## LABORATORY ANALYSIS



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## **COPELAND (MHDS)**

6001 S. 35TH STREET, SUITE D"" REYNOSA, ZZ

US

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T: F:

Department REYLAM - DIECAST

Equipment No. PROTECH07 IHS ANNEAL QUENCH (X0071)

System Unknown Component

Oil Type ENGINEERED LUBRICANTS ENCOOL SOL-6465GF-ND-XL-RO (--- GAL)

## **DIAGNOSIS**

Please add 1/2 gallon of ENCOOL PH-1-2 to the reservoir to increase alkalinity.All component wear rates are normal. There is no indication of any contamination in the sample. The condition of the sample is acceptable for the time in service.

SAMPLE INFOR	MATIO	N			
Lab Number		New	2312-01086	2312-00138	2310-00659
Date of Sample		(Typical)	20 Dec 2023	28 Nov 2023	10 Oct 2023
Oil Added  Last Drain Date			UNK 	UNK 	UNK 
Months on Sample			39.7	39.0	37.4
Last Filter Service					
Sample Point					
Sample Status			SEVERE	ABNORMAL	SEVERE
RATIO PER REF	FRACTO	OMETER			
Refract. Reading			2.4	3.8	2.1
Refract. Model			DIGITAL	DIGITAL	DIGITAL
Refract. Ratio	oil:water		<b>12:1</b>	<b>7</b> :1	<b>13:1</b>
ALKALINE RESI	ERVE (/	ADDITION (	OF DEIONIZED	WATER IS PREFI	ERRED)
Alkaline Reserve			<b>9</b> 1	<b>▲</b> 154	92
PH (ASTM E-70)	)				
рН	Scale 0-14		■8.9	■8.8	■8.8
Ratio Rec'd	oil:water		AS REC'D	AS REC'D	AS REC'D
HARDNESS (MO	G/L CAC	CO3)			
Hardness (CaCO3)	mg/L		20.7	14.1	19.1
Grains			1.2	<1.0	1.1
TOTAL AMINE					
Total	mmol/gram		<b>■</b> 0.12	<b>△</b> 0.18	□0.16
Tertiary	mmol/gram		0.06	■0.13	△ 0.08
Primary	mmol/gram		<b>0.06</b>	□0.05	▲ 0.08
CIC CORROSIO	N				
CIC Dilution			AS REC'D	AS REC'D	AS REC'D
CIC Corrosion	%		■ 0.0	0.0	0.0
GRAVIMETRIC,	MG/L				
Filter Micron	μ		0.45	0.45	0.45
Gravimetric	mg/L		<b>2</b>	<b>1</b> 2	<b>1</b> 0
BACTERIA COL	JNT (CL	ASS RANG	iE 0 TO 6)		
Bacteria Class	Scale 0-6		<b>□</b> 0	□0	<u></u> 2
FUNGUS COUN	IT (CLA	SS RANGE	S: YEAST 0 TO	4/MOLD 0 TO 3)	
Yeast Class	Scale 0-4		<b>0</b>	П0	m1
Mold Class	Scale 0-3		0	0	0
ENERGY DISPE	RSIVE	XRF (*B <u>E</u> L	OW MINIMUM D	DETECTION LIMIT	
ppm Chlorine (Cl)	ppm		*	*	*
CONTAMINATIO	)N				
OCIATA WILLYATIC	<i>-</i> 1				

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Customer Id: MOTMCA Sample No.: EN23121086 Lab Number: 23121086 Test Package: TEST

Water

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## **FUEL REPORT**

