

# LABORATORY ANALYSIS



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Department **REYLAM - DIECAST**  
Equipment No. **PROTECH01 IHS ANNEAL QUENCH (X0073)**  
System **Quenching Fluid**  
Oil Type **ENGINEERED LUBRICANTS ENCOOL SOL-6465GF-ND-XL-RO (--- GAL)**

## DIAGNOSIS

Add make up dilution of 50:1 ENGINEERED LUBRICANTS ENCOOL SOL-6465GF-ND-XL-RO lean dilution until reaching recommended dilution of 10. The desired refractometer reading for this reservoir is 3.02. Leaning the dilution will lower the alkaline reserve and amines back to Moree acceptable levels.(not applicable) There is no indication of any contamination in the quenching fluid. Ratio is slightly strong. Total amine content is out of range. Tertiary amine content is out of range. Primary amine content is out of range. Alkaline Reserve is excessively high.

## SAMPLE INFORMATION

Lab Number	New	2310-00654	2309-00658	2308-00884
Date of Sample	(Typical)	10 Oct 2023	14 Sep 2023	09 Aug 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		37.4	36.6	35.4
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		SEVERE	SEVERE	SEVERE

## RATIO PER REFRACTOMETER

Refract. Reading		3.9	1.4	1.8
Refract. Model		DIGITAL	DIGITAL	DIGITAL
Refract. Ratio	oil:water	▲ 7:1	◆ 21:1	▲ 16:1

## ALKALINE RESERVE (ADDITION OF DEIONIZED WATER IS PREFERRED)

Alkaline Reserve		◆ 164	◆ 58	◆ 90
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## PH (ASTM E-70)

pH	Scale 0-14	■ 8.9	▲ 8.8	■ 8.9
Ratio Rec`d	oil:water	AS REC'D	AS REC'D	AS REC'D

## HARDNESS (MG/L CaCO3)

Hardness (CaCO3)	mg/L	19.8	38.2	120.2
Grains		1.2	2.2	7.1

## TOTAL AMINE

Total	mmol/gram	▲ 0.23	◆ 0.08	◆ 0.09
Tertiary	mmol/gram	▲ 0.16	◆ 0.05	◆ 0.06
Primary	mmol/gram	▲ 0.07	■ 0.03	■ 0.03

## CIC CORROSION

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	■ 4	■ 8	■ 4

## BACTERIA COUNT (CLASS RANGE 0 TO 6)

Bacteria Class	Scale 0-6	■ 0	▲ 3	▲ 3
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## FUNGUS COUNT (CLASS RANGES: YEAST 0 TO 4/MOLD 0 TO 3)

Yeast Class	Scale 0-4	■ 0	■ 1	■ 1
Mold Class	Scale 0-3	■ 0	■ 0	■ 0

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

ppm Chlorine (Cl)	ppm	*	*	*
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## CONTAMINATION

Water		NEG	NEG	NEG
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Customer Id: MOTMCA  
Sample No.: EN23100654  
Lab Number: 23100654  
Test Package: TEST



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# FUEL REPORT

