

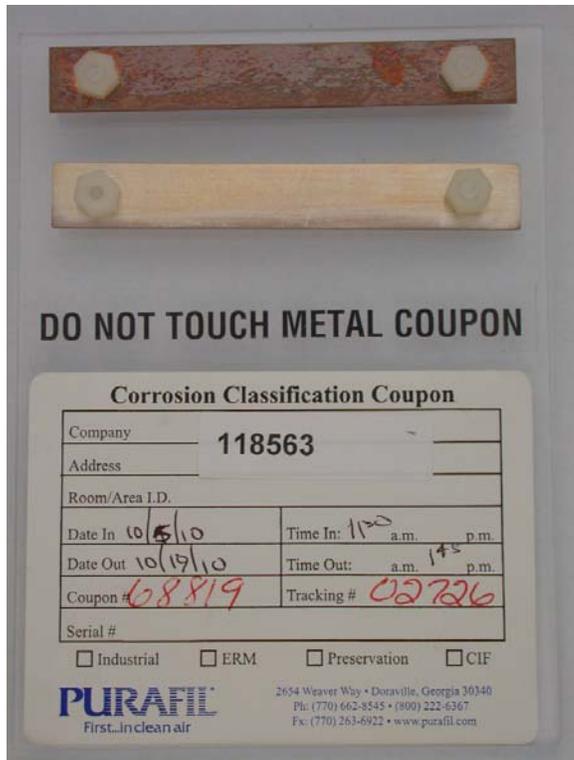
# PURAFIL ENVIRONMENTAL CORROSION REPORT

12-Nov-2010

Company: 118563

Sales Order #: C002726  
CCC Panel #: P68819  
Date In: 05-Oct-2010  
Date Out: 19-Oct-2010  
Days In Service: 14

Room/Area ID:  
Reference #:



<b>CCC Panel # P68819</b>
<b>ISA Class GX</b> Severe
<b>Copper Corrosion</b> 5163 Å/30 Days
<b>Silver Corrosion</b> 535 Å/30 Days

(see next page for complete analysis)

### Summary for PURAFIL CCC # P68819

The electrolytic reduction analysis on Corrosion Classification Coupon #P68819 shows the presence of extremely high concentrations of contaminants and the possibility of high/variable humidity in the environment tested. The hydrogen sulfide level is expected to be in excess of 50 ppb, sulfur dioxide greater than 300 ppb, and chlorine greater than 10 ppb. The presence of moisture and small amounts of inorganic chlorine compounds greatly accelerates sulfide corrosion. Electronic/electrical equipment is not expected to survive in this environment due to corrosive attack.

Your local representative for additional information and assistance is:  
Environmental Health and Eng  
117 Fourth Avenue, Needham MA 02494, USA  
tminegishi@eheinc.com

Purafil, Inc. / 2654 Weaver Way, Doraville GA 30340 USA / (770) 662-8545 / (770) 263-6922  
Email: purafil@purafil.com / Internet: http://www.purafil.com

**PURAFIL CCC # P68819 Analysis Results**

<b>Corrosion Film Composition</b>				<b>Gold Coupon - Magnified 20x</b>
	Projections			
	<u>30 Days</u>	<u>1 Year</u>	<u>5 Year</u>	
<b>Copper Films</b>				
Cu <sub>2</sub> S	195 Å	802 Å	2346 Å	
Cu <sub>2</sub> O	4875 Å	20010 Å	58510 Å	
Unknowns	93 Å	381 Å	1115 Å	
Totals	5163 Å	21193 Å	61971 Å	
<b>Silver Films</b>				
AgCl	435 Å	5299 Å	26496 Å	
Ag <sub>2</sub> S	100 Å	1220 Å	6101 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	535 Å	6519 Å	32597 Å	

**Gold Pore Corrosion:**  
Note: 1000 Å = 0.1 micron

**Equipment Reliability Correlation**  
(ISA Standard S71.04-1985 for Copper)

