Stack #2

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (μg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.027 mg/dscm**
	M_{Cr}= 68.2
	T_m= 75.7
	Y_m= 1.052
	V_m= 85.56
	P_{bar}= 29.83

Test #2	C_{Cr}= **0.024 mg/dscm**
	M_{Cr}= 60.6
	T_m= 79.9
	Y_m= 1.052
	V_m= 88.94
	P_{bar}= 29.77

Test #3	C_{Cr}= **0.023 mg/dscm**
	M_{Cr}= 59.6
	T_m= 80.5
	Y_m= 1.052
	V_m= 88.01
	P_{bar}= 29.74

Average emission rate = 0.025 mg/dscm

Superior Compliance Test -10/13/98

Calculated Stack Concentration - SC-2 Stack #1

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (μg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.034 mg/dscm**
	M_{Cr}= 85.6
	T_m= 68.1
	Y_m= 1.04
	V_m= 85.35
	P_{bar}= 30.06

Test #2	C_{Cr}= **0.031 mg/dscm**
	M_{Cr}= 77.7
	T_m= 69.8
	Y_m= 1.04
	V_m= 85.47
	P_{bar}= 30.03

Test #3	C_{Cr}= **0.027 mg/dscm**
	M_{Cr}= 69.2
	T_m= 70.3
	Y_m= 1.04
	V_m= 87.02
	P_{bar}= 30.00

Average emission rate = 0.031 mg/dscm

Superior Compliance Test -10/13/98

Calculated Stack Concentration - SC-2 Stack #2

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (μg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.03 mg/dscm**
	M_{Cr}= 76.4
	T_m= 74.1
	Y_m= 1.052
	V_m= 87.41
	P_{bar}= 30.06

Test #2	C_{Cr}= **0.03 mg/dscm**
	M_{Cr}= 76.4
	T_m= 75.1
	Y_m= 1.052
	V_m= 86.9
	P_{bar}= 30.03

Test #3	C_{Cr}= **0.025 mg/dscm**
	M_{Cr}= 63.4
	T_m= 75.1
	Y_m= 1.052
	V_m= 86.91
	P_{bar}= 30.00

Average emission rate = 0.028 mg/dscm

Superior Compliance Test -10/15/98

Calculated Stack Concentration - SC-3 Stack #1

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (µg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= 0.011 mg/dscm
	M_{Cr}= 28.1
	T_m= 65.2
	Y_m= 1.04
	V_m= 86.11
	P_{bar}= 30.06

Test #2	C_{Cr}= 0.015 mg/dscm
	M_{Cr}= 38.2
	T_m= 66.3
	Y_m= 1.04
	V_m= 86.49
	P_{bar}= 30.03

Test #3	C_{Cr}= 0.013 mg/dscm
	M_{Cr}= 33.6
	T_m= 67.6
	Y_m= 1.04
	V_m= 86.75
	P_{bar}= 30.03

Average emission rate = 0.013 mg/dscm

Superior Compliance Test -10/15/98

Calculated Stack Concentration - SC-3 Stack #2

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (μg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.014 mg/dscm**
	M_{Cr}= 37.1
	T_m= 63.5
	Y_m= 1.052
	V_m= 84.95
	P_{bar}= 30.00

Test #2	C_{Cr}= **0.014 mg/dscm**
	M_{Cr}= 35.5
	T_m= 69.5
	Y_m= 1.052
	V_m= 85.6
	P_{bar}= 30.03

Test #3	C_{Cr}= **0.015 mg/dscm**
	M_{Cr}= 39.9
	T_m= 69.6
	Y_m= 1.052
	V_m= 87.11
	P_{bar}= 30.03

Average emission rate = 0.014 mg/dscm

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EPA Method 2

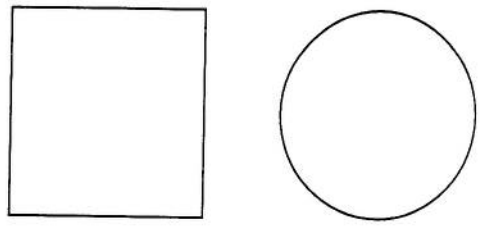
Velocity Traverse and
Flow Rate Determination

Firm: Superior Plating Company
Date: 10/14/98 Project No. 96029
Location: SC-1 Stack #1

Round Stack or Duct:
Diameter (in): 36 Area: 7.07 ft^2

Rectangular Stack or Duct:
Stack Length (in): Area: ft^2
Stack Width (in):

Barometric Pressure; Pb = 29.83 in. Hg
Stack Static Pressure; Pg = -0.21 in. H2O
Stack Gas Moisture Content; % H2O = <2.0
Stack Gas Molecular Weight; (wet) Mw = 28.88
Pitot Tube No. New 5' Cp = 0.84
Field Tester(s): JES, EJM
Test Start Time: 0830 Finish: 0900



Schematic of Traverse Point Locations

Cyclonic Flow Angle: + Ø Clockwise
- Ø Counterwise

PORT	POINT	ΔP (Inch H2O)	√ΔP	Ts (°F)	± Ø	Pitots Reversed for Negative Flow?	RADIANS	√ΔP*cosØ
1	1	.650	.8062	68	12°		.2095	.7886
	2	.650	.8062	68	12°		.2095	.7886
	3	.640	.8000	68	10°		.1746	.7878
	4	.650	.8062	68	5°		.0873	.8032
	5	.630	.7937	68	7°		.1222	.7878
	6	.610	.7810	68	0°		.0000	.7810
	7	.630	.7937	68	4°		.0698	.7918
	8	.630	.7937	68	0°		.0000	.7937
	9	.630	.7937	68	2°		.0349	.7932
	10	.630	.7937	68	2°		.0349	.7932
	11	.610	.7810	68	7°		.1222	.7752
	12	.550	.7416	68	0°		.0000	.7416
2	1	.610	.7810	68	4°		.0698	.7791
	2	.670	.8185	68	4°		.0698	.8165
	3	.750	.8660	68	2°		.0349	.8655
	4	.750	.8660	68	0°		.0000	.8660
	5	.710	.8426	68	1°		.0175	.8425
	6	.630	.7937	68	2°		.0349	.7932
	7	.610	.7810	68	3°		.0524	.7800
	8	.650	.8062	68	9°		.1571	.7963
	9	.700	.8367	68	5°		.0873	.8335
	10	.710	.8426	68	2°		.0349	.8421
	11	.690	.8307	68	10°		.1746	.8180
	12	.630	.7937	68	4°		.0698	.7918
		AVERAGE	**.8062**	**68°F**			**AVERAGE**	**.8021**

Absolute Gas Temperature; Tst = Ts + 460°	528	° R
Absolute Gas Pressure; Ps = Pb + Pg/13.6	29.81	in. Hg
Gas Velocity; Vs = (85.49)Cp(√ΔP*cosØ)avg√(Tst avg/(Ps*Mw))	45	ft/sec
Actual Gas Flow Rate; Qa = (Vs)(60)(A)	19130	acfm
Standard Gas Flow Rate; Qs = Qa(528°R/Tst)(Ps/29.92)	19063	scfm
Dry Standard Gas Flow Rate; Qsd = Qa(528°R/Tst)(Ps/29.92)((100-%H2O)/100)	18682	dscfm

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EPA Method 2

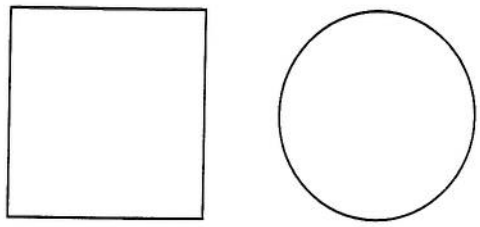
Velocity Traverse and
Flow Rate Determination

Firm: Superior Plating Company
Date: 10/14/98 Project No. 96029
Location: SC-1 Stack #2

Round Stack or Duct:
Diameter (in): 36 Area: 7.07 ft^2

Rectangular Stack or Duct:
Stack Length (in): Area: ft^2
Stack Width (in):

Barometric Pressure; Pb = 30.09 in. Hg
Stack Static Pressure; Pg = -0.21 in. H2O
Stack Gas Moisture Content; % H2O = <2.0
Stack Gas Molecular Weight; (wet) Mw = 28.88
Pitot Tube No. New 5' Cp = 0.84
Field Tester(s) JES, EJM
Test Start Time: 0830 Finish: 0900



Schematic of Traverse Point Locations

Cyclonic Flow Angle: + Ø Clockwise
- Ø Counterwise

PORT	POINT	ΔP (Inch H2O)	√ΔP	Ts (°F)	± Ø	Pitots Reversed for Negative Flow?	RADIANS	√ΔP*cosØ
1	1	.670	.8185	68	0°		.0000	.8185
	2	.760	.8718	68	2°		.0349	.8712
	3	.780	.8832	68	1°		.0175	.8830
	4	.750	.8660	68	0°		.0000	.8660
	5	.720	.8485	68	2°		.0349	.8480
	6	.700	.8367	68	11°		.1921	.8213
	7	.710	.8426	68	13°		.2270	.8210
	8	.730	.8544	68	12°		.2095	.8357
	9	.730	.8544	68	9°		.1571	.8439
	10	.750	.8660	68	12°		.2095	.8471
	11	.760	.8718	68	10°		.1746	.8585
	12	.630	.7937	68	16°		.2794	.7630
2	1	.460	.6782	68	0°		.0000	.6782
	2	.540	.7348	68	3°		.0524	.7338
	3	.590	.7681	68	5°		.0873	.7652
	4	.600	.7746	68	12°		.2095	.7577
	5	.630	.7937	68	12°		.2095	.7764
	6	.660	.8124	68	10°		.1746	.8001
	7	.700	.8367	68	4°		.0698	.8346
	8	.710	.8426	68	5°		.0873	.8394
	9	.740	.8602	68	8°		.1397	.8519
	10	.750	.8660	68	5°		.0873	.8627
	11	.770	.8775	68	4°		.0698	.8754
	12	.710	.8426	68	15°		.2619	.8139
		AVERAGE	.8290	68°F			AVERAGE	.8194

Absolute Gas Temperature; Tst = Ts + 460°	528	° R
Absolute Gas Pressure; Ps = Pb + Pg/13.6	30.07	in. Hg
Gas Velocity; Vs = (85.49)Cp(√ΔP*cosØ)avg√(Tst avg/(Ps*Mw))	46	ft/sec
Actual Gas Flow Rate; Qa = (Vs)(60)(A)	19459	acfm
Standard Gas Flow Rate; Qs = Qa(528°R/Tst)(Ps/29.92)	19560	scfm
Dry Standard Gas Flow Rate; Qsd = Qa(528°R/Tst)(Ps/29.92)((100-%H2O)/100)	19169	dscfm

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EPA Method 2

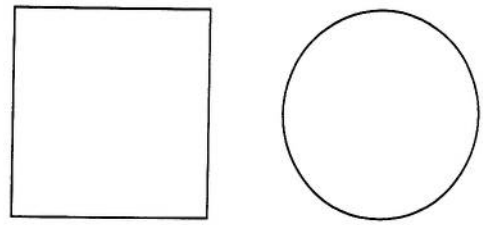
Velocity Traverse and
Flow Rate Determination

Firm: Superior Plating Company
Date: 10/13/98 Project No. 96029
Location: SC-2 Stack #1

Round Stack or Duct:
Diameter (in): 36 Area: 7.07 ft^2

Rectangular Stack or Duct:
Stack Length (in): Area: ft^2
Stack Width (in):

Barometric Pressure; Pb = 30.03 in. Hg
Stack Static Pressure; Pg = -0.14 in. H2O
Stack Gas Moisture Content; % H2O = <2.0
Stack Gas Molecular Weight; (wet) Mw = 28.88
Pitot Tube No. Apex 4' Cp = 0.84
Field Tester(s): JES, EJM
Test Start Time: 0930 Finish: 1015



Schematic of Traverse Point Locations

Cyclonic Flow Angle: + Ø Clockwise
- Ø Counterwise

PORT	POINT	ΔP (Inch H2O)	√ΔP	Ts (°F)	± Ø	Pitots Reversed for Negative Flow?	RADIANS	√ΔP*cosØ
1	1	.400	.6325	72	17°		.2968	.6048
	2	.430	.6557	72	4°		.0698	.6541
	3	.370	.6083	72	2°		.0349	.6079
	4	.360	.6000	72	0°		.0000	.6000
	5	.360	.6000	72	3°		.0524	.5992
	6	.430	.6557	72	2°		.0349	.6553
	7	.500	.7071	72	11°		.1921	.6941
	8	.700	.8367	72	8°		.1397	.8285
	9	.680	.8246	72	14°		.2444	.8001
	10	.680	.8246	72	9°		.1571	.8145
	11	.660	.8124	72	14°		.2444	.7883
	12	.680	.8246	72	13°		.2270	.8035
2	1	.640	.8000	72	3°		.0524	.7989
	2	.690	.8307	72	3°		.0524	.8295
	3	.630	.7937	72	2°		.0349	.7932
	4	.570	.7550	72	0°		.0000	.7550
	5	.470	.6856	72	2°		.0349	.6851
	6	.420	.6481	72	2°		.0349	.6477
	7	.430	.6557	72	15°		.2619	.6334
	8	.420	.6481	72	4°		.0698	.6465
	9	.380	.6164	72	3°		.0524	.6156
	10	.350	.5916	72	9°		.1571	.5843
	11	.330	.5745	72	12°		.2095	.5619
	12	.280	.5292	72	15°		.2619	.5111
		AVERAGE	.6963	72°F			AVERAGE	.6880

Absolute Gas Temperature; Tst = Ts + 460°	532	° R
Absolute Gas Pressure; Ps = Pb + Pg/13.6	30.02	in. Hg
Gas Velocity; Vs = (85.49)Cp(√ΔP*cosØ)avg√(Tst avg/(Ps*Mw))	39	ft/sec
Actual Gas Flow Rate; Qa = (Vs)(60)(A)	16415	acfm
Standard Gas Flow Rate; Qs = Qa(528°R/Tst)(Ps/29.92)	16346	scfm
Dry Standard Gas Flow Rate; Qsd = Qa(528°R/Tst)(Ps/29.92)((100-%H2O)/100)	16019	dscfm

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EPA Method 2

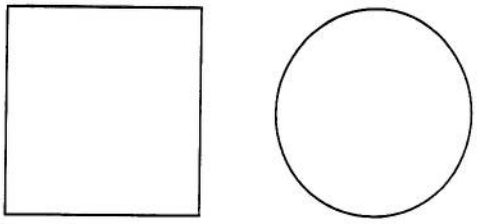
Velocity Traverse and
Flow Rate Determination

Firm: Superior Plating Company
Date: 10/13/98 Project No. 96029
Location: SC-2 Stack #2

Round Stack or Duct:
Diameter (in): 36 Area: 7.07 ft^2

Rectangular Stack or Duct:
Stack Length (in): Area: ft^2
Stack Width (in):

Barometric Pressure; Pb = 30.09 in. Hg
Stack Static Pressure; Pg = -0.14 in. H2O
Stack Gas Moisture Content; % H2O = <2.0
Stack Gas Molecular Weight; (wet) Mw = 28.88
Pitot Tube No. Apex 4' Cp = 0.84
Field Tester(s): JES, EJM
Test Start Time: 0930 Finish: 1015



Schematic of Traverse Point Locations

Cyclonic Flow Angle: + Ø Clockwise
- Ø Counterwise

PORT	POINT	ΔP (Inch H2O)	√ΔP	Ts (°F)	± Ø	Pitots Reversed for Negative Flow?	RADIANS	√ΔP*cosØ
1	1	.250	.5000	72	2°		.0349	.4997
	2	.280	.5292	72	6°		.1048	.5262
	3	.310	.5568	72	7°		.1222	.5526
	4	.330	.5745	72	2°		.0349	.5741
	5	.360	.6000	72	7°		.1222	.5955
	6	.370	.6083	72	2°		.0349	.6079
	7	.410	.6403	72	6°		.1048	.6368
	8	.590	.7681	72	9°		.1571	.7586
	9	.670	.8185	72	5°		.0873	.8154
	10	.790	.8888	72	11°		.1921	.8725
	11	.850	.9220	72	9°		.1571	.9106
	12	.830	.9110	72	7°		.1222	.9042
2	1	.380	.6164	72	7°		.1222	.6118
	2	.420	.6481	72	9°		.1571	.6401
	3	.510	.7141	72	3°		.0524	.7132
	4	.540	.7348	72	7°		.1222	.7294
	5	.520	.7211	72	11°		.1921	.7079
	6	.500	.7071	72	7°		.1222	.7018
	7	.420	.6481	72	11°		.1921	.6362
	8	.450	.6708	72	12°		.2095	.6561
	9	.500	.7071	72	4°		.0698	.7054
	10	.530	.7280	72	9°		.1571	.7190
	11	.520	.7211	72	7°		.1222	.7157
	12	.500	.7071	72	5°		.0873	.7044
		AVERAGE	.6934	72°F			AVERAGE	.6873

Absolute Gas Temperature; Tst = Ts + 460°	532	° R
Absolute Gas Pressure; Ps = Pb + Pg/13.6	30.08	in. Hg
Gas Velocity; Vs = (85.49)Cp(√ΔP*cosØ)avg√(Tst avg/(Ps*Mw))	39	ft/sec
Actual Gas Flow Rate; Qa = (Vs)(60)(A)	16382	acfm
Standard Gas Flow Rate; Qs = Qa(528°R/Tst)(Ps/29.92)	16345	scfm
Dry Standard Gas Flow Rate; Qsd = Qa(528°R/Tst)(Ps/29.92)((100-%H2O)/100)	16019	dscfm

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EPA Method 2

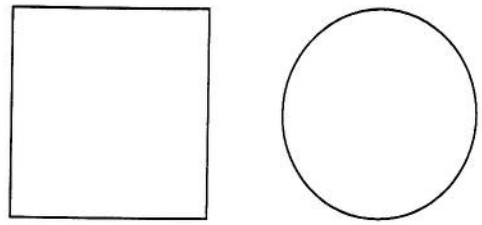
Velocity Traverse and
Flow Rate Determination

Firm: Superior Plating Company
Date: 10/15/98 Project No. 96029
Location: SC-3 Stack #1

Round Stack or Duct:
Diameter (in): 36 Area: 7.07 ft^2

Rectangular Stack or Duct:
Stack Length (in): Area: ft^2
Stack Width (in):

Barometric Pressure; Pb = 29.97 in. Hg
Stack Static Pressure; Pg = -0.10 in. H2O
Stack Gas Moisture Content; % H2O = <2.0
Stack Gas Molecular Weight; (wet) Mw = 28.88
Pitot Tube No. New 5' Cp = 0.84
Field Tester(s) JES, EJM
Test Start Time: 0730 Finish: 0800



Schematic of Traverse Point Locations

Cyclonic Flow Angle: + Ø Clockwise
- Ø Counterwise

PORT	POINT	ΔP (Inch H2O)	√ΔP	Ts (°F)	± Ø	Pitots Reversed for Negative Flow?	RADIANS	√ΔP*cosØ
1	1	.450	.6708	76	3°		.0524	.6699
	2	.500	.7071	76	5°		.0873	.7044
	3	.510	.7141	76	7°		.1222	.7088
	4	.490	.7000	76	4°		.0698	.6983
	5	.440	.6633	76	9°		.1571	.6552
	6	.400	.6325	76	5°		.0873	.6300
	7	.480	.6928	76	10°		.1746	.6823
	8	.550	.7416	76	4°		.0698	.7398
	9	.660	.8124	76	3°		.0524	.8113
	10	.630	.7937	76	8°		.1397	.7860
	11	.670	.8185	76	3°		.0524	.8174
	12	.630	.7937	76	9°		.1571	.7839
2	1	.710	.8426	76	8°		.1397	.8344
	2	.790	.8888	76	4°		.0698	.8867
	3	.740	.8602	76	9°		.1571	.8496
	4	.630	.7937	76	1°		.0175	.7936
	5	.500	.7071	76	2°		.0349	.7067
	6	.450	.6708	76	0°		.0000	.6708
	7	.420	.6481	76	12°		.2095	.6339
	8	.400	.6325	76	6°		.1048	.6290
	9	.380	.6164	76	4°		.0698	.6149
	10	.360	.6000	76	13°		.2270	.5846
	11	.340	.5831	76	6°		.1048	.5799
	12	.300	.5477	76	10°		.1746	.5394
		AVERAGE	.7138	76°F			AVERAGE	.7088

Absolute Gas Temperature; Tst = Ts + 460°	536	° R
Absolute Gas Pressure; Ps = Pb + Pg/13.6	29.96	in. Hg
Gas Velocity; Vs = (85.49)Cp(√ΔP*cosØ)avg√(Tst avg/(Ps*Mw))	40	ft/sec
Actual Gas Flow Rate; Qa = (Vs)(60)(A)	16990	acfm
Standard Gas Flow Rate; Qs = Qa(528°R/Tst)(Ps/29.92)	16761	scfm
Dry Standard Gas Flow Rate; Qsd = Qa(528°R/Tst)(Ps/29.92)((100-%H2O)/100)	16425	dscfm

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EPA Method 2

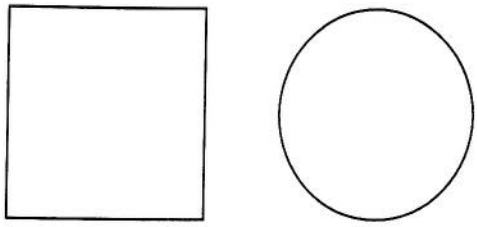
Velocity Traverse and
Flow Rate Determination

Firm: Superior Plating Company
Date: 10/15/98 Project No. 96029
Location: SC-3 Stack #2

Round Stack or Duct:
Diameter (in): 36 Area: 7.07 ft^2

Rectangular Stack or Duct:
Stack Length (in): Area: ft^2
Stack Width (in):

Barometric Pressure; Pb = 29.97 in. Hg
Stack Static Pressure; Pg = -0.10 in. H2O
Stack Gas Moisture Content; % H2O = <2.0
Stack Gas Molecular Weight; (wet) Mw = 29.97
Pitot Tube No. New 5' Cp = 0.84
Field Tester(s) JES, EJM
Test Start Time: 0730 Finish: 0800



Schematic of Traverse Point Locations

Cyclonic Flow Angle: + Ø Clockwise
- Ø Counterwise

PORT	POINT	ΔP (Inch H2O)	√ΔP	Ts (°F)	± Ø	Pitots Reversed for Negative Flow?	RADIANS	√ΔP*cosØ
1	1	.260	.5099	76	6°		.1048	.5071
	2	.290	.5385	76	3°		.0524	.5378
	3	.320	.5657	76	4°		.0698	.5643
	4	.350	.5916	76	0°		.0000	.5916
	5	.380	.6164	76	4°		.0698	.6149
	6	.390	.6245	76	4°		.0698	.6230
	7	.410	.6403	76	5°		.0873	.6379
	8	.520	.7211	76	9°		.1571	.7122
	9	.610	.7810	76	10°		.1746	.7691
	10	.720	.8485	76	7°		.1222	.8422
	11	.780	.8832	76	6°		.1048	.8783
	12	.650	.8062	76	9°		.1571	.7963
2	1	.570	.7550	76	13°		.2270	.7356
	2	.600	.7746	76	3°		.0524	.7735
	3	.610	.7810	76	9°		.1571	.7714
	4	.610	.7810	76	7°		.1222	.7752
	5	.570	.7550	76	6°		.1048	.7508
	6	.520	.7211	76	7°		.1222	.7157
	7	.440	.6633	76	5°		.0873	.6608
	8	.450	.6708	76	4°		.0698	.6692
	9	.470	.6856	76	0°		.0000	.6856
	10	.460	.6782	76	6°		.1048	.6745
	11	.460	.6782	76	5°		.0873	.6756
	12	.410	.6403	76	2°		.0349	.6399
		AVERAGE	.6963	76°F			AVERAGE	.6918

Absolute Gas Temperature; Tst = Ts + 460°	536	° R
Absolute Gas Pressure; Ps = Pb + Pg/13.6	29.96	in. Hg
Gas Velocity; Vs = (85.49)Cp(√ΔP*cosØ)avg√(Tst avg/(Ps*Mw))	38	ft/sec
Actual Gas Flow Rate; Qa = (Vs)(60)(A)	16278	acfm
Standard Gas Flow Rate; Qs = Qa(528°R/Tst)(Ps/29.92)	16058	scfm
Dry Standard Gas Flow Rate; Qsd = Qa(528°R/Tst)(Ps/29.92)((100-%H2O)/100)	15737	dscfm

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-1	Stack Diameter	36	in.
Operator:	MJF	Calibration Factor (Y)	1.04	
Date:	10/14/98	Pitot Coeff. (Cp)	0.84	
Run No.	1	Baro. Press (Pbar)	29.83	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 8.0"Hg	cfm	Leak rate after run	<0.01 @ 6.0 in Hg	cfm
Stack Temp. Start	68	°F	Stack Temp. End	73	°F
Meter Volume Start	212.09	cu. ft.	Meter Volume End	297.13	cu. ft.
Start Time	0928		End Time	1134	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	5.0	5.0	62	61	1	4.8	63.7	74	68
2	5.0	10.0	66	61	2	5.1	68.8	75	68
3	5.0	15.0	69	62	3	5.4	74.2	75	68
4	5.0	20.0	71	63	4	5.4	79.6	76	69
5	4.9	24.9	72	64	5	5.2	84.8	76	69
6	4.8	29.7	73	65	6	4.9	89.7	76	69
7	4.9	34.6	74	66	7	4.8	94.5	76	69
8	4.9	39.6	74	66	8	5	99.5	77	69
9	4.9	44.5	75	66	9	5.2	104.7	77	70
10	4.9	49.4	75	67	10	5.2	109.9	77	70
11	4.8	54.3	75	68	11	5.2	115.1	76	70
12	4.6	58.9	75	68	12	4.9	120.0	76	70

Total Sample Volume 85.04 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 70.4 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-1	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.04	
Date:	10/14/98	Pitot Coeff. (Cp)	0.84	
Run No.	2	Baro. Press (Pbar)	29.8	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 8.0"Hg	cfm	Leak rate after run	<0.01 @ 6.0 in Hg	cfm
Stack Temp. Start	77	°F	Stack Temp. End	80	°F
Meter Volume Start	297.275	cu. ft.	Meter Volume End	384.765	cu. ft.
Start Time	1156		End Time	1359	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	5.0	5.0	72	68	1	4.8	63.7	75	71
2	5.0	10.0	72	68	2	5.1	68.8	75	71
3	5.0	15.0	74	68	3	5.4	74.2	76	71
4	5.0	20.0	75	69	4	5.4	79.6	77	72
5	4.9	24.9	76	69	5	5.2	84.8	78	72
6	4.8	29.7	76	69	6	4.9	89.7	78	72
7	4.9	34.6	76	69	7	4.8	94.5	78	73
8	4.9	39.6	76	69	8	5	99.5	78	73
9	4.9	44.5	77	70	9	5.2	104.7	78	73
10	4.9	49.4	77	71	10	5.2	109.9	78	74
11	4.8	54.3	77	71	11	5.2	115.1	78	74
12	4.6	58.9	77	71	12	4.9	120.0	78	74

Total Sample Volume 87.49 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 73.6 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-1	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.04	
Date:	10/14/98	Pitot Coeff. (Cp)	0.84	
Run No.	3	Baro. Press (Pbar)	29.74	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 7.0"Hg	cfm	Leak rate after run	<0.01 @ 5.0 in Hg	cfm
Stack Temp. Start	80	°F	Stack Temp. End	80	°F
Meter Volume Start	384.875	cu. ft.	Meter Volume End	470.697	cu. ft.
Start Time	1427		End Time	1630	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	5.0	5.0	72	72	1	4.8	63.7	77	72
2	5.0	10.0	75	72	2	5.1	68.8	77	72
3	5.0	15.0	75	72	3	5.4	74.2	78	72
4	5.0	20.0	74	72	4	5.4	79.6	78	72
5	4.9	24.9	74	71	5	5.2	84.8	78	72
6	4.8	29.7	74	71	6	4.9	89.7	78	72
7	4.9	34.6	74	71	7	4.8	94.5	78	73
8	4.9	39.6	74	71	8	5	99.5	78	73
9	4.9	44.5	75	71	9	5.2	104.7	78	73
10	4.9	49.4	75	71	10	5.2	109.9	78	73
11	4.8	54.3	75	71	11	5.2	115.1	78	74
12	4.6	58.9	76	71	12	4.9	120.0	77	73

Total Sample Volume 85.822 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 74.0 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-1	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.052	
Date:	10/14/98	Pitot Coeff. (Cp)	0.84	
Run No.	1	Baro. Press (Pbar)	29.83	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.01 @ 8.0"Hg	cfm	Leak rate after run	<0.01 @ 8.0 in Hg	cfm
Stack Temp. Start	68	°F	Stack Temp. End	73	°F
Meter Volume Start	660.455	cu. ft.	Meter Volume End	746.01	cu. ft.
Start Time	0928		End Time	1132	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.9	4.9	68	63	1	4.1	65.7	80	71
2	5.3	10.2	76	63	2	4.4	70.1	83	71
3	5.3	15.5	78	65	3	4.6	74.7	84	72
4	5.2	20.7	80	66	4	4.7	79.4	84	72
5	5.1	25.8	81	66	5	4.8	84.2	85	72
6	5.0	30.8	81	66	6	4.9	89.1	84	72
7	5.1	35.9	82	68	7	5	94.1	83	72
8	5.2	41.1	81	68	8	5.1	99.2	84	72
9	5.2	46.3	83	69	9	5.2	104.4	85	72
10	5.2	51.5	83	69	10	5.2	109.6	85	73
11	5.3	56.8	83	70	11	5.3	114.9	84	73
12	4.8	61.6	84	71	12	5.1	120.0	82	73

Total Sample Volume (End Volume - Start Volume) 85.555 cu. ft.

Average Meter Temp. 75.7 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-1	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.052	
Date:	10/14/98	Pitot Coeff. (Cp)	0.84	
Run No.	2	Baro. Press (Pbar)	29.77	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.01 @ 8.0"Hg	cfm	Leak rate after run	<0.01 @ 6.0 in Hg	cfm
Stack Temp. Start	77	°F	Stack Temp. End	80	°F
Meter Volume Start	746.137	cu. ft.	Meter Volume End	835.081	cu. ft.
Start Time	1156		End Time	1357	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.9	4.9	83	71	1	4.1	65.7	86	75
2	5.3	10.2	84	72	2	4.4	70.1	86	75
3	5.3	15.5	84	72	3	4.6	74.7	86	75
4	5.2	20.7	84	72	4	4.7	79.4	87	75
5	5.1	25.8	84	72	5	4.8	84.2	87	76
6	5.0	30.8	84	73	6	4.9	89.1	86	76
7	5.1	35.9	84	73	7	5	94.1	86	76
8	5.2	41.1	83	74	8	5.1	99.2	87	76
9	5.2	46.3	84	74	9	5.2	104.4	86	76
10	5.2	51.5	86	74	10	5.2	109.6	87	76
11	5.3	56.8	86	74	11	5.3	114.9	88	77
12	4.8	61.6	86	74	12	5.1	120.0	84	77

Total Sample Volume (End Volume - Start Volume) 88.944 cu. ft.

Average Meter Temp. 79.9 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-1	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.052	
Date:	10/14/98	Pitot Coeff. (Cp)	0.84	
Run No.	3	Baro. Press (Pbar)	29.74	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.01 @ 7.0"Hg	cfm	Leak rate after run	<0.01 @ 5.0 in Hg	cfm
Stack Temp. Start	80	°F	Stack Temp. End	80	°F
Meter Volume Start	835.228	cu. ft.	Meter Volume End	923.24	cu. ft.
Start Time	1427		End Time	1630	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.9	4.9	83	76	1	4.1	65.7	85	76
2	5.3	10.2	84	76	2	4.4	70.1	86	76
3	5.3	15.5	83	76	3	4.6	74.7	87	77
4	5.2	20.7	83	76	4	4.7	79.4	87	77
5	5.1	25.8	84	75	5	4.8	84.2	86	77
6	5.0	30.8	84	75	6	4.9	89.1	86	77
7	5.1	35.9	83	76	7	5	94.1	87	77
8	5.2	41.1	83	75	8	5.1	99.2	85	77
9	5.2	46.3	84	75	9	5.2	104.4	85	77
10	5.2	51.5	83	76	10	5.2	109.6	86	77
11	5.3	56.8	85	75	11	5.3	114.9	87	77
12	4.8	61.6	86	75	12	5.1	120.0	84	77

Total Sample Volume (End Volume - Start Volume) 88.012 cu. ft.

Average Meter Temp. 80.5 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-2	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.04	
Date:	10/13/98	Pitot Coeff. (Cp)	0.84	
Run No.	1	Baro. Press (Pbar)	30.06	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 10.0"Hg	cfm	Leak rate after run	<0.01 @ 5.0 in Hg	cfm
Stack Temp. Start	70	°F	Stack Temp. End	68	°F
Meter Volume Start	953.245	cu. ft.	Meter Volume End	1038.59	cu. ft.
Start Time	1010		End Time	1213	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.5	4.5	62	60	1	5.7	67.4	72	65
2	4.7	9.2	65	60	2	6	73.4	73	66
3	4.4	13.6	69	61	3	5.7	79.1	73	66
4	4.3	17.9	70	62	4	5.4	84.5	74	66
5	4.3	22.2	71	62	5	4.9	89.4	74	66
6	4.7	26.9	71	63	6	4.7	94.1	73	66
7	5.1	32.0	72	63	7	4.7	98.8	73	66
8	6.0	38.1	72	64	8	4.7	103.5	74	66
9	5.9	44.0	72	65	9	4.4	107.9	74	66
10	5.9	49.9	72	65	10	4.2	112.1	74	67
11	5.8	55.8	72	65	11	4.1	116.2	74	67
12	5.9	61.7	72	65	12	3.8	120.0	73	67

Total Sample Volume (End Volume - Start Volume) 85.345 cu. ft.

Average Meter Temp. 68.1 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-2	Stack Diameter	36	in.
Operator:	MJF	Calibration Factor (Y)	1.04	
Date:	10/13/98	Pitot Coeff. (Cp)	0.84	
Run No.	2	Baro. Press (Pbar)	30.03	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 10.0"Hg	cfm	Leak rate after run	<0.01 @ 6.0 " Hg	cfm
Stack Temp. Start	70	°F	Stack Temp. End	71	°F
Meter Volume Start	38.73	cu. ft.	Meter Volume End	124.2	cu. ft.
Start Time	1300		End Time	1502	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.5	4.5	66	66	1	5.7	67.4	72	67
2	4.7	9.2	68	66	2	6	73.4	73	67
3	4.4	13.6	70	66	3	5.7	79.1	74	67
4	4.3	17.9	71	66	4	5.4	84.5	74	68
5	4.3	22.2	72	66	5	4.9	89.4	74	68
6	4.7	26.9	73	66	6	4.7	94.1	74	68
7	5.1	32.0	73	66	7	4.7	98.8	74	68
8	6.0	38.1	73	66	8	4.7	103.5	74	68
9	5.9	44.0	73	66	9	4.4	107.9	74	68
10	5.9	49.9	73	66	10	4.2	112.1	74	68
11	5.8	55.8	73	67	11	4.1	116.2	74	68
12	5.9	61.7	72	67	12	3.8	120.0	74	68

Total Sample Volume (End Volume - Start Volume) 85.47 cu. ft.

Average Meter Temp. 69.8 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-2	Stack Diameter	36	in.
Operator:	EJM	Calibration Factor (Y)	1.04	
Date:	10/13/98	Pitot Coeff. (Cp)	0.84	
Run No.	3	Baro. Press (Pbar)	30.00	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 8.0"Hg	cfm	Leak rate after run	<0.01 @ 7.0 " Hg	cfm
Stack Temp. Start	71	°F	Stack Temp. End	68	°F
Meter Volume Start	124.34	cu. ft.	Meter Volume End	211.36	cu. ft.
Start Time	1531		End Time	1735	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.5	4.5	71	67	1	5.7	67.4	73	68
2	4.7	9.2	72	67	2	6	73.4	73	68
3	4.4	13.6	73	68	3	5.7	79.1	73	68
4	4.3	17.9	73	68	4	5.4	84.5	73	67
5	4.3	22.2	74	68	5	4.9	89.4	73	67
6	4.7	26.9	74	68	6	4.7	94.1	73	67
7	5.1	32.0	74	68	7	4.7	98.8	73	67
8	6.0	38.1	74	68	8	4.7	103.5	73	67
9	5.9	44.0	74	68	9	4.4	107.9	73	67
10	5.9	49.9	74	68	10	4.2	112.1	72	67
11	5.8	55.8	74	68	11	4.1	116.2	72	66
12	5.9	61.7	74	68	12	3.8	120.0	73	67

Total Sample Volume (End Volume - Start Volume) 87.02 cu. ft.

Average Meter Temp. 70.3 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-2	Stack Diameter	36	in.
Operator:	MJF	Calibration Factor (Y)	1.052	
Date:	10/13/98	Pitot Coeff. (Cp)	0.84	
Run No.	1	Baro. Press (Pbar)	30.06	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.01 @ 10.0"Hg	cfm	Leak rate after run	<0.01 @ 5.0 in Hg	cfm
Stack Temp. Start	70	°F	Stack Temp. End	68	°F
Meter Volume Start	397.46	cu. ft.	Meter Volume End	484.87	cu. ft.
Start Time	1012		End Time	1214	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	3.6	3.6	66	62	1	4.4	64.4	81	69
2	3.8	7.4	77	63	2	4.7	69.1	81	69
3	4.0	11.4	79	64	3	5.1	74.2	81	69
4	4.1	15.5	79	65	4	5.3	79.5	81	70
5	4.3	19.8	80	65	5	5.2	84.7	81	70
6	4.4	24.2	80	66	6	5.1	89.8	81	70
7	4.6	28.8	80	67	7	4.7	94.5	81	70
8	5.5	34.3	81	68	8	4.8	99.4	81	71
9	5.9	40.3	81	68	9	5.1	104.5	81	71
10	6.4	46.8	81	68	10	5.2	109.7	82	71
11	6.6	53.4	81	69	11	5.2	114.9	81	71
12	6.6	60.0	81	69	12	5.1	120.0	81	71

Total Sample Volume (End Volume - Start Volume) 87.41 cu. ft.

Average Meter Temp. 74.1 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-2	Stack Diameter	36	in.
Operator:	MJF	Calibration Factor (Y)	1.052	
Date:	10/13/98	Pitot Coeff. (Cp)	0.84	
Run No.	2	Baro. Press (Pbar)	30.03	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.01 @7.0"Hg	cfm	Leak rate after run	<0.01 @ 7.0 in Hg	cfm
Stack Temp. Start	70	°F	Stack Temp. End	68	°F
Meter Volume Start	485.925	cu. ft.	Meter Volume End	572.829	cu. ft.
Start Time	1300		End Time	1501	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	3.6	3.6	71	68	1	4.4	64.4	79	71
2	3.8	7.4	78	68	2	4.7	69.1	80	71
3	4.0	11.4	80	68	3	5.1	74.2	81	70
4	4.1	15.5	80	69	4	5.3	79.5	81	71
5	4.3	19.8	80	69	5	5.2	84.7	81	71
6	4.4	24.2	80	69	6	5.1	89.8	81	71
7	4.6	28.8	81	69	7	4.7	94.5	82	71
8	5.5	34.3	81	70	8	4.8	99.4	81	71
9	5.9	40.3	81	70	9	5.1	104.5	81	71
10	6.4	46.8	80	70	10	5.2	109.7	81	71
11	6.6	53.4	81	71	11	5.2	114.9	81	71
12	6.6	60.0	78	71	12	5.1	120.0	81	71

Total Sample Volume 86.904 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 75.1 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-2	Stack Diameter	36	in.
Operator:	ECD	Calibration Factor (Y)	1.052	
Date:	10/13/98	Pitot Coeff. (Cp)	0.84	
Run No.	3	Baro. Press (Pbar)	30.00	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.01 @8.0"Hg	cfm	Leak rate after run	<0.005 @ 5.0 in Hg	cfm
Stack Temp. Start	71	°F	Stack Temp. End	68	°F
Meter Volume Start	573.089	cu. ft.	Meter Volume End	659.996	cu. ft.
Start Time	1532		End Time	1735	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	3.6	3.6	79	69	1	4.4	64.4	81	70
2	3.8	7.4	80	69	2	4.7	69.1	81	71
3	4.0	11.4	81	69	3	5.1	74.2	81	71
4	4.1	15.5	82	70	4	5.3	79.5	79	70
5	4.3	19.8	81	70	5	5.2	84.7	80	70
6	4.4	24.2	81	71	6	5.1	89.8	79	70
7	4.6	28.8	81	71	7	4.7	94.5	80	69
8	5.5	34.3	81	71	8	4.8	99.4	79	70
9	5.9	40.3	80	70	9	5.1	104.5	79	70
10	6.4	46.8	80	70	10	5.2	109.7	80	69
11	6.6	53.4	80	70	11	5.2	114.9	80	69
12	6.6	60.0	81	71	12	5.1	120.0	80	69

Total Sample Volume (End Volume - Start Volume) 86.907 cu. ft.

Average Meter Temp. 75.1 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-3	Stack Diameter	36	in.
Operator:	JES	Calibration Factor (Y)	1.04	
Date:	10/15/98	Pitot Coeff. (Cp)	0.84	
Run No.	1	Baro. Press (Pbar)	30.06	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.01 @ 8.0"Hg	cfm	Leak rate after run	<0.005 @ 5.0 in Hg	cfm
Stack Temp. Start	82	°F	Stack Temp. End	80	°F
Meter Volume Start	731.701	cu. ft.	Meter Volume End	817.81	cu. ft.
Start Time	1539		End Time	1741	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.7	4.7	67	66	1	5.9	67.1	66	64
2	5.0	9.7	67	65	2	6.2	73.4	66	64
3	5.0	14.7	67	65	3	6	79.4	66	63
4	4.9	19.6	68	65	4	5.6	85.0	65	63
5	4.6	24.2	69	66	5	5	90.0	65	63
6	4.4	28.6	69	66	6	4.7	94.7	65	63
7	4.9	33.5	68	65	7	4.5	99.2	65	62
8	5.2	38.7	68	65	8	4.4	103.6	65	62
9	5.7	44.4	68	65	9	4.3	107.9	65	62
10	5.6	49.9	67	65	10	4.2	112.1	65	62
11	5.7	55.6	68	65	11	4.1	116.2	65	61
12	5.6	61.2	67	65	12	3.8	120.0	65	61

Total Sample Volume (End Volume - Start Volume) 86.109 cu. ft.

Average Meter Temp. 65.2 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-3	Stack Diameter	36	in.
Operator:	ECD	Calibration Factor (Y)	1.04	
Date:	10/15/98	Pitot Coeff. (Cp)	0.84	
Run No.	2	Baro. Press (Pbar)	30.03	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.005 @ 8.0"Hg	cfm	Leak rate after run	<0.005 @ 6.0 in Hg	cfm
Stack Temp. Start	85	°F	Stack Temp. End	89	°F
Meter Volume Start	557.976	cu. ft.	Meter Volume End	644.464	cu. ft.
Start Time	1049		End Time	1251	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.7	4.7	66	63	1	5.9	67.1	68	65
2	5.0	9.7	67	64	2	6.2	73.4	67	65
3	5.0	14.7	66	63	3	6	79.4	67	65
4	4.9	19.6	68	64	4	5.6	85.0	67	65
5	4.6	24.2	68	64	5	5	90.0	68	65
6	4.4	28.6	68	65	6	4.7	94.7	68	65
7	4.9	33.5	68	65	7	4.5	99.2	68	65
8	5.2	38.7	68	65	8	4.4	103.6	68	65
9	5.7	44.4	69	65	9	4.3	107.9	68	65
10	5.6	49.9	69	65	10	4.2	112.1	69	65
11	5.7	55.6	68	65	11	4.1	116.2	68	65
12	5.6	61.2	68	65	12	3.8	120.0	68	65

Total Sample Volume 86.488 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 66.3 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-1	
Location:	SC-3	Stack Diameter	36	in.
Operator:	ECD	Calibration Factor (Y)	1.04	
Date:	10/15/98	Pitot Coeff. (Cp)	0.84	
Run No.	3	Baro. Press (Pbar)	30.03	"Hg
		Delta H@	1.59	"H2O

Leak rate before run	<0.005 @ 8.0"Hg	cfm	Leak rate after run	<0.005 @ 6.0 in Hg	cfm
Stack Temp. Start	87	°F	Stack Temp. End	82	°F
Meter Volume Start	644.7	cu. ft.	Meter Volume End	731.451	cu. ft.
Start Time	1312		End Time	1524	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.7	4.7	66	65	1	5.9	67.1	71	68
2	5.0	9.7	68	65	2	6.2	73.4	71	68
3	5.0	14.7	68	65	3	6	79.4	70	68
4	4.9	19.6	69	65	4	5.6	85.0	69	67
5	4.6	24.2	69	65	5	5	90.0	69	67
6	4.4	28.6	68	65	6	4.7	94.7	69	66
7	4.9	33.5	68	64	7	4.5	99.2	69	67
8	5.2	38.7	69	65	8	4.4	103.6	70	67
9	5.7	44.4	69	66	9	4.3	107.9	69	66
10	5.6	49.9	69	66	10	4.2	112.1	69	66
11	5.7	55.6	70	67	11	4.1	116.2	69	66
12	5.6	61.2	71	68	12	3.8	120.0	68	66

Total Sample Volume (End Volume - Start Volume) 86.751 cu. ft.

Average Meter Temp. 67.6 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-3	Stack Diameter	36	in.
Operator:	ECD	Calibration Factor (Y)	1.052	
Date:	10/15/98	Pitot Coeff. (Cp)	0.84	
Run No.	1	Baro. Press (Pbar)	30.00	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.005 @ 9.0"Hg	cfm	Leak rate after run	<0.005 @ 6.0 in Hg	cfm
Stack Temp. Start	76	°F	Stack Temp. End	86	°F
Meter Volume Start	923.399	cu. ft.	Meter Volume End	1008.352	cu. ft.
Start Time	0825		End Time	1027	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.9	4.9	63	52	1	4.1	65.7	66	60
2	5.3	10.2	66	53	2	4.4	70.1	67	60
3	5.3	15.5	68	54	3	4.6	74.7	68	61
4	5.2	20.7	69	55	4	4.7	79.4	66	61
5	5.1	25.8	69	56	5	4.8	84.2	68	61
6	5.0	30.8	68	57	6	4.9	89.1	67	61
7	5.1	35.9	68	57	7	5	94.1	68	61
8	5.2	41.1	68	58	8	5.1	99.2	69	61
9	5.2	46.3	68	58	9	5.2	104.4	68	61
10	5.2	51.5	68	60	10	5.2	109.6	70	62
11	5.3	56.8	68	60	11	5.3	114.9	72	63
12	4.8	61.6	68	60	12	5.1	120.0	72	63

Total Sample Volume 84.953 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 63.5 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-3	Stack Diameter	36	in.
Operator:	ECD	Calibration Factor (Y)	1.052	
Date:	10/15/98	Pitot Coeff. (Cp)	0.84	
Run No.	2	Baro. Press (Pbar)	30.03	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.005 @ 8.0"Hg	cfm	Leak rate after run	<0.005 @ 6.0 in Hg	cfm
Stack Temp. Start	76	°F	Stack Temp. End	86	°F
Meter Volume Start	8.452	cu. ft.	Meter Volume End	94.055	cu. ft.
Start Time	1049		End Time	1251	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.9	4.9	72	65	1	4.1	65.7	72	66
2	5.3	10.2	72	65	2	4.4	70.1	73	67
3	5.3	15.5	72	65	3	4.6	74.7	72	67
4	5.2	20.7	71	65	4	4.7	79.4	73	67
5	5.1	25.8	73	66	5	4.8	84.2	74	67
6	5.0	30.8	72	66	6	4.9	89.1	74	68
7	5.1	35.9	72	66	7	5	94.1	73	68
8	5.2	41.1	72	66	8	5.1	99.2	72	68
9	5.2	46.3	72	66	9	5.2	104.4	74	68
10	5.2	51.5	72	67	10	5.2	109.6	74	68
11	5.3	56.8	72	66	11	5.3	114.9	72	68
12	4.8	61.6	71	66	12	5.1	120.0	72	68

Total Sample Volume 85.603 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 69.5 °F

Chromium Field Data Sheet

USEPA Reference Method 306A

Facility:	Superior Plating -Southport, CT	Stack No. or ID	S-2	
Location:	SC-3	Stack Diameter	36	in.
Operator:	ECD	Calibration Factor (Y)	1.052	
Date:	10/15/98	Pitot Coeff. (Cp)	0.84	
Run No.	3	Baro. Press (Pbar)	30.03	"Hg
		Delta H@	1.714	"H2O

Leak rate before run	<0.005 @ 9.0"Hg	cfm	Leak rate after run	<0.005 @ 8.0 in Hg	cfm
Stack Temp. Start	87	°F	Stack Temp. End	82	°F
Meter Volume Start	132.021	cu. ft.	Meter Volume End	219.135	cu. ft.
Start Time	1430		End Time	1635	

SAMPLE PORT #1					SAMPLE PORT #2				
Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)		Point No.	Time (min)	Total Time (min)	Meter Temp. (deg F)	
1	4.9	4.9	74	69	1	4.1	65.7	71	68
2	5.3	10.2	74	70	2	4.4	70.1	70	68
3	5.3	15.5	72	69	3	4.6	74.7	70	67
4	5.2	20.7	72	69	4	4.7	79.4	69	67
5	5.1	25.8	72	69	5	4.8	84.2	71	67
6	5.0	30.8	71	69	6	4.9	89.1	71	67
7	5.1	35.9	72	69	7	5	94.1	71	68
8	5.2	41.1	72	69	8	5.1	99.2	70	67
9	5.2	46.3	72	69	9	5.2	104.4	70	67
10	5.2	51.5	72	69	10	5.2	109.6	70	67
11	5.3	56.8	71	69	11	5.3	114.9	70	67
12	4.8	61.6	71	68	12	5.1	120.0	69	66

Total Sample Volume 87.114 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 69.6 °F

Attachment A.2
Laboratory Data

Attachment A.2.1
EHL Letter Regarding Sample Analysis

Environmental Health Laboratory
Loss Control Services

CIGNA Property & Casualty

100 Separate Drive
Suite A-3
Cromwell, CT 06416
Telephone 860.635.6475
Facsimile 860.635.6750

November 12, 1998

Mr. John Schneicher
Air Tox
165 River Road
Suite B-1
Willington, CT 06279

RE: 98J1104 Chrome Samples

John,

As we discussed there appears to be a problem with the analyses of the samples submitted. EHL reanalyzed the samples and results varied by approximately 20 percent. This variability is greater then normally encountered with these type samples. I suspect some type of interference is present.

Sincerely,

James A. Kenny Jr., CIH, CSP
Laboratory Manager

JAK: ml

encl.

Attachment A.2.2
EHL Sample Analysis Reported October 23, 1998

LABORATORY ANALYSIS REPORT

Environmental Health Laboratory
a division of CIGNA Loss Control Services, Inc.
100 Sebethe Drive, Suite A-5
Cromwell, CT 06416
(800) 243-4903
Cromwell (860) 635-6475
Laboratories in Macon, GA and Cromwell, CT

CIGNA

To: Eric Mallory
Air Tox Environmental Co., Inc.
165 River Rd. Suite B-1
Willington, CT 06279

Report No.: 98J1104
P. O. No.: Superior plating Southport
Date Received: 10/20/98
Date Reported: 10/23/98

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-1, s1)	460	56.0
Test2 (sc1, s1)	470	68.3
Test3 (sc-1, s1)	440	55.2
Test1 (sc-1, s2)	590	68.2
Test2 (sc-1, s2)	600	60.6
Test3 (sc-1, s2)	600	59.6
Test1 (sc-2, s1)	410	85.6
Test2 (sc-2, s1)	500	77.7
Test3 (sc-2, s1)	580	69.2
Test1 (sc2, s2)	520	76.4
Test2 (sc2, s2)	420	76.4
Test3 (sc2, s2)	470	63.4

Analyst: Katie Shaw Katie Shaw Date: 10/23/98

< = Less than

LABORATORY ANALYSIS REPORT (continued)

Report No.: 98J1104

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-3, s1)	460	28.1
Test2 (sc-3, s1)	450	38.2
Test3 (sc-3, s1)	600	33.6
Test1 (sc-3, s2)	570	37.1
Test2 (sc-3, s2)	590	35.5
Test3 (sc-3, s2)	500	39.9
Blank	570	<2.5

Katie Shaw

10/23/98

Analyst Katie Shaw Date:

98 J 1124

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

CHAIN OF CUSTODY

AIR TOX ENVIRONMENTAL COMPANY, INC.
165 River Road
Willington, CT 06279

RECEIVED
HARTFORD EHL
OCT 2 0 1998
REC'D AND CHECKED IN BY

Mallory, E

PROJECT DESCRIPTION: Superior Plating - Southport
PROJECT NO.: Compliance Test
PROJECT NAME: Superior

FIELD SAMPLE NUMBER	DATE	TIME	COMPOSITE OR GRAB	ANALYSIS REQUIRED	SAMPLING TRAIN	SAMPLE DESCRIPTION	SPECIAL NOTES	SEND TO:
Test 1(SC-2, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-2, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-2, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 1(SC-2, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-2, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-2, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Blank		n/a	Grab	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
	Please Fax Results to Air Tox Environmental @ 860-487-5607							

Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Erik J. Mallory	10/19/98	M Ha Chance	10/19/98	4:00pm
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	

Lauren 10/26/98

9J1104

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

CHAIN OF CUSTODY

AIR TOX ENVIRONMENTAL COMPANY, INC.
165 River Road
Willington, CT 06279

RECEIVED
HARTFORD EHL
OCT 2 0 1998
RECD AND CHECKED IN BY

PROJECT DESCRIPTION Superior Plating - Southport PROJECT NO. Compliance Test PROJECT NAME Superior

FIELD SAMPLE NUMBER	DATE	TIME	COMPOSITE OR GRAB	ANALYSIS REQUIRED	SAMPLING TRAIN	SAMPLE DESCRIPTION	SPECIAL NOTES	SEND TO:
Test 1(SC-1, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-1, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-1, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 1(SC-1, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-1, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-1, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Blank		n/a	Grab	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
	Please Fax Results to Air Tox Environmental @ 860-487-5607							

Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Erik J. Melby	10/19/98	M Ha Chance	10/19/98	4:00 pm
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	

C8J110

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

CHAIN OF CUSTODY

AIR TOX ENVIRONMENTAL COMPANY, INC.

165 River Road

Willington, CT 06279

RECEIVED
HARTFORD EHL
OCT 2 0 1998
REC'D AND CHECKED IN BY

PROJECT DESCRIPTION Superior Plating - Southport

PROJECT NO. Compliance Test

PROJECT NAME Superior

FIELD SAMPLE NUMBER	DATE	TIME	COMPOSITE OR GRAB	ANALYSIS REQUIRED	SAMPLING TRAIN	SAMPLE DESCRIPTION	SPECIAL NOTES	SEND TO:
Test 1(SC-3, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-3, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-3, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 1(SC-3, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-3, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-3, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Blank		n/a	Grab	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
	Please Fax Results to Air Tox Environmental @ 860-487-5607							

Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Erik J Malby	10/19/98	M MacChance	10/20/98	4:00 p.m
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	

Attachment A.2.3
EHL Sample Analysis Reported October 26, 1998

LABORATORY ANALYSIS REPORT

Environmental Health Laboratory
a division of CIGNA Loss Control Services, Inc.

100 Sebethe Drive, Suite A-5
Cromwell, CT 06416
(800) 243-4903
Cromwell (860) 635-6475

Laboratories in Macon, GA and Cromwell, CT

CIGNA

To: Eric Mallory
Air Tox Environmental Co., Inc.
165 River Rd. Suite B-1
Willington, CT 06279

Report No.: 98J1104

P. O. No.: Superior plating Southport

Date Received: 10/20/98

Date Reported: 10/26/98

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-1, s1)	460	49.4
Test2 (sc1, s1)	470	50.4
Test3 (sc-1, s1)	440	42.0
Test1 (sc-1, s2)	590	51.0
Test2 (sc-1, s2)	600	50.8
Test3 (sc-1, s2)	600	49.6
Test1 (sc-2, s1)	410	63.9
Test2 (sc-2, s1)	500	57.4
Test3 (sc-2, s1)	580	50.6
Test1 (sc2, s2)	520	57.8
Test2 (sc2, s2)	420	68.0
Test3 (sc2, s2)	470	46.7

Analyst: Katie Shaw Katie Shaw

Date: 10/26/98

< = Less than

LABORATORY ANALYSIS REPORT (continued)

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-3, s1)	460	37.9
Test2 (sc-3, s1)	450	34.7
Test3 (sc-3, s1)	600	30.3
Test1 (sc-3, s2)	570	32.5
Test2 (sc-3, s2)	590	30.6
Test3 (sc-3, s2)	500	34.8
Blank	570	<2.5

Katie Shaw

Analyst Katie Shaw Date: 10/26/98

Attachment A.2.4
Armstrong Sample Analysis Report

Armstrong
Forensic Laboratory
330 Loch'n Green Trail Arlington, Texas 76012
817-275-2691 Fax 817-275-1883

Andrew T. Armstrong, PhD
John M. Corn, MS, RS
Marion K. Armstrong, MSPH, CIH

October 30, 1998

Mr. John Mulholland
Midwest Air Product Company, Inc.
281 Hughes Drive
Traverse City, MI 49685

Received: October 29, 1998
Submitted: 3 Solution Samples

LABORATORY REPORT: 98EN3637

Chromium - EPA Method 7190					Total mass
Lab No.	Client Description	Results	Detection Limits	Units	
1	Test 1-SC-3-S1	0.13	0.07	ppm(mg/L)	3.25
2	Test 2-SC-2-S2	2.68	0.07	ppm(mg/L)	67 µg
3	Blank	bdl	0.07	ppm(mg/L)	
bdl - below detection limit					

Joe Sikes

Joe Sikes, Director, Quality Control
AIHA Accreditation No: 363
AIHA ELLAP Accredited
//98-3637.doc /am

ARMSTRONG FORENSIC LABORATORY, INC

QA/QC ATTACHMENT REPORT: 98EN3637

Chromium			
Analyst	MR	Analysis Method	EPA 7190
Analysis Date	10/30/98	Matrix Spike Recovery %	100 (PS)
QC Date	10/30/98	Method Blank mg/L	<0.07

Armstrong Forensic Laboratory, Inc.

ADDRESS/TELEPHONE

330 Loch'n Green Trail
Arlington, TX 76012
817/275-2691

FAX NUMBER

817/275-1883

COVER PAGE

DATE: 10/29/98 TIME: _____ AM PM

TOTAL NUMBER OF PAGES 1 EXCLUDING COVER PAGE. PLEASE DELIVER AS SOON AS POSSIBLE.

TO:

NAME: John Sahnider

FIRM:

CITY:

FAX NO: 860-487-5607

FROM:

NAME: A. ARMSTRONG

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL ASAP.

OPERATOR:

NOTES:

Faxed analytical results are considered preliminary reports and are subject to change after review of all information.

Attachment A.2.5
RTI Sample Analysis Report

RESEARCH TRIANGLE INSTITUTE

Center for Environmental Measurements and Quality Assurance

November 6, 1998

Mr. John Mulholland
Midwest Air Products Company, Inc.
P.O. Box 5319
281 Hughes Drive
Traverse, Michigan 49686

Dear John:

Enclosed are the Cr analysis results as determined by ICP for the impinger samples received on October 29, 1998 for RTI Project No. 91C-7048-03M, Midwest Air Products Company, Inc. P.O. No. 216692.

If you have any questions, please call me at 919-541-6569 or Peter Grohse at 919-541-6897.

Sincerely,

Kate K. Luk, Ph.D.

kkl

Ref: 91C-7048-03M
cc: W. Gutknecht
P. Grohse
C. Decker
L. Bailey

3040 Cornwallis Road • Post Office Box 12194 • Research Triangle Park, North Carolina 27709-2194 USA
Telephone 919 541-6503 • Fax 919 541-5929

TECHNICAL REPORT

Client: Midwest Air Products, Inc.

Purchase Order No.: 216692

RTI Project No.: 7048-03M

Date: November 6, 1998

By

Kate K. Luk
Research Triangle Institute
Post Office Box 12194
3040 Cornwallis Road
Research Triangle Park, NC 27709

(919) 541-6569

Submitted to:

John Mulholland
Midwest Air Products, Inc.
P.O. Box 5319
281 Hughes Drive
Traverse City, Michigan 49686

/RTI

INTRODUCTION

Three impinger samples were received under Purchase No. 216692 on October 29, 1998 for hexavalent chromium analysis. .

ANALYSIS

The samples were analyzed as follows:

Digestion Method - None

Instrumentation - Leemans Plasma Spec ICP

Measurement Method - ICP/ AES

QA/QC - Duplicates, spikes, blanks, and calibration check solutions were used.

RESULTS

See Tables 1-4

COMMENTS

No problems encountered.

SAMPLE CUSTODY

Samples will be kept for 3 months after report is delivered.

RTI Project No.: 7048-03M

Samples: Impinger Samples
Company: Midwest Air Products, Inc. (P.O. 216692)
Analyte: Cr
Method of Analysis: ICP
Sample Received Date: 10-29-98
Analysis Date: 10-30-98
Report Date: 11-6-98

Table 1. Results for Impinger Samples

Sample	Cr ug/mL	Total ug
Test 2-SC1-S2	3.18	79.5 ug
Test 3-SC3-S1	0.200	5 ug
Blk	0.0450	
Detection Limit	0.006	

RTI Project No.: 7048-03M

Samples: QC for Impinger Samples
Company: Midwest Air Products, Inc. (P.O. 216692)
Analyte: Cr
Method of Analysis: ICP
Sample Received Date: 10-29-98
Analysis Date: 10-30-98
Report Date: 11-6-98

Table 2. Calibration Check Sample

Sample	Cr, ug/mL Measured	Cr, ug/mL Expected	Percent Cr Recovery
QC-1	1.02	1.00	102
QC-2	1.02	1.00	102

Table 3. Results of Blank and Duplicate Analysis

Sample	Cr, ug/ mL Measured	Duplicate Cr, ug/ mL Measured	Cr, ug/mL % RSD
RTI-BLK	< 0.006	--	--
Test 2-SC1-S2**	3.18	3.08	2.26

Note:
**: Matrix duplicate

RTI Project No.: 7048-03M

Samples: QC for Impinger Samples
Company: Midwest Air Products, Inc. (P.O. 216692)
Analyte: Cr
Method of Analysis: ICP
Sample Received Date: 10-29-98
Analysis Date: 10-30-98
Report Date: 11-6-98

Table 4. Results of Spike Analysis

Sample	Spike Cr, ug/mL Measured	Spike Cr, ug/mL Expected	Cr Spike Recovery,%
Test 3-SC3-S1**	0.919	1.00	91.9

Note:
**: Matrix Spike

RTI

DRAFT

RTI Project No.: 7048-03N

Samples: Impinger Samples
Company: Air Tox, Inc. (P.O. SUP-01)
Analyte: Cr
Method of Analysis: ICP
Sample Received Date: 11-4-98
Analysis Date: 11-5-98
Report Date: 11-6-98

Table 1. Results for Impinger Samples

Sample	Cr ug/mL	
T1-SC1-S1	2.68	67
T2-SC1-S1	2.59	65
T3-SC1-S1	1.92	48
T1-SC1-S2	2.63	66
T3-SC1-S2	1.77	44
T1-SC2-S1	3.18	79.5
T2-SC2-S1	3.20	80
T3-SC2-S1	3.12	78
T1-SC2-S2	3.52	88
T2-SC2-S2	3.72	93
T3-SC2-S2	2.73	68
T1-SC3-S1	0.130	3.25
T2-SC3-S1	0.850	21.25
T1-SC3-S2	0.775	19.38
T2-SC3-S2	0.760	19
T3-SC3-S2	0.435	10.9
Detection Limit	0.006	

RTI

DRAFT

RTI Project No.: 7048-03N

Samples: QC for Impinger Samples
Company: Air Tox, Inc. (P.O. SUP-01)
Analyte: Cr
Method of Analysis: ICP
Sample Received Date: 11-4-98
Analysis Date: 11-5-98
Report Date: 11-6-98

Table 4. Results of Spike Analysis

Sample	Spike Cr, ug/mL Measured	Spike Cr, ug/mL Expected	Cr Spike Recovery,%
T2-SC1-S1**	0.952	1.00	95.2
T2-SC3-S2**	1.09	1.00	109

Note:
**: Matrix Spike

DRAFT

RTI Project No.: 7048-03N

Samples: QC for Impinger Samples
Company: Air Tox, Inc. (P.O. SUP-01)
Analyte: Cr
Method of Analysis: ICP
Sample Received Date: 11-4-98
Analysis Date: 11-5-98
Report Date: 11-6-98

Table 2. Calibration Check Sample

Sample	Cr, ug/mL Measured	Cr, ug/mL Expected	Percent Cr Recovery
QC-1	1.02	1.00	102
QC-2	1.02	1.00	102

Table 3. Results of Blank and Duplicate Analysis

Sample	Cr, ug/ mL Measured	Duplicate Cr, ug/ mL Measured	Cr, ug/mL % RSD
RTI-BLK	< 0.006	–	--
T3-SC3-S2**	0.435	0.420	2.48
T2-SC2-S2**	3.72	3.58	2.72

Note:
**: Matrix duplicate

Attachment A.3
Compliance Testing Raw Data, October 1998

SUPERIOR
PLATING COMPANY

DIVISION SUPERIOR TECHNOLOGY
LACEY PLACE SOUTHPORT CONN. 06490

Phone 203-255-1501 Fax: 203-254-3618

PLEASE FORWARD THE FOLLOWING REPORT TO:

Name: Jon Fax No.: _____

Company: _____ From: Rich

Re: _____ Date: _____

Following are 4 pages, EXCLUDING this cover sheet. In the event of any difficulty, please call the DATA PROCESSING DEPT. At 203-255-1501.

These are the rectifier amperages for the given strike dates.

Call me if you have any questions.

Rich

10-13-9

TANK AMPERAGES

MIST ELIMINATOR SC-2

TIME	31	32	33	34	37	63 ALST	64	TEST AP
8:00	60	1330	275	500	4550	250	1700	2.8
8:10	70	1185	1250	1485	4000	250	1600	2.8
8:20					3650			
8:30								
8:40								
8:50								
9:00								
9:10								
9:20								
9:30								
9:40								
9:50	60	1330	275	500	4500	250	1700	2.8
10:00	70	1185	1250	1485	4000	250	1800	2.8
10:10	360	1215	1450	2000	3650	250	1800	2.8
10:20	360	1190	1425	1520	3650	250	1800	2.8
10:30	2700	1460	1650	1750	3700	250	1850	2.8
10:40	1600	1460	1375	1335	3700	250	1800	2.8
10:50	1730	1460	1375	1870	3650	250	1850	2.8
11:00	1730	1360	1375	1845	3700	225	1850	2.8
11:10	1430	1155	1375	1820	3800	205	1875	2.8
11:20	1430	1155	835	1875	3900	205	1875	2.8
11:30	1345	1150	875	1945	3900	205	1875	2.8
11:40	1445	1160	1450	1925	3850	210	1900	2.8
11:50	1430	1160	1375	1950	3850	195	1900	2.8
12:00	1450	1160	1400	1925	3900	250	1900	2.7
12:10	1450	1165	1425	1925	3900	260	2000	2.7
12:20	1450	1160	1425	1965	3850	250	1950	2.8
12:30	1450	1165	1460	1970	3850	250	1900	2.8
12:40	1450	1165	1470	1965	3900	250	2000	2.8
12:50	1450	1965	1600	1750	2500	250	2000	2.8
13:00	1380	1965	2100	2300	2700	250	2000	2.7
13:10	1430	2100	2200	2150	2700	250	2000	2.7
13:20	1430	1500	1100	1950	2700	250	2000	2.8
13:30	1430	1500	1600	2150	2700	250	2000	2.8
13:40	1430	1500	1600	1950	2700	250	2000	2.8
13:50	1430	1500	1600	1950	5500	250	2000	2.8
14:00	1430	1500	1800	1800	5500	250	2000	2.7
14:10	1430	1500	1600	1800	2700	250	2000	2.8
14:20	1430	1500	2000	1400	2700	250	2000	2.8
14:30	1430	1400	2000	600	2700	220	2000	2.8
14:40	1430	1400	2000	600	2700	220	2000	2.8
14:50	1430	1550	2000	600	2700	220	2000	2.8
15:00	1430	2200	2000	900	2700	200	2000	2.8
15:10	1430	2200	1500	1200	3200	200	2000	2.8
15:20	1430	2200	2000	1700	3200	200	2000	2.8
15:30	1430	2200	2000	1400	3200	200	2000	2.8
15:40	1430	2200	2000	1300	5700	200	2000	2.8
15:50	1430	2200	2000	1700	5700	200	2000	2.8
16:00	1130	2200	2000	1300	2700	200	2000	2.8
16:10	1130	2200	2000	1300	2700	200	2000	2.8
16:20	1130	2200	2000	1300	4000	200	2000	2.8
16:30	1130	2200	900	1300	4000	200	2000	2.8
16:40	1130	2330	900	1300	2700	180	2100	2.8
16:50	1130	2330	900	1300	2700	180	2100	2.7
17:00	1130	2330	900	1300	2700	180	2100	2.8
17:10	1130	2330	900	1300	5700	180	2100	2.8
17:20	1130	2150	900	1300	4200	180	2100	3.0

RJC

(OVA)

7.30 1130 2150 900 1300 2700 1.90 2100 3.0

10-13-98 page 2

TANK AMPERAGES

MIST ELIMINATOR SC-1 10-14-98

55	TIME		43	44	56	45	46	60	61	62	63
	Δp	8:00									
		8:10									
		8:20									
		8:30									
		8:40									
		8:50									
		9:00									
		9:10									
		9:20		1270							
950	3.7	9:30	870	1280	1290	3230	2060	2000	7400	1000	0
1100	3.7	9:40	870	1280	[illegible]	3230	2170	2000	7450	1000	1100
1080	3.7	9:50	870	1250	[illegible]	3100	1800	2000	7450	1000	1100
1050	3.7	10:00	875	1270	1320	3120	2150	1000	7650	1000	1000
1050	3.7	10:10	905	1270	1200	3160	2200	1500	7700	1000	950
1050	3.7	10:20	805	1270	1610	3110	2200	1500	7750	1000	950
1050	3.7	10:30	805	1270	1600	3110	2200	1500	7750	1000	[illegible]
1080	3.7	10:40	890	2450	1640	2960	1940	1500	7750	1000	1100
1080	3.7	10:50	890	2450	1640	2960	1940	1500	7750	1000	1100
1080	3.7	11:00	910	1920	1516	2960	1950	1500	7750	1000	1100
1080	3.7	11:10	910	1520	1526	2960	1940	1500	7750	1000	1100
1080	3.7	11:20	910	1150	1530	3000	1950	1500	7750	1000	1100
1080	3.7	11:30	875	1580	1200	3100	1850	1500	7750	1000	1100
1080	3.7	11:40	870	1480	1180	4020	1850	1500	7750	1000	1100
1080	3.7	11:50	910	1420	1180	4000	1850	1500	7750	1000	1100
1250	3.7	12:00	1180	1590	1490	4070	2050	1500	7800	1000	1150
1250	3.7	12:10	1180	1590	1490	4070	2050	1500	7800	1000	1150
1230	3.7	12:20	925	1570	1490	4275	2050	1500	7400	1000	1200
1230	3.7	12:30	925	1590	1430	4210	2050	500	7375	1000	1050
1230	3.7	12:40	925	1590	1430	4200	2050	1300	7375	1000	1050
1340	3.7	12:50	1000	1700	1600	4050	2050	1325	7400	1000	1000
1340	3.8	13:00	1000	1710	1600	4050	2050	1325	7400	1000	1000
1340	3.8	13:10	980	1720	1650	4050	750	1325	7400	1000	1000
1340	3.8	13:20	960	1710	1650	4200	750	1325	7400	1000	1000
1340	3.8	13:30	960	1710	1650	4215	750	1325	7325	1000	1000
1500	3.7	13:40	1000	1760	1650	4215	750	1325	740	1000	1000
1500	3.7	13:50	1000	1760	1650	4260	750	1325	7500	1000	1000
1500	3.7	14:00	905	1765	2115	4670	[illegible]	1250	7310	1000	1000
150	3.7	14:10	1015	1480	2000	4700	730	1350	7300	1000	1000
150	3.6	14:20	1015	1485	1695	4550	740	1300	7350	1000	1000
150	3.6	14:30	1015	1480	1655	4550	740	1350	7350	1000	1000
150	3.6	14:40	955	1440	1295	5505	785	1400	7400	1000	1000
150	3.6	14:50	955	1470	1755	5460	645	1350	7400	1000	1000
150	3.6	15:00	920	1435	1200	5460	625	1350	7350	1000	1000
750	3.6	15:10	930	1470	1245	5590	625	1350	7250	1000	1000
750	3.6	15:20	970	1395	1760	5550	625	1350	7250	1000	1200
750	3.6	15:30	970	1425	1640	5590	635	1350	7550	1000	1200
750	3.6	15:40	980	1545	1680	5550	635	1400	7550	1000	1250
750	3.6	15:50	960	1555	1660	5500	625	1400	7450	1000	1300
750	3.6	16:00	935	1585	1660	5550	625	1400	5300	1000	1250
750	3.6	16:10	935	1585	1670	5550	625	1400	5300	1000	1300
750	3.6	16:20	940	1615	1750	5550	625	1400	5300	1000	1300
750	3.6	16:30	940	1640	1735	5540	625	1400	3000	1000	1350
		16:40									
		16:50									
		17:00									

TANK AMPERAGES

MIST ELIMINATOR SC-3

10-15-98

TIME	20	21	18	23	26	19	ΔP	TEST
8:00								
8:10	[illegible]	210	2600	1680	750	75[illegible]	3.1	
8:20	0	210	2600	1680	750	0	3.1	
8:30	0	210	2700	1680	1700	3050	3.1	
8:40	200	0	2700	1680	1650	5150	3.1	
8:50	480	0	2600	4280	1650	5000	3.1	
9:00	500	0	2600	4880	1650	5100	3.0	
9:10	500	0	1800	4880	1650	5100	3.0	
9:20	0	0	1700	4880	1700	5000	3.0	
9:30	0	140	1350	4880	1700	5000	3.0	
9:40	250	140	2300	4880	3450	5100	3.0	
9:50	400	140	1650	4980	3500	5150	3.0	
10:00	400	0	2450	4650	3500	5150	3.0	
10:10	400	0	2500	4680	2500	5150	3.0	
10:20	0	0	2650	4680	2500	5150	3.0	
10:30	300	140	1650	4680	2500	5150	3.0	
10:40	400	140	1650	4680	2500	5150	3.0	
10:50	400	140	1700	4680	2600	5150	3.0	
11:00	400	0	1750	4980	2550	5100	3.0	
11:10	0	0	1950	4780	2550	5150	3.0	
11:20	0	140	2050	4860	2600	5150	3.0	
11:30	270	140	2050	4860	2600	5150	3.0	
11:40	300	140	2250	4810	2600	5150	3.0	
11:50	400	140	2250	4910	2700	5150	3.0	
12:00	400	0	3250	4980	2800	5150	3.0	
12:10	0	0	3250	4990	2830	5250	3.0	
12:20	0	140	2250	4990	2900	5300	3.0	
12:30	270	56	2250	4990	2950	5300	3.0	
12:40	4360	120	3200	4980	3000	5300	3.0	
12:50	560	200	2300	4980	3000	5300	3.0	
13:00	560	200	3200	4980	3000	5300	3.0	
13:10	460	200	3300	4980	3000	5300	3.0	
13:20	160	120	2200	4980	3000	5300	3.0	
13:30	310	160	2200	4980	3650	5300	3.2	
13:40	460	160	3200	4980	3700	5300	3.1	
13:50	460	160	2200	4980	3700	5300	3.1	
14:00	460	120	2300	4980	3700	5300	3.0	
14:10	460	120	2300	5000	3700	1700	3.0	
14:20	310	120	2900	5000	3700	1700	3.0	
14:30	160	160	2000	4890	3700	1700	3.0	
14:40	170	120	3000	4890	3700	3700	3.0	
14:50	170	120	3000	4890	3700	3700	3.0	
15:00	180	160	2000	4890	3700	3700	3.0	
15:10	180	160	2000	4890	3700	3700	3.0	
15:20	180	160	2000	4900	3700	3700	3.0	
15:30	180	160	2000	4900	3700	3700	3.0	
15:40	180	120	1050	4900	3700	3700	3.0	
15:50	180	120	1050	4900	3700	3700	3.0	
16:00	180	120	1050	4900	3700	3700	3.0	
16:10	180	120	1250	4900	3700	3700	3.0	
16:20	180	120	1250	4900	3700	3700	3.0	
16:30	180	120	1250	4900	3700	3700	3.0	
16:40	180	120	1250	4900	3700	3700	3.0	
16:50	180	120	1350	4900	2800	3700	3.0	
17:00	180	120	1250	4900	2800	3700	3.0	
17:10	180	120	1350	4900	4600	3750	3.0	
17:20	180	120	1150	6100	4650	4800	3.0	
17:30	180	120	1150	6100	4650	4800	3.3	
17:40	180	120	1150	6100	4650	5050	3.3	

amp 21 120

Amp 20 170

23 -1200 on morning

LABORATORY ANALYSIS REPORT

Environmental Health Laboratory
a division of CIGNA Loss Control Services, Inc.

100 Sebethe Drive, Suite A-5
Cromwell, CT 06416
(800) 243-4903
Cromwell (860) 635-6475
Laboratories in Macon, GA and Cromwell, CT

CIGNA

To: Eric Mallory
Air Tox Environmental Co., Inc.
165 River Rd. Suite B-1
Willington, CT 06279

Report No.: 98J1104

P. O. No.: Superior plating Southport

Date Received: 10/20/98

Date Reported: 10/26/98

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-1, s1)	460	49.4
Test2 (sc1, s1)	470	50.4
Test3 (sc-1, s1)	440	42.0
Test1 (sc-1, s2)	590	51.0
Test2 (sc-1, s2)	600	50.8
Test3 (sc-1, s2)	600	49.6
Test1 (sc-2, s1)	410	63.9
Test2 (sc-2, s1)	500	57.4
Test3 (sc-2, s1)	580	50.6
Test1 (sc2, s2)	520	57.8
Test2 (sc2, s2)	420	68.0
Test3 (sc2, s2)	470	46.7

Analyst: Katie Shaw Katie Shaw Date: 10/26/98

< = Less than

LABORATORY ANALYSIS REPORT (continued)

Report No.: 98J1104

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-3, s1)	460	37.9
Test2 (sc-3, s1)	450	34.7
Test3 (sc-3, s1)	600	30.3
Test1 (sc-3, s2)	570	32.5
Test2 (sc-3, s2)	590	30.6
Test3 (sc-3, s2)	500	34.8
Blank	570	<2.5

Katie Shaw

Analyst _____ Date: 10/26/98

Start Time 9:28 End Time 11:34

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-1	Stack Diameter	36 in.
Operator:	MJF	Calibration Factor (Y)	1.040
Date:	10/14/95	Pitot Coeff. (Cp)	0.84
Run No.	1	Baro. Press (Pbar)	29.93 "Hg

ΔHa = 1.590

Leak rate before run	<0.01 cfm @ 8"Hg	Leak rate after run	<0.01 cfm @ 6"Hg
Stack Temp. Start	68 °F	Stack Temp. End	72 °F
Meter Volume Start	212.09 cu. ft.	Meter Volume End	297.13 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	5.0	5.0	62/61	1	4.8	63.7	74/68
2	5.0	10.0	66/61	2	5.1	68.8	75/68
3	5.0	15.0	69/62	3	5.4	74.1	75/68
4	5.0	20.0	71/63	4	5.4	79.5	76/69
5	4.9	24.9	72/64	5	5.2	84.7	76/69
6	4.8	29.7	73/65	6	4.9	89.7	76/69
7	4.9	34.6	74/66	7	4.8	94.5	76/69
8	4.9	39.6	74/66	8	5.0	99.5	77/69
9	4.9	44.5	75/66	9	5.2	104.7	77/70
10	4.9	49.4	75/67	10	5.2	109.9	77/70
11	4.8	54.3	75/68	11	5.2	115.1	76/70
12	4.6	58.9	75/68	12	4.9	120.0	76/70

Total Sample Volume 85.04 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 70.4 (deg F)

EPA
CDA
10/14/95

Start 11:56
End: 13:59

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-1	Stack Diameter	36 in.
Operator:	JES	Calibration Factor (Y)	1.040
Date:	10/14/98	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	29.80 "Hg
		ΔH@	1.590
Leak rate before run	<0.01 @8" cfm	Leak rate after run	<0.01 @6" Hg cfm
Stack Temp. Start	77 °F	Stack Temp. End	60 °F
Meter Volume Start	297.275 cu. ft.	Meter Volume End	384.755 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	5.0	5.0	72/68	1	4.8	63.7	75/71
2	5.0	10.0	72/68	2	5.1	68.8	75/71
3	5.0	15.0	74/68	3	5.4	74.1	76/71
4	5.0	20.0	75/69	4	5.4	79.5	77/72
5	4.9	24.9	76/69	5	5.2	84.7	78/72
6	4.8	29.7	76/69	6	4.9	89.7	78/72
7	4.9	34.6	76/69	7	4.8	94.5	78/73
8	4.9	39.6	76/69	8	5.0	99.5	78/73
9	4.9	44.5	77/70	9	5.2	104.7	78/73
10	4.9	49.4	77/71	10	5.2	109.9	78/74
11	4.8	54.3	77/71	11	5.2	115.1	78/74
12	4.6	58.9	77/71	12	4.9	120.0	78/74

EPH
CJH
10/14/98

Total Sample Volume 87.48 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 74 (deg F)

Start 14:27

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-1	Stack Diameter	36 in.
Operator:	JES	Calibration Factor (Y)	1.040
Date:	10/14/03	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	29.74 "Hg
		ΔH@ 1.590	0.01 @ 5" Hg
Leak rate before run	0.01 cfm 0.7" Hg	Leak rate after run	~~475.6~~ 478.6 cfm
Stack Temp. Start	80 °F	Stack Temp. End	80 °F
Meter Volume Start	384.875 cu. ft.	Meter Volume End	470.697 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	5.0	5.0	72/72	1	4.8	63.7	77/72
2	5.0	10.0	75/72	2	5.1	68.8	77/72
3	5.0	15.0	75/72	3	5.4	74.1	78/72
4	5.0	20.0	74/72	4	5.4	79.5	78/72
5	4.9	24.9	74/71	5	5.2	84.7	78/72
6	4.8	29.7	74/71	6	4.9	89.7	79/72
7	4.9	34.6	74/71	7	4.8	94.5	78/73
8	4.9	39.6	74/71	8	5.0	99.5	78/73
9	4.9	44.5	75/71	9	5.2	104.7	75/73
10	4.9	49.4	75/71	10	5.2	109.9	78/73
11	4.8	54.3	75/71	11	5.2	115.1	78/74
12	4.6	58.9	76/71	12	4.9	120.0	77/73

Total Sample Volume 85.822 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 74 (deg F)

EPA
AVH
10/14/03

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Start 9.25
End. 11:[illegible]

Facility: Superior Plating - Southport

Location: SC-1

Operator: JES

Date: 10/14/98

Run No. 1

Stack No. or ID S-2

Stack Diameter 36 in.

Calibration Factor (Y) 1.052

Pitot Coeff. (Cp) 0.84

Baro. Press (Pbar) 29.83 "Hg

Leak rate before run <0.01 cfm @ 8" Hg

Stack Temp. Start 68 °F

Meter Volume Start 260.455 cu. ft.

Leak rate after run <0.01 cfm @ 8" Hg

Stack Temp. End 73 °F

Meter Volume End 346.01 cu. ft.

SAMPLE PORT 1			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.9	4.9 54	68/63
2	5.3	10.2 12	76/63
3	5.3	15.5 30	78/65
4	5.2	20.7 42	80/64
5	5.1	25.9 54	81/66
6	5.0	30.9 54	81/66
7	5.1	36.0 0	82/68
8	5.2	41.1 6	81/68
9	5.2	46.3 18	83/69
10	5.2	51.5 30	83/69
11	5.3	56.8 40	83/70
12	4.8	61.6 36	84/71

SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.1	65.7 12	80/71
2	4.4	70.1 06	83/71
3	4.6	74.7 42	84/72
4	4.7	79.4 24	84/72
5	4.8	84.2 12	85/72
6	4.9	89.1 06	84/72
7	5.0	94.1 06	83/72
8	5.1	99.2 12	84/72
9	5.2	104.4 24	85/73
10	5.2	109.6 36	85/73
11	5.3	114.9 54	84/73
12	5.1	120.0 0	82/73

Total Sample Volume 85.555 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 76 (deg F)

EPA avg 10/14

SUPERIOR
PLATING COMPANY

DIVISION SUPERIOR TECHNOLOGY
LACEY PLACE SOUTHPORT CONN. 06490

Phone 203-255-1501 Fax: 203-254-3618

PLEASE FORWARD THE FOLLOWING REPORT TO:

Name: Jon Fax No.: _____

Company: _____ From: Rich

Re: _____ Date: _____

Following are 4 pages, EXCLUDING this cover sheet. In the event of any difficulty, please call the DATA PROCESSING DEPT. At 203-255-1501.

These are the rectifier amperages for the given strike dates.

Call me if you have any questions.

Rich

10-15-7

TANK AMPERAGES

MIST ELIMINATOR SC-2

TIME	31	32	33	34	37	ALST 68	64	ΔP TEST
8:00	60	1330	275	500	4550	250	1700	2.8
8:10	70	1185	1250	1455	4000	250	1800	2.8
8:20					3650			
8:30								
8:40								
8:50								
9:00								
9:10								
9:20								
9:30								
9:40								
9:50	60	1330	275	500	4500	250	1700	2.8
10:00	70	1185	1250	1455	4000	250	1800	2.8
10:10	360	1215	1450	2000	3650	250	1800	2.8
10:20	360	1190	1425	1520	3650	250	1800	2.8
10:30	2700	1460	1650	1750	3700	250	1850	2.8
10:40	1600	1460	1275	1335	3260	250	1800	2.8
10:50	1730	1460	1275	1870	3650	250	1850	2.8
11:00	1730	1360	1275	1845	3700	225	1850	2.8
11:10	1430	1155	1375	1820	3500	205	1875	2.8
11:20	1430	1155	835	1875	3900	205	1875	2.8
11:30	1345	1150	875	1945	3900	205	1875	2.8
11:40	1445	1160	1450	1925	3850	210	1900	2.8
11:50	1430	1160	1375	1950	3850	195	1900	2.8
12:00	1450	1160	1400	1925	3900	250	1900	2.7
12:10	1450	1165	1425	1925	3900	260	2000	2.7
12:20	1450	1160	1425	1965	3850	250	1950	2.8
12:30	1450	1165	1460	1970	3850	250	1900	2.8
12:40	1450	1165	1470	1965	3900	250	2000	2.8
12:50	1450	1965	1600	1750	2500	250	2000	2.8
13:00	1380	1965	2100	2300	2700	250	2000	2.7
13:10	1430	2100	2200	2150	2700	250	2000	2.7
13:20	1430	1500	1100	1950	2700	250	2000	2.8
13:30	1430	1500	1600	2150	2700	250	2000	2.8
13:40	1430	1500	1600	1950	2700	250	2000	2.8
13:50	1430	1500	1600	1950	5500	250	2000	2.8
14:00	1430	1500	1800	1800	5500	250	2000	2.7
14:10	1430	1500	1600	1800	2700	250	2000	2.8
14:20	1430	1500	2600	1400	2700	250	2000	2.8
14:30	1430	1400	2000	600	2700	220	2000	2.8
14:40	1430	1400	2000	600	2700	220	2000	2.8
14:50	1430	1550	2000	600	2700	220	2000	2.8
15:00	1430	2200	2000	900	2700	200	2000	2.8
15:10	1430	2200	1500	1200	3200	200	2000	2.8
15:20	1430	2200	2000	1700	3200	200	2000	2.8
15:30	1430	2200	2000	1400	3200	200	2000	2.8
15:40	1430	2200	2000	1300	5700	200	2000	2.8
15:50	1430	2200	2000	1700	5700	200	2000	2.8
16:00	1130	2200	2000	1300	2700	200	2000	2.8
16:10	1130	2200	2000	1300	2700	200	2000	2.8
16:20	1130	2200	2000	1300	4000	200	2000	2.8
16:30	1130	2200	900	1300	4000	200	2000	2.8
16:40	1130	2330	900	1300	2700	180	2100	2.8
16:50	1130	2330	900	1300	2700	180	2100	2.7
17:00	1130	2330	900	1300	2700	180	2100	2.8
17:10	1130	2330	900	1300	5700	180	2100	2.8
17:20	1130	2150	900	1300	4200	180	2100	3.0

RDC
(DVG)

1130 1150 2150 900 1300 2700 1.90 2100 5.0

10-13-98 page 2

TANK AMPERAGES

MIST ELIMINATOR SC-1 10-14-98

55	TIME		43	44	56	45	46	60	61	62	63
	ΔP	8:00									
		8:10									
		8:20									
		8:30									
		8:40									
		8:50									
		9:00									
		9:10		1270							
		9:20									
950	3.7	9:30	870	1280	1290	3230	2060	2000	7400	1000	0
1100	3.7	9:40	870	1280	[illegible]	3220	2170	2000	7450	1000	1100
1080	3.7	9:50	870	1250	[illegible]	3100	1800	2000	7450	1000	1100
1050	3.7	10:00	875	1270	1320	3120	2150	1000	7650	1000	1000
1050	3.7	10:10	905	1270	1200	3160	2200	1500	7700	1000	950
1050	3.7	10:20	805	1270	1610	3110	2200	1500	7750	1000	950
1050	3.7	10:30	805	1270	1600	3110	2200	1500	7750	1000	[illegible]
1080	3.7	10:40	890	2450	1640	2960	1940	1500	7750	1000	1100
1080	3.7	10:50	890	2450	1640	2960	1940	1500	7750	1000	1100
1080	3.7	11:00	910	1920	1516	2960	1950	1500	7750	1000	1100
1080	3.7	11:10	910	1520	1326	2960	1945	1500	7750	1000	1100
1080	3.7	11:20	910	1150	1330	3000	1950	1500	7750	1000	1100
1080	3.7	11:30	875	1580	1200	3100	1850	1500	7750	1000	1100
1080	3.7	11:40	870	1480	1180	4070	1850	1500	7750	1000	1100
1080	3.7	11:50	910	1420	1180	4000	1850	1500	7750	1000	1100
1250	3.7	12:00	1180	1590	1490	4070	2050	1500	7800	1000	1150
1250	3.7	12:10	1180	1590	1490	4070	2050	1500	7800	1000	1150
1230	3.7	12:20	925	1570	1490	4275	2050	1500	7400	1000	1200
1230	3.7	12:30	925	1590	1430	4210	2050	500	7375	1000	1050
1230	3.7	12:40	925	1590	1430	4200	2050	1300	7375	1000	1050
1340	3.7	12:50	1000	1700	1600	4050	2050	1325	7400	1000	1000
1340	3.8	13:00	1000	1710	1600	4050	2050	1325	7400	1000	1000
1340	3.8	13:10	980	1720	1650	4050	750	1325	7400	1000	1000
1340	3.8	13:20	960	1710	1650	4200	750	1325	7400	1000	1000
1340	3.8	13:30	960	1710	1650	4215	750	1325	7325	1000	1000
1500	3.7	13:40	1000	1760	1650	4215	750	1325	7400	1000	1000
1500	3.7	13:50	1000	1760	1650	4260	750	1325	7500	1000	1000
150	3.7	14:00	905	1765	2115	4670	[illegible]	1250	7310	1000	1000
150	3.7	14:10	1015	[illegible]	2000	4700	730	1350	7300	1000	1000
150	3.6	14:20	1015	1485	1695	4850	740	1300	7350	1000	1000
150	3.6	14:30	1015	1480	1695	4850	740	1350	7350	1000	1000
150	3.6	14:40	955	1440	1295	5505	785	1400	7400	1000	1000
150	3.6	14:50	955	1470	1255	5460	645	1350	7400	1000	1000
150	3.6	15:00	920	1435	1200	5460	625	1350	7350	1000	1000
750	3.6	15:10	930	1470	1245	5590	625	1350	7250	1000	1000
750	3.6	15:20	970	1395	1760	5550	625	1350	7250	1000	1000
750	3.6	15:30	970	1425	1640	5590	635	1350	7550	1000	1000
750	3.6	15:40	980	1545	1680	5550	635	1400	7550	1000	1250
750	3.6	15:50	960	1555	1660	5500	625	1400	7450	1000	1300
750	3.6	16:00	935	1585	1660	5550	625	1400	5300	1000	1250
750	3.6	16:10	935	1585	1670	5550	625	1400	5300	1000	1300
750	3.6	16:20	940	1615	1750	5550	625	1400	5300	1000	1300
750	3.6	16:30	940	1640	1735	5540	625	1400	3000	1000	1350
		16:40									
		16:50									
		17:00									

TANK AMPERAGES

MIST ELIMINATOR SC-3

0-15-98

TIME	20	21	18	23	26	19	ΔP	TEST
8:00								
8:10	[illegible]	210	2600	1680	750	5050	3.1	
8:20	0	210	2600	1680	1750	0	3.1	
8:30	0	210	2700	1680	1700	5050	3.1	
8:40	200	0	2700	1680	1650	5150	3.1	
8:50	480	0	2600	4280	1650	5000	3.1	
9:00	500	0	2600	4880	1650	5100	3.0	
9:10	500	0	1800	4880	1650	5100	3.0	
9:20	0	0	1700	4880	1700	5000	3.0	
9:30	0	140	1350	4880	1700	5000	3.0	
9:40	230	140	2300	4880	3450	5100	3.0	
9:50	400	140	1650	4980	3500	5150	3.0	
10:00	400	0	2450	4650	3500	5150	3.0	
10:10	400	0	2500	4680	2500	5150	3.0	
10:20	0	0	2650	4680	2500	5150	3.0	
10:30	300	140	1650	4680	2500	5150	3.0	
10:40	400	140	1650	4680	2500	5150	3.0	
10:50	400	140	1700	4680	2600	5150	3.0	
11:00	400	0	1750	4780	2550	5100	3.0	
11:10	0	0	1950	4780	2550	5150	3.0	
11:20	0	140	2050	4860	2600	5150	3.0	
11:30	270	140	2050	4860	2600	5150	3.0	
11:40	300	140	2250	4810	2600	5150	3.0	
11:50	400	140	2250	4910	2700	5150	3.0	
12:00	400	0	2350	4980	2800	5150	3.0	
12:10	0	0	2250	4990	2850	5250	3.0	
12:20	0	140	2250	4990	2900	5300	3.0	
12:30	270	56	2250	4990	2950	5300	3.0	
12:40	460	120	3200	4980	3000	5300	3.0	
12:50	460	200	2300	4980	3000	5300	3.0	
13:00	560	200	3200	4980	3000	5300	3.0	
13:10	460	200	3300	4980	3000	5300	3.0	
13:20	160	120	2200	4980	3000	5300	3.0	
13:30	310	160	2200	4980	3650	5300	3.2	
13:40	460	160	3200	4980	3700	5300	3.1	
13:50	460	160	2200	4980	3700	5300	3.1	
14:00	460	120	2300	4980	3700	5300	3.0	
14:10	460	120	2300	5000	3700	1700	3.0	
14:20	310	120	2900	5000	3700	1700	3.0	
14:30	160	160	2000	4890	3700	1700	3.0	
14:40	170	120	3000	4890	3700	3700	3.0	
14:50	170	120	3000	4890	3700	3700	3.0	
15:00	180	160	2000	4890	3700	3700	3.0	
15:10	180	160	2000	4890	3700	3700	3.0	
15:20	180	160	2000	4900	3700	3700	3.0	
15:30	180	160	2000	4900	3700	3700	3.0	
15:40	180	120	1050	4900	3700	3700	3.0	
15:50	180	120	1050	4900	3700	3700	3.0	
16:00	180	120	1050	4900	3700	3700	3.0	
16:10	180	120	1250	4900	3700	3700	3.0	
16:20	180	120	1250	4900	3700	3700	3.0	
16:30	180	120	1250	4900	3700	3700	3.0	
16:40	180	120	1250	4900	3700	3700	3.0	
16:50	180	120	1350	4900	2800	3700	3.0	
17:00	180	120	1250	4900	2800	3700	3.0	
17:10	180	120	1350	4900	4600	3750	3.0	
17:20	180	120	1150	6100	4650	4800	3.0	
17:30	180	120	1150	6100	4650	4800	3.3	
17:40	180	120	1150	6100	4650	5050	3.3	

amp 21 120

amp 20 170

23 -1200 on morning

page 6

LABORATORY ANALYS REPORT

Environmental H h Laboratory
a division of CIGNA Control Services, Inc.

100 Sebethe Drive, Suite A-5
Cromwell, CT 06416
(800) 243-4903
Cromwell (860) 635-6475
Laboratories in Macon, GA and Cromwell, CT

CIGNA

To: Eric Mallory
Air Tox Environmental Co., Inc.
165 River Rd. Suite B-1
Willington, CT 06279

Report No.: 98J1104

P. O. No.: Superior plating Southport

Date Received: 10/20/98

Date Reported: 10/26/98

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-1, s1)	460	49.4
Test2 (sc1, s1)	470	50.4
Test3 (sc-1, s1)	440	42.0
Test1 (sc-1, s2)	590	51.0
Test2 (sc-1, s2)	600	50.8
Test3 (sc-1, s2)	600	49.6
Test1 (sc-2. s1)	410	63.9
Test2 (sc-2, s1)	500	57.4
Test3 (sc-2, s1)	580	50.6
Test1 (sc2, s2)	520	57.8
Test2 (sc2, s2)	420	68.0
Test3 (sc2, s2)	470	46.7

Analyst: Katie Shaw Katie Shaw

Date: 10/26/98

< = Less than

Sample #	Impinger Volume (ml)	ug Chromium
Test1 (sc-3, s1)	460	37.9
Test2 (sc-3, s1)	450	34.7
Test3 (sc-3, s1)	600	30.3
Test1 (sc-3, s2)	570	32.5
Test2 (sc-3, s2)	590	30.6
Test3 (sc-3, s2)	500	34.8
Blank	570	<2.5

Katie Shaw

Analyst

10/26/98

Date:

Start Time 9:28 End Time 11:34

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-1	Stack Diameter	36 in.
Operator:	MJF	Calibration Factor (Y)	1.040
Date:	10/14/95	Pitot Coeff. (Cp)	0.84
Run No.	1	Baro. Press (Pbar)	29.93 "Hg

ΔH@ = 1.590

Leak rate before run	<0.01 cfm @ 8"Hg	Leak rate after run	<0.01 cfm @ 6"Hg
Stack Temp. Start	68 °F	Stack Temp. End	72 °F
Meter Volume Start	212.09 cu. ft.	Meter Volume End	297.13 cu. ft.

SAMPLE PORT 1				SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	5.0	5.0	62/61	1	4.8	63.7	74/68
2	5.0	10.0	66/61	2	5.1	68.8	75/68
3	5.0	15.0	69/62	3	5.4	74.1	75/68
4	5.0	20.0	71/63	4	5.4	79.5	76/69
5	4.9	24.9	72/64	5	5.2	84.7	76/69
6	4.8	29.7	73/65	6	4.9	89.7	76/69
7	4.9	34.6	74/66	7	4.8	94.5	76/69
8	4.9	39.6	74/66	8	5.0	99.5	77/69
9	4.9	44.5	75/66	9	5.2	104.7	77/70
10	4.9	49.4	75/67	10	5.2	109.9	77/72
11	4.8	54.3	75/68	11	5.2	115.1	76/72
12	4.6	58.9	75/68	12	4.9	120.0	76/72

Total Sample Volume 85.04 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 70.4 (deg F)

EPA
CDH
10/14/95

START 11:50
END 13:59

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-1	Stack Diameter	36 in.
Operator:	ES	Calibration Factor (Y)	1.040
Date:	10/14/98	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	29.80 "Hg
		ΔH@	1.590
Leak rate before run	<0.01 @ 8" cfm	Leak rate after run	<0.01 @ 6" Hg cfm
Stack Temp. Start	77 °F	Stack Temp. End	80 °F
Meter Volume Start	297.275 cu. ft.	Meter Volume End	384.755 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	5.0	5.0	72/68	1	4.8	63.7	75/71
2	5.0	10.0	72/68	2	5.1	68.8	75/71
3	5.0	15.0	74/68	3	5.4	74.1	76/71
4	5.0	20.0	75/69	4	5.4	79.5	77/72
5	4.9	24.9	76/69	5	5.2	84.7	78/72
6	4.8	29.7	76/69	6	4.9	89.7	78/72
7	4.9	34.6	76/69	7	4.8	94.5	78/73
8	4.9	39.6	76/69	8	5.0	99.5	78/73
9	4.9	44.5	77/70	9	5.2	104.7	78/73
10	4.9	49.4	77/71	10	5.2	109.9	78/74
11	4.8	54.3	77/71	11	5.2	115.1	78/74
12	4.6	58.9	77/71	12	4.9	120.0	78/74

EPH
CJH
10/14/98

Total Sample Volume 87.48 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 74 (deg F)

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-1	Stack Diameter	36 in.
Operator:	JES	Calibration Factor (Y)	1.040
Date:	10/14/03	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	29.74 "Hg
		ΔH@ 1.59	0.01 @ 5" Hg
Leak rate before run	0.01 @7"Hg cfm	Leak rate after run	~~475.6~~ ECD cfm
Stack Temp. Start	80 °F	Stack Temp. End	80 °F
Meter Volume Start	384.875 cu. ft.	Meter Volume End	470.697 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	5.0	5.0	72/72	1	4.8	63.7	77/72
2	5.0	10.0	75/72	2	5.1	68.8	77/72
3	5.0	15.0	75/72	3	5.4	74.1	75/72
4	5.0	20.0	74/72	4	5.4	79.5	75/72
5	4.9	24.9	74/71	5	5.2	84.7	78/72
6	4.8	29.7	74/71	6	4.9	89.7	79/72
7	4.9	34.6	74/71	7	4.8	94.5	78/73
8	4.9	39.6	74/71	8	5.0	99.5	78/73
9	4.9	44.5	75/71	9	5.2	104.7	75/73
10	4.9	49.4	75/71	10	5.2	109.9	75/73
11	4.8	54.3	75/71	11	5.2	115.1	78/74
12	4.6	58.9	76/71	12	4.9	120.0	77/73

Total Sample Volume 85.822 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 74 (deg F)

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Start 9.25
End. 11.5

Facility: Superior Plating - Southport

Location: SC-1

Operator: JES

Date: 10/14/98

Run No. 1

Stack No. or ID S-2

Stack Diameter 36 in.

Calibration Factor (Y) 1.052

Pitot Coeff. (Cp) 0.84

Baro. Press (Pbar) 29.83 "Hg

Leak rate before run <0.01 cfm @ 8" Hg

Stack Temp. Start 68 °F

Meter Volume Start 260.455 cu. ft.

Leak rate after run <0.01 cfm @ 8" Hg

Stack Temp. End 73 °F

Meter Volume End 346.01 cu. ft.

SAMPLE PORT 1			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.9	4.9 54	68/63
2	5.3	10.2 12	76/63
3	5.3	15.5 30	78/65
4	5.2	20.7 42	80/64
5	5.1	25.9 54	81/66
6	5.0	30.9 54	81/66
7	5.1	36.0 0	82/68
8	5.2	41.1 6	81/68
9	5.2	46.3 18	87/69
10	5.2	51.5 30	83/69
11	5.3	56.8 40	83/70
12	4.8	61.6 36	84/71

SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.1	65.7 12	80/71
2	4.4	70.1 06	83/71
3	4.6	74.7 42	84/72
4	4.7	79.4 24	84/72
5	4.8	84.2 12	85/72
6	4.9	89.1 06	84/72
7	5.0	94.1 06	83/72
8	5.1	99.2 12	84/72
9	5.2	104.4 24	85/73
10	5.2	109.6 36	85/73
11	5.3	114.9 54	84/73
12	5.1	120.0 0	82/73

Total Sample Volume 85.555 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 76 (deg F)

EPA
[illegible]
10/14/98

START 1156
1359

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-1	Stack Diameter	36 in.
Operator:	ECD	Calibration Factor (Y)	1.052
Date:	10/14/09	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	27.77 "Hg

@6.0" Hg

@6.0" Hg @ 1714

Leak rate before run	<0.001 cfm	Leak rate after run	<0.005 cfm
Stack Temp. Start	77 °F	Stack Temp. End	80 °F
Meter Volume Start	746.137 cu. ft.	Meter Volume End	835.081 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.9	4.9 54	83/71	1	4.1	65.7 42	86/75
2	5.3	10.2 12	84/72	2	4.4	70.1 00	86/75
3	5.3	15.5 30	84/72	3	4.6	74.7 42	86/75
4	5.2	20.7 42	84/72	4	4.7	79.4 24	87/75
5	5.1	25.9 54	84/72	5	4.8	84.2 12	87/76
6	5.0	30.9 54	84/73	6	4.9	89.1 6	86/76
7	5.1	36.0 00	84/73	7	5.0	94.1 6	86/76
8	5.2	41.1 6	83/74	8	5.1	99.2 12	87/76
9	5.2	46.3 18	84/74	9	5.2	104.4 24	86/76
10	5.2	51.5 30	86/74	10	5.2	109.6 00	87/76
11	5.3	56.8 48	86/74	11	5.3	114.9 30	88/77
12	4.8	61.6 36	86/74	12	5.1	120.0 0	84/77

Total Sample Volume 88.944 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 80.2 (deg F)

EPA
10/14/09

START TIME 1427

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-1	Stack Diameter	36 in.
Operator:	ECD	Calibration Factor (Y)	1.052
Date:	10-14-98	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	29.74 "Hg
Leak rate before run	<0.01 @ 7.0 "Hg cfm	Leak rate after run	<0.01 @ 5.0 "Hg cfm
Stack Temp. Start	80 °F	Stack Temp. End	ECD ~~80~~ °F
Meter Volume Start	835.228 cu. ft.	Meter Volume End	923.240 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.9	4.954	83/76	1	4.1	65.742	85/76
2	5.3	10.212	84/76	2	4.4	70.143	86/76
3	5.3	15.530	83/76	3	4.6	74.747	87/77
4	5.2	20.742	83/76	4	4.7	79.424	87/77
5	5.1	25.954	84/75	5	4.8	84.212	86/77
6	5.0	30.954	84/75	6	4.9	89.143	86/77
7	5.1	36.060	83/76	7	5.0	94.143	87/77
8	5.2	41.143	83/75	8	5.1	99.712	85/77
9	5.2	46.318	84/75	9	5.2	104.424	85/77
10	5.2	51.530	83/76	10	5.2	109.636	86/77
11	5.3	56.848	85/75	11	5.3	114.954	87/77
12	4.8	61.636	86/75	12	5.1	120.0	84/77

Total Sample Volume 88.012 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 81 (deg F)

SPH
avd
10/14/98

Start Time 10:10 End Time 12:13

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-2	Stack Diameter	36 in.
Operator:	JES	Calibration Factor (Y)	1.040
Date:	10/13/98	Pitot Coeff. (Cp)	0.84
Run No.	1	Baro. Press (Pbar)	30.06 "Hg

ΔH@ = 1.590

Leak rate before run	<0.01 @10" cfm	Leak rate after run	<0.01 cfm
Stack Temp. Start	70 °F	Stack Temp. End	°F
Meter Volume Start	953.245 cu. ft.	Meter Volume End	1038.59 cu. ft.

SAMPLE PORT 1				SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.5	4.5	62/60	1	5.7	67.4	72/65
2	4.7	9.3	65/60	2	6.0	73.3	73/66
3	4.4	13.6	69/61	3	5.7	79.0	73/66
4	4.3	17.9	70/62	4	5.4	84.5	74/66
5	4.3	22.2	71/62	5	4.9	89.4	74/66
6	4.7	26.9	71/63	6	4.7	94.0	73/66
7	5.1	32.0	72/63	7	4.7	98.7	73/66
8	6.0	38.0	72/64	8	4.7	103.4	74/66
9	5.9	44.0	72/65	9	4.4	107.8	74/66
10	5.9	49.9	72/65	10	4.2	112.1	74/67
11	5.8	55.7	72/65	11	4.1	116.2	74/67
12	5.9	61.6	72/65	12	3.8	120.0	73/67

Total Sample Volume 85.345 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 68 (deg F)

10/13/98

Start Time: 13:00 End Time: 15:02

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-2	Stack Diameter	36 in.
Operator:	MJP	Calibration Factor (Y)	1.040
Date:	10/13/98	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	30.03 "Hg

Leak rate before run	<0.01 @10"Hg cfm	Leak rate after run	<0.005 ΔH@1.59 @6.0"Hg cfm
Stack Temp. Start	70 °F	Stack Temp. End	71 °F
Meter Volume Start	38.73 cu. ft.	Meter Volume End	124.2 cu. ft.

SAMPLE PORT 1				SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.5	4.5	66/65	1	5.7	67.4	72/67
2	4.7	9.3	68/66	2	6.0	73.3	73/67
3	4.4	13.6	70/66	3	5.7	79.0	74/67
4	4.3	17.9	71/66	4	5.4	84.5	74/68
5	4.3	22.2	72/66	5	4.9	89.4	74/68
6	4.7	26.9	73/66	6	4.7	94.0	74/68
7	5.1	32.0	73/66	7	4.7	98.7	74/68
8	6.0	38.0	73/66	8	4.7	103.4	74/68
9	5.9	44.0	73/66	9	4.4	107.8	74/68
10	5.9	49.9	73/66	10	4.2	112.1	74/68
11	5.8	55.7	73/67	11	4.1	116.2	74/68
12	5.9	61.6	72/67	12	3.8	120.0	74/68

Total Sample Volume 85.47 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 70° (deg F)

JPA
10/13/98

Start Time: 15:31 END TIME: 17:35

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Start 15:3

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-2	Stack Diameter	36 in.
Operator:	ESM	Calibration Factor (Y)	1.040
Date:	10/13/98	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	30.00 "Hg
			ΔH@1.590
Leak rate before run	<0.005 @8.0" Hg cfm	Leak rate after run	<0.0075 @ 7" Hg cfm
Stack Temp. Start	71 °F	Stack Temp. End	68 °F
Meter Volume Start	124.34 cu. ft.	Meter Volume End	211.36 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.5	4.5	71/67	1	5.7	67.4	73/68
2	4.7	9.3	72/67	2	6.0	73.3	73/68
3	4.4	13.6	73/68	3	5.7	79.0	73/68
4	4.3	17.9	73/68	4	5.4	84.5	73/67
5	4.3	22.2	74/68	5	4.9	89.4	73/67
6	4.7	26.9	74/68	6	4.7	94.0	73/67
7	5.1	32.0	74/68	7	4.7	98.7	73/67
8	6.0	38.0	74/68	8	4.7	103.4	73/67
9	5.9	44.0	74/68	9	4.4	107.8	73/67
10	5.9	49.9	74/68	10	4.2	112.1	72/67
11	5.8	55.7	74/68	11	4.1	116.2	72/66
12	5.9	61.6	74/68	12	3.8	120.0	73/67

Total Sample Volume 87.02 cu. ft. (End Volume - Start Volume)

Average Meter Temp. 70 (deg F)

ESM 10/13/98

Start Time 10:12 12:14: END TIME

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-2	Stack Diameter	36 in.
Operator:	MJF	Calibration Factor (Y)	1.052
Date:	10/13/98	Pitot Coeff. (Cp)	0.84
Run No.	1	Baro. Press (Pbar)	30.06 "Hg

Leak rate before run	<0.01 @ 10"Hg cfm	Leak rate after run	ΔH@ 1.714 <0.01 cfm
Stack Temp. Start	70 °F	Stack Temp. End	68 °F
Meter Volume Start	397.46 cu. ft.	Meter Volume End	484.870 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	3.6	3.6 36"	66/62	1	4.4	64.4 24"	81/69
2	3.8	7.4 24"	77/63	2	4.7	69.1 6"	81/69
3	4.0	11.4 24"	79/64	3	5.1	74.2 12"	81/69
4	4.1	15.6 36"	79/65	4	5.3	79.5 30"	81/70
5	4.3	19.9 54"	80/65	5	5.2	84.7 42"	81/70
6	4.4	24.3 18"	80/66	6	5.1	89.8 48"	81/70
7	4.6	28.9 54"	80/67	7	4.7	94.5 30"	81/70
8	5.5	34.4 24"	81/68	8	4.8	99.4 24"	81/71
9	5.9	40.3 18"	81/68	9	5.1	104.5 30"	81/71
10	6.4	46.8 48"	81/68	10	5.2	109.7 42"	82/71
11	6.6	53.4 24"	81/69	11	5.2	114.9 54"	81/71
12	6.6	60.0 00"	81/69	12	5.1	120.0 00"	81/71

Total Sample Volume _____ cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 74 (deg F)

GPA
G/H
10/13/98

Start Time: 13:00 END TIME 15:01:30

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-2	Stack Diameter	36 in.
Operator:	JS/MJF	Calibration Factor (Y)	1.052
Date:	10/13/98	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	30.03 "Hg

Leak rate before run <0.01 cfm @7" Hg. ΔH@ 1.714 @7.0" Hg Leak rate after run <0.01 cfm

Stack Temp. Start 70 °F Stack Temp. End 71 °F

Meter Volume Start ~~485.85~~ 485.925 cu. ft. Meter Volume End 572.829 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	3.6	3.6 36	71/68	1	4.4	64.4 24	79/71
2	3.8	7.4 24	78/68	2	4.7	69.1 6	80/71
3	4.0	11.4 24	80/68	3	5.1	74.2 12	81/70
4	4.1	15.6 36	80/69	4	5.3	79.5 30	81/71
5	4.3	19.9 54	80/69	5	5.2	84.7 42	81/71
6	4.4	24.3 18	80/69	6	5.1	89.8 48	81/71
7	4.6	28.9 54	81/69	7	4.7	94.5 30	82/71
8	5.5	34.4 24	81/70	8	4.8	99.4 24	81/71
9	5.9	40.3 18	81/70	9	5.1	104.5 30	81/71
10	6.4	46.8 48	80/70	10	5.2	109.7 42	81/71
11	6.6	53.4 24	81/71	11	5.2	114.9 54	81/71
12	6.6	60.0 00	78/71	12	5.1	120.0 _	81/71

Total Sample Volume 86.904 cu. ft. Average Meter Temp. 76 (deg F)
(End Volume - Start Volume)

EPA
10/13/98

START TIME: 15:32 END TIME 17:35

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-2	Stack Diameter	36 in.
Operator:	ECD	Calibration Factor (Y)	1.052
Date:	10/13/98	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	30.00 "Hg

ΔH@ 1.714

Leak rate before run	<0.005 cfm @ 8.0" Hg	Leak rate after run	<0.005 cfm @ 5.0" Hg
Stack Temp. Start	71 °F	Stack Temp. End	68 °F
Meter Volume Start	573.089 cu. ft.	Meter Volume End	659.996 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	3.6	3.6 36	79/69	1	4.4	64.4 24	81/70
2	3.8	7.4 24	80/69	2	4.7	69.1 6	81/71
3	4.0	11.4 24	81/69	3	5.1	74.2 12	81/71
4	4.1	15.6 36	82/70	4	5.3	79.5 30	79/70
5	4.3	19.9 54	81/70	5	5.2	84.7 42	80/70
6	4.4	24.3 18	81/71	6	5.1	89.8 48	79/70
7	4.6	28.9 54	81/71	7	4.7	94.5 30	80/69
8	5.5	34.4 24	81/71	8	4.8	99.4 24	79/70
9	5.9	40.3 18	80/70	9	5.1	104.5 30	79/70
10	6.4	46.8 48	80/70	10	5.2	109.7 42	80/69
11	6.6	53.4 24	80/70	11	5.2	114.9 54	80/69
12	6.6	60.0 00	81/71	12	5.1	120.0	80/69

Total Sample Volume 86.907 cu. ft.
(End Volume - Start Volume)

Average Meter Temp. 75 (deg F)

EPA
CWH
10/13/98

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

START 1539
END 1741

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-3	Stack Diameter	36 in.
Operator:		Calibration Factor (Y)	1.040
Date:	10/15/98	Pitot Coeff. (Cp)	0.84
Run No.	1	Baro. Press (Pbar)	30.06 "Hg

ΔH@ 1.590

Leak rate before run	<0.01 cfm 8.0"Hg	Leak rate after run	<0.00 cfm 5.0"Hg
Stack Temp. Start	82 °F	Stack Temp. End	80 °F
Meter Volume Start	731.701 cu. ft.	Meter Volume End	817.810 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.7	4.7	67/66	1	5.9	67.1	66/64
2	5.0	9.7	67/65	2	6.2	73.4	66/64
3	5.0	14.7	67/65	3	6.0	79.4	66/63
4	4.9	19.6	68/65	4	5.6	84.9	65/63
5	4.6	24.2	69/66	5	5.0	89.9	65/63
6	4.4	28.6	69/66	6	4.7	94.6	65/63
7	4.9	33.5	68/65	7	4.5	99.1	65/62
8	5.2	38.7	68/65	8	4.4	103.6	65/62
9	5.7	44.4	68/65	9	4.3	107.9	65/62
10	5.6	49.9	67/65	10	4.2	112.1	65/62
11	5.7	55.7	68/65	11	4.1	116.2	65/61
12	5.6	61.2	67/65	12	3.8	120.0	65/61

Total Sample Volume _____ cu. ft. (End Volume - Start Volume)

Average Meter Temp. _____ (deg F)

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

START 1049
END 125

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-3	Stack Diameter	36 in.
Operator:	ECO	Calibration Factor (Y)	1.040
Date:	10/15/98	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	30.63 "Hg

8.0 "Hg ΔH@ 1.590 6.0 "Hg

Leak rate before run	<0.005 cfm	Leak rate after run	<0.005 cfm
Stack Temp. Start	85 °F	Stack Temp. End	89 °F
Meter Volume Start	557.976 cu. ft.	Meter Volume End	644.464 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.7	4.7	66/63	1	5.9	67.1	68/65
2	5.0	9.7	67/64	2	6.2	73.4	67/65
3	5.0	14.7	66/63	3	6.0	79.4	67/65
4	4.9	19.6	68/64	4	5.6	84.9	67/65
5	4.6	24.2	68/64	5	5.0	89.9	68/65
6	4.4	28.6	68/65	6	4.7	94.6	68/65
7	4.9	33.5	68/65	7	4.5	99.1	68/65
8	5.2	38.7	68/65	8	4.4	103.6	68/65
9	5.7	44.4	69/65	9	4.3	107.9	68/65
10	5.6	49.9	69/65	10	4.2	112.1	69/65
11	5.7	55.7	68/65	11	4.1	116.2	68/65
12	5.6	61.2	68/65	12	3.8	120.0	68/65

Total Sample Volume _____ cu. ft. Average Meter Temp. _____ (deg F)
(End Volume - Start Volume)

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

START 1312
1522

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-3	Stack Diameter	36 in.
Operator:	ECD	Calibration Factor (Y)	~~1.0 1.590~~ 1.040
Date:	10/15/98	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	30.03 "Hg
Leak rate before run	<0.005 @ 8.0" Hg cfm	ΔH@	1.590
Stack Temp. Start	87 °F	Leak rate after run	<0.005 @ 6.0" Hg cfm
Meter Volume Start	644.700 cu. ft.	Stack Temp. End	82 °F
		Meter Volume End	731.451 cu. ft.

SAMPLE PORT 1				SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	4.7	4.7	66/65	1	5.9	67.1	71/68
2	5.0	9.7	68/65	2	6.2	73.4	71/68
3	5.0	14.7	68/65	3	6.0	79.4	70/68
4	4.9	19.6	69/65	4	5.6	84.9	69/67
5	4.6	24.2	69/65	5	5.0	89.9	69/67
6	4.4	28.6	68/65	6	4.7	94.6	69/66
7	4.9	33.5	68/64	7	4.5	99.1	69/67
8	5.2	38.7	69/65	8	4.4	103.6	70/67
9	5.7	44.4	69/66	9	4.3	107.9	69/66
10	5.6	49.9	69/66	10	4.2	112.1	69/66
11	5.7	55.7	70/67	11	4.1	116.2	69/66
12	5.6	61.2	71/68	12	3.8	120.0	68/66

Total Sample Volume _____ cu. ft. (End Volume - Start Volume)

Average Meter Temp. _____ (deg F)

START 0825 END 1027

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-3	Stack Diameter	36 in.
Operator:	ECD	Calibration Factor (Y)	1.052
Date:	10/15/98	Pitot Coeff. (Cp)	0.84
Run No.	1	Baro. Press (Pbar)	30.00 "Hg
	@9.0" Hg	ΔH@ 1.714	@6.0" Hg
Leak rate before run	<0.005 cfm	Leak rate after run	<0.005 cfm
Stack Temp. Start	76 °F	Stack Temp. End	86 °F
Meter Volume Start	923.399 cu. ft.	Meter Volume End	1008.352 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2			
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	3.7	3.7 42	63/52	1	5.4	63.8 48	66/60
2	3.9	7.5 30	66/53	2	5.6	69.3 18	67/60
3	4.1	11.6 36	68/54	3	5.6	75.0	68/61
4	4.2	15.8 48	69/55	4	5.6	80.6 36	66/61
5	4.4	20.3 18	69/56	5	5.4	86.0	68/61
6	4.5	24.7 42	68/57	6	5.2	91.2 12	67/61
7	4.6	29.3 18	68/57	7	4.8	95.9 54	68/61
8	5.2	34.5 30	68/58	8	4.8	100.7 42	69/61
9	5.6	40.1 6	68/58	9	4.9	105.7 42	68/61
10	6.1	46.2 12	68/60	10	4.9	110.5 30	70/62
11	6.3	52.6 36	68/60	11	4.9	115.4 24	72/63
12	5.8	58.4 24	68/60	12	4.6	120.0	72/63

Total Sample Volume _____ cu. ft. (End Volume - Start Volume)

Average Meter Temp. _____ (deg F)

START 1049
END 125

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-3	Stack Diameter	36 in.
Operator:	ECD	Calibration Factor (Y)	1.052
Date:	10/15/98	Pitot Coeff. (Cp)	0.84
Run No.	2	Baro. Press (Pbar)	30.03 "Hg

@80"Hg ΔH@ 1.714 @6.0"Hg

Leak rate before run	<0.005 cfm	Leak rate after run	<0.005 cfm
Stack Temp. Start	85 °F	Stack Temp. End	89 °F
Meter Volume Start	008.452 cu. ft.	Meter Volume End	~~644.476~~ 091.055 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	3.7	3.742	72/65	1	5.4	63.848	72/66
2	3.9	7.730	72/65	2	5.6	69.318	73/67
3	4.1	11.836	72/65	3	5.6	75.0	72/67
4	4.2	15.848	71/65	4	5.6	80.636	73/67
5	4.4	20.318	73/66	5	5.4	86.0	74/67
6	4.5	24.742	72/66	6	5.2	91.712	74/68
7	4.6	29.318	72/66	7	4.8	95.854	73/[illegible]
8	5.2	34.530	72/66	8	4.8	100.742	72/68
9	5.6	40.136	72/66	9	4.9	105.742	74/68
10	6.1	46.212	72/67	10	4.9	110.530	74/68
11	6.3	52.636	72/66	11	4.9	115.424	72/68
12	5.8	58.424	71/66	12	4.6	120.0	72/68

Total Sample Volume _____ cu. ft.
(End Volume - Start Volume)

Average Meter Temp. _____ (deg F)

START 1430

Chromium Field Data Sheet

USEPA Reference Method 306A

(2 Hour Test)

Facility:	Superior Plating - Southport	Stack No. or ID	S-2
Location:	SC-3	Stack Diameter	36 in.
Operator:		Calibration Factor (Y)	1.052
Date:	10/15/98	Pitot Coeff. (Cp)	0.84
Run No.	3	Baro. Press (Pbar)	30.03 "Hg

ΔHe 1.714

Leak rate before run	<0.005 cfm 9.0"Hg	Leak rate after run	<0.005 cfm 8.0"Hg
Stack Temp. Start	87 °F	Stack Temp. End	92 °F
Meter Volume Start	132.021 cu. ft.	Meter Volume End	219.135 cu. ft.

	SAMPLE PORT 1				SAMPLE PORTS 2		
Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)	Point No.	Time (minutes)	Total Time (minutes)	Meter Temp. (deg F)
1	3.7	3.7 42	74/69	1	5.4	63.8 48	71/68
2	3.9	7.5 30	74/70	2	5.6	69.3 18	70/68
3	4.1	11.6 36	72/69	3	5.6	75.0	70/67
4	4.2	15.8 48	72/69	4	5.6	80.6 36	69/67
5	4.4	20.3 18	72/69	5	5.4	86.0	71/67
6	4.5	24.7 42	71/69	6	5.2	91.2 12	71/67
7	4.6	29.3 18	72/69	7	4.8	95.9 54	71/68
8	5.2	34.5 30	72/69	8	4.8	100.7 42	70/67
9	5.6	40.1 6	72/69	9	4.9	105.7 42	70/67
10	6.1	46.2 12	72/69	10	4.9	110.5 30	70/67
11	6.3	52.6 18	71/69	11	4.9	115.4 24	70/67
12	5.8	58.4 24	71/68	12	4.6	120.0	69/66

Total Sample Volume _____ cu. ft. (End Volume - Start Volume)

Average Meter Temp. _____ (deg F)

Chromium Field Data Sheet

USEPA Reference Method 306A
Circular Duct

Facility:	Superior Plating - Southport	Stack No. or ID	S-1 (Stack 1)
Location:	SC-1	Stack Diameter	36 in.
Operator:	JES, EJM	Pitot Coeff. (Cp)	0.84
Date:	10 / 14 / 98	Baro. Press (Pbar)	29.53 "Hg
Run No.	1		

68° F

Static -0.21

Port #	Point No.	ΔP	Cyclonics	Port #	Point No.	ΔP	Cyclonics
1	1	0.65	12°	2	1	0.61	4°
	2	0.65	12°		2	0.67	4°
	3	0.64	10°		3	0.75	2°
	4	0.65	5°		4	0.75	0°
	5	0.63	7°		5	0.71	1°
	6	0.61	0°		6	0.63	2°
	7	0.63	4°		7	0.61	3°
	8	0.63	0°		8	0.65	9°
	9	0.63	2°		9	0.70	5°
	10	0.63	2°		10	0.71	2°
	11	0.61	7°		11	0.69	10°
	12	0.55	0		12	0.63	4°

AVG. cyclonics : 4.5°
AVG $\sqrt{\Delta P}$ = 0.806

Chromium Field Data Sheet

USEPA Reference Method 306A

Circular Duct

Facility:	Superior Plating - Southport	Stack No. or ID	S-2 (Stack 2)
Location:	SC-1	Stack Diameter	36 in.
Operator:	JES, EJM	Pitot Coeff. (Cp)	0.84
Date:	10 / 14 / 98	Baro. Press (Pbar)	29.83 "Hg
Run No.	1		

Static = -0.21 .8°F

Port #	Point No.	ΔP	Cyclonics	Port #	Point No.	ΔP	Cyclonics
1	1	0.67	0°	2	1	0.46	0°
	2	0.76	2°		2	0.54	3°
	3	0.78	1°		3	0.59	5°
	4	0.75	0°		4	0.60	12°
	5	0.72	2°		5	0.63	12°
	6	0.70	11°		6	0.66	10°
	7	0.71	13°		7	0.70	4°
	8	0.73	12°		8	0.71	5°
	9	0.73	9°		9	0.74	8°
	10	0.75	12°		10	0.75	5°
	11	0.76	10°		11	0.77	4°
	12	0.63	16°		12	0.71	15°

AVG cyclonics = 7.1°

AVG $\sqrt{\Delta P}$ = 0.829

Chromium Field Data Sheet

USEPA Reference Method 306A
Circular Duct

Facility:	Superior Plating - Southport	Stack No. or ID	S-1 (Stack 1)
Location:	SC-2	Stack Diameter	36 in.
Operator:	JES, EJM	Pitot Coeff. (Cp)	0.84
Date:	10/13/98	Baro. Press (Pbar)	30.03 "Hg
Run No.	1		

Temp: ~~63~~ 72 °F

Static -0.14

Port #	Point No.	ΔP	Cyclonics	Port #	Point No.	ΔP	Cyclonics
1	1	0.40	17°	2	1	0.64	3°
	2	0.43	4°		2	0.69	3°
	3	0.37	2°		3	0.63	2°
	4	0.36	0°		4	0.57	0°
	5	0.36	3°		5	0.47	2°
	6	0.43	2°		6	0.42	2°
	7	0.50	11°		7	0.43	15°
	8	0.70	8°		8	0.42	4°
	9	0.68	14°		9	0.38	3°
	10	0.68	9°		10	0.35	9°
	11	0.66	14°		11	0.33	12°
	12	0.68	13°		12	0.28	15°

Avg Cyclonic Flow: 7.0°

Avg $\sqrt{\Delta P}$ = 0.696

EPA QAL
10/13/98

Chromium Field Data Sheet

USEPA Reference Method 306A
Circular Duct

Facility:	Superior Plating - Southport	Stack No. or ID	S-2 (Stack 2)
Location:	SC-2	Stack Diameter	36 in.
Operator:	JES, EJM	Pitot Coeff. (Cp)	0.84
Date:	10/13/98	Baro. Press (Pbar)	30.09 "Hg
Run No.	1		

Static − 0.14

TEMP: ~~98~~ (72)

Port #	Point No.	ΔP	Cyclonics	Port #	Point No.	ΔP	Cyclonics
1	1	0.25	2°	2	1	0.38	7°
	2	0.28	6°		2	0.42	9°
	3	0.31	7°		3	0.51	3°
	4	0.33	2°		4	0.54	7°
	5	0.36	7°		5	0.52	11°
	6	0.37	2°		6	0.50	7°
	7	0.41	6°		7	0.42	11°
	8	0.59	9°		8	0.45	12°
	9	0.67	5°		9	0.50	4°
	10	0.79	11°		10	0.53	9°
	11	0.85	9°		11	0.52	7°
	12	0.83	7°		12	0.50	5°

Avg cyclonics: 6.9°

Avg $\sqrt{\Delta P}$ = 0.693

EJM
10/13/98

Chromium Field Data Sheet

USEPA Reference Method 306A
Circular Duct

Facility:	Superior Plating - Southport	Stack No. or ID	S-1
Location:	SC-3	Stack Diameter	36 in.
Operator:	JES, EJM	Pitot Coeff. (Cp)	0.84
Date:	10/15/99	Baro. Press (Pbar)	29.97 "Hg
Run No.	1		

Static pressure: -0.10
Stack Temp: 76°F

Port #	Point No.	ΔP	Cyclonics	Port #	Point No.	ΔP	Cyclonics
1	1	0.45	3°	2	1	0.71	8°
	2	0.50	5°		2	0.79	4°
	3	0.51	7°		3	0.74	9°
	4	0.49	4°		4	0.63	1°
	5	0.44	9°		5	0.50	2°
	6	0.40	5°		6	0.45	0°
	7	0.48	10°		7	0.42	12°
	8	0.55	4°		8	0.40	6°
	9	0.66	3°		9	0.38	4°
	10	0.63	8°		10	0.36	13°
	11	0.67	3°		11	0.34	6°
	12	0.63	9°		12	0.30	10°

Avg cyclonic: 6.0°
Avg $\sqrt{\Delta P}$ = 0.714

Chromium Field Data Sheet

USEPA Reference Method 306A
Circular Duct

Facility:	Superior Plating - Southport
Location:	SC-3
Operator:	JES, EJM
Date:	10/15/98
Run No.	1

Stack No. or ID	S-2	
Stack Diameter	36 in.	
Pitot Coeff. (Cp)	0.84	
Baro. Press (Pbar)	29.97	"Hg

Static pressure: -0.10
Stack Temp: 76°F

Port #	Point No.	ΔP	Cyclonics	Port #	Point No.	ΔP	Cyclonics
1	1	0.26	6°	2	1	0.57	13°
	2	0.29	3°		2	0.60	3°
	3	0.32	4°		3	0.61	9°
	4	0.35	0°		4	0.61	7°
	5	0.38	4°		5	0.57	6°
	6	0.39	4°		6	0.52	9°
	7	0.41	5°		7	0.44	5°
	8	0.52	9°		8	0.45	4°
	9	0.61	10°		9	0.47	0°
	10	0.72	7°		10	0.46	6°
	11	0.78	6°		11	0.46	5°
	12	0.65	9°		12	0.41	2°

avg. cyclonic = 5.6°
avg. $\sqrt{\Delta P}$ = 0.696

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

Date: 8-27-98

Ambient Temperature: 70°F

Technician: Erik Mallory

Thermocouple: Small Probe

Barometric Preassure: 30.1

Reference:
Mercury-in-glass ASTM

Reference Point Number	Temperature Source	Reference Thermometer Temperature	Thermocouple Potentiometer Temperature	Temperature Difference Percent
0	Ice Bath	36	35	0.21%
		36	36	0.00%
		36	36	0.00%
100°C	Boiling Water	97	98	-0.19%
		98	99	-0.19%
		99	100	-0.19%
230°C	Boiling Oil	406	403	0.36%
		398	396	0.24%
		392	387	0.61%

The absolute values of the test themometers and the thermocouple must agree within ±1.5%

Method 5 Module Calibration Worksheet
Pre-Test Calibration

Module #	1	Run Number				
Date	9/24/98	1	2	3	4	5
Calibration Orifice #		1	2	3	4	5
Orifice Coefficient (K')		0.446	0.514	0.665	0.938	0.999
Final Vm	(ft^3)	912.31	922.41	932.61	943.10	953.20
Initial Vm	(ft^3)	902.30	912.40	922.60	933.00	943.20
Difference Vm	(ft^3)	10.01	10.01	10.01	10.1	10
Inlet Temp.						
Initial	(^{0}F)	73	74	74	77	78
Final	(^{0}F)	74	74	77	79	80
Inlet Average	(^{0}F)	74	74	76	78	79
Outlet Temp.						
Initial	(^{0}F)	72	72	72	72	73
Final	(^{0}F)	72	72	72	73	74
Outlet Average	(^{0}F)	72	72	72	73	77
Average Meter Temp.	(^{0}F)	73	73	74	75	78
Time	(0.00 min)	17.69	15.34	12.10	8.60	8.00
ΔH	("WC)	0.96	1.30	2.10	4.20	4.80
Barometric Pressure	("Hg)	30.20	30.20	30.20	30.20	30.20
Ambient Temp.	(^{0}F)	69	69	69	71.8	70.8
Pump Vacuum	("Hg)	20	20	15	15	15
Vm(std)	cu. ft.	10.033	10.037	10.042	10.155	10.018
Vcr(std)	cu. ft.	10.360	10.353	10.565	10.564	10.476
Cal Factor (Y)	-	1.033	1.032	1.052	1.040	1.046
ΔH@		1.582	1.615	1.563	1.591	1.596

Averages

Cal Factor (Y)	**1.040**
ΔH@	**1.590**

Pre-Test Calibration: Perform one >10 cf run with each orifice.

Post-Test Calibration: Perform three >10 cf runs with orifice corresponding to average Delta H from test program.

Each Y must be within ±2% of average.

Individual ΔH@'s must be ±0.20 from average.

Calibrations are done according to Title 40 CFR Part 60 Appendix A, Reference Method 5 Section 7.

Method 5 Module Calibration Worksheet
Post-Test Calibration

Module #	1	Run Number		
Date	10/29/98	1	2	3
Calibration Orifice #	-	2	2	2
Orifice Coefficient (K')	-	0.514	0.514	0.514
Final Vm	(ft^3)	836.42	846.43	856.44
Initial Vm	(ft^3)	826.41	836.42	846.43
Difference Vm	(ft^3)	10.01	10.01	10.01
Inlet Temp.				
Initial	(^{0}F)	71	72	73
Final	(^{0}F)	72	74	74
Inlet Average	(^{0}F)	72	73	74
Outlet Temp.				
Initial	(^{0}F)	71	71	72
Final	(^{0}F)	71	72	72
Outlet Average	(^{0}F)	71	72	72
Average Meter Temp.	(^{0}F)	71	72	73
Time	(0.00 min)	15.50	15.50	15.52
ΔH	("WC)	1.30	1.30	1.30
Barometric Pressure	("Hg)	29.82	29.82	29.82
Ambient Temp.	(^{0}F)	72	72	72
Pump Vacuum	("Hg)	20	20	20
Vm(std)	cu. ft.	9.943	9.925	9.915
Vcr(std)	cu. ft.	10.300	10.300	10.314
Cal Factor (Y)	-	1.036	1.038	1.040
ΔH@		1.651	1.648	1.646

Averages

Cal Factor (Y)	**1.038**
ΔH@	**1.648**

Pre-Test Calibration: Perform one >10 cf run with each orifice.

Post-Test Calibration: Perform three >10 cf runs with orifice corresponding to average Delta H from test program.

Each Y must be within ±2% of average.

Individual ΔH@'s must be ±0.20 from average.

Calibrations are done according Title 40 CFR 60 Appendix A, Reference Method 5 Section 7.

Method 5 Module Calibration Worksheet
Pre-Test Calibration

Module #	2	Run Number				
Date	10/8/98	1	2	3	4	5
Calibration Orifice #		1	2	3	4	5
Orifice Coefficient (K')		0.446	0.514	0.665	0.938	0.999
Final Vm	(ft^3)	348.80	358.94	369.69	381.47	392.335
Initial Vm	(ft^3)	338.44	348.91	359.46	370.40	381.83
Difference Vm	(ft^3)	10.365	10.032	10.22	11.07	10.51
Inlet Temp.						
Initial	(°F)	72	74	75	82	81
Final	(°F)	75	75	84	83	85
Inlet Average	(°F)	74	75	80	83	83
Outlet Temp.						
Initial	(°F)	72	72	72	73	74
Final	(°F)	72	72	73	75	75
Outlet Average	(°F)	72	72	73	74	75
Average Meter Temp.	(°F)	73	73	76	78	79
Time	(0.00 min)	18.50	15.50	12.50	9.50	8.50
ΔH	("WC)	1.00	1.35	2.20	4.50	5.00
Barometric Pressure	("Hg)	29.33	29.33	29.33	29.33	29.33
Ambient Temp.	(°F)	70	70	70	70	70
Pump Vacuum	("Hg)	20	20	15	15	15
Vm(std)	cu. ft.	10.091	9.766	9.922	10.761	10.220
Vcr(std)	cu. ft.	10.512	10.150	10.590	11.353	10.818
Cal Factor (Y)	-	1.042	1.039	1.067	1.055	1.059
ΔH@		1.701	1.730	1.683	1.743	1.710

Averages

Cal Factor (Y)	**1.052**
ΔH@	**1.714**

Pre-Test Calibration: Perform one >10 cf run with each orifice.

Post-Test Calibration: Perform three >10 cf runs with orifice corresponding to average Delta H from test program.

Each Y must be within ±2% of average.

Individual ΔH@'s must be ±0.20 from average.

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

CHAIN OF CUSTODY

AIR TOX ENVIRONMENTAL COMPANY, INC.
165 River Road
Willington, CT 06279

PROJECT DESCRIPTION: Superior Plating - Southport
PROJECT NO.: Compliance Test
PROJECT NAME: Superior

FIELD SAMPLE NUMBER	DATE	TIME	COMPOSITE OR GRAB	ANALYSIS REQUIRED	SAMPLING TRAIN	SAMPLE DESCRIPTION	SPECIAL NOTES	SEND TO:
Test 1(SC-1, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-1, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-1, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 1(SC-1, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-1, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-1, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Blank		n/a	Grab	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
	Please Fax Results to Air Tox Environmental @ 860-487-5607							

Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Erik J Malloy	10/19/98	M Ha Chance	10/19/98	4:00 pm
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

CHAIN OF CUSTODY

AIR TOX ENVIRONMENTAL COMPANY, INC.
165 River Road
Willington, CT 06279

Mallory, E.

PROJECT DESCRIPTION: Superior Plating - Southport
PROJECT NO.: Compliance Test
PROJECT NAME: Superior

FIELD SAMPLE NUMBER	DATE	TIME	COMPOSITE OR GRAB	ANALYSIS REQUIRED	SAMPLING TRAIN	SAMPLE DESCRIPTION	SPECIAL NOTES	SEND TO:
Test 1(SC-2, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-2, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-2, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 1(SC-2, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-2, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-2, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Blank		n/a	Grab	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
	Please Fax Results to Air Tox Environmental @ 860-487-5607							

Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Erik T. Mallory	10/19/98	M Ha Chance	10/19/98	4:00pm
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	

Environmental Company
AIR TOX
Environmental Solutions for Today's Industries

CHAIN OF CUSTODY

AIR TOX ENVIRONMENTAL COMPANY, INC.

165 River Road

Willington, CT 06279

PROJECT DESCRIPTION Superior Plating - Southport

PROJECT NO. Compliance Test

PROJECT NAME Superior

FIELD SAMPLE NUMBER	DATE	TIME	COMPOSITE OR GRAB	ANALYSIS REQUIRED	SAMPLING TRAIN	SAMPLE DESCRIPTION	SPECIAL NOTES	SEND TO:
Test 1(SC-3, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-3, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-3, S1)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 1(SC-3, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 2(SC-3, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Test 3(SC-3, S2)			Composite	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
Blank		n/a	Grab	Total Chromium by AA - with digestion	306A	0.1 N NaOH	Please digest sample and perform analysis in accordance with 306A	EHL-Cromwell, CT
	Please Fax Results to Air Tox Environmental @ 860-487-5607							

Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Erik J Malby	10/19/98	M MacChance	10/19/98	4:00 p.m
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	
Relinquished by: (Signature)	DATE/TIME	Received by:(Signature)	DATE/TIME	

Attachment B.1
Test Results for November 1998 Retest

Superior Test - 11/9/97

Calculated Stack Concentration

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (µg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

SC-1 C_{Cr}= **0.006 mg/dscm**

M_{Cr}= 14.7
T_m= 80
Y_m= 0.98
V_m= 96
P_{bar}= 30.18

SC-2 C_{Cr}= **0.005 mg/dscm**

M_{Cr}= 14.7
T_m= 66
Y_m= 1.033
V_m= 95
P_{bar}= 30.18

SC-3 C_{Cr}= **0.004 mg/dscm**

M_{Cr}= 11.9
T_m= 72
Y_m= 0.98
V_m= 95.25
P_{bar}= 30.18

Attachment B.2
Baron Consulting Analysis of Retest Samples

BARON CONSULTING CO.

HARRY AGAHIGIAN, Ph.D., DIRECTOR

analytical services

P.O. BOX 3337, MILFORD, CT 06460

November 9, 1998

Mr. Richard Durazzo
Superior Plating Co.
Lacey Place
Southport, CT 06490

RE: Analysis of three water samples received 11/9/98
Project: Stack Test 11/9/98
PO# to follow
BC# 121436

Sample	Total Cr (ug) in 100 ml sample	Total Cr (ug) in 350 ml sample
Stack 1-1	**4.2**	**14.7**
Stack 2-1	**4.2**	**14.7**
Stack 3-1	**3.4**	**11.9**
Analyst: AP		
Date Analyzed: 11/9/98		

Sample was collected and analyzed per 306-A Protocol.

Please review the data and contact us if you have any questions or wish more information.

RECEIVED NOV 12 1998

Anthony Pisani
Chemist

AP/dc

Reviewed by:
Barbara Obert

This report is submitted with the understanding that it is not to be reproduced for advertising or other purposes over our signature without express written permission from us. We do not accept any liability concerning the use of these results.

NOT RESPONSIBLE FOR SAMPLES LEFT OVER 30 DAYS AFTER RECEIPT OF REPORT.

Connecticut Public Health Laboratory No. 0440 EPA Number CT015

AIHA and AIHA ELLAP Accredited Laboratory No. 6951

LABORATORY LOCATED AT 273 PEPE'S FARM ROAD, MILFORD, CT 06460 (203) 874-5678 FAX: (203) 874-7863