

# LABORATORY ANALYSIS



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**COPELAND(EMERSON CLIMATE TECHNOLOGIES)**  
3101 W MILITARY HWY BUILDING 2, (SALTILLO PLANT)  
SALTILLO, AM  
MX  
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Department **DIECAST**  
Equipment No. **HORNO IBS01 (X0003)**  
System **Heat Transfer Fluid**  
Oil Type **ENGINEERED LUBRICANTS EL-IHS-DISTILLED WATER (706983 GAL)**

## Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

## Sample Information

Lab Number	New	<b>2404-00424</b>	2309-00817	2110-00589
Date of Sample	(Typical)	<b>05 Apr 2024</b>	16 Aug 2023	21 Oct 2021
Oil Added		<b>UNK</b>	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		<b>NORMAL</b>	SEVERE	NORMAL

## pH (ASTM E-70)

pH	Scale 0-14	<b>6.7</b>	7.7	6.6
Ratio Rec'd	oil:water	<b>AS REC'D</b>	AS REC'D	AS REC'D

## HARDNESS (mg/L CaCO3)

Hardness (CaCO3)	mg/L	<b>&lt;6.6</b>	11.6	<6.6
Grains		<b>&lt;1.0</b>	<1.0	<1.0

## BACTERIA COUNT (Class Range 0 to 6)

Bacteria Class	Scale 0-6	<b>0</b>	---	0
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## FUNGUS COUNT (Class Ranges: Yeast 0 to 4/Mold 0 to 3)

Yeast Class	Scale 0-4	<b>0</b>	---	0
Mold Class	Scale 0-3	<b>0</b>	---	0

## ICP - WATER BASED (ppm)

Aluminum (Al)	ppm	<b>&lt;5</b>	<5	<5
Boron (B)	ppm	<b>&lt;5</b>	<5	<5
Barium (Ba)	ppm	<b>&lt;5</b>	<5	<5
Calcium (Ca)	ppm	<b>2</b>	3	<1
Cadmium (Cd)	ppm	<b>&lt;5</b>	<5	<5
Cobalt (Co)	ppm	<b>&lt;5</b>	<5	<5
Chromium (Cr)	ppm	<b>&lt;5</b>	<5	<5
Copper (Cu)	ppm	<b>6</b>	<5	<5
Iron (Fe)	ppm	<b>&lt;5</b>	<5	<5
Magnesium (Mg)	ppm	<b>&lt;1</b>	<1	<1
Manganese (Mn)	ppm	<b>&lt;5</b>	<5	<5
Molybdenum(Mo)	ppm	<b>&lt;5</b>	<5	<5
Nickel (Ni)	ppm	<b>&lt;5</b>	<5	<5
Lead (Pb)	ppm	<b>&lt;5</b>	<5	<5
Antimony (Sb)	ppm	<b>&lt;5</b>	<5	<5
Silicon (Si)	ppm	<b>&lt;5</b>	<5	<5
Titanium (Ti)	ppm	<b>&lt;5</b>	<5	<5
Vanadium (V)	ppm	<b>&lt;5</b>	<5	<5
Zinc (Zn)	ppm	<b>&lt;5</b>	<5	<5
Phosphorus(P)	ppm	<b>&lt;5</b>	<5	<5
Sodium (Na)	ppm	<b>&lt;5</b>	44	6
Sulfur (S)	ppm	<b>&lt;5</b>	12	<5

## ENERGY DISPERSIVE XRF (\*BELOW MINIMUM DETECTION LIMIT)

ppm Chlorine (Cl)	ppm	*	*	*
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Customer Id: EMESAL  
Sample No.: EN24040424  
Lab Number: 24040424  
Test Package: TEST



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To discuss the diagnosis or test data:

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# OIL ANALYSIS REPORT

## CONDUCTIVITY OF WATER

Conductivity	Micromhos	<b>30.2</b>	215	24.3
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## Contamination

Water	>0.0601	<b>NEG</b>	NEG	NEG
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