

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

Very likely, based on the prior report, and excessive amount of pH buffer was added to this system. The high pH is a concern, however without any additional introductions, it should correct on it's own within a few days. Recommendation is to monitor and collect a sample again in a month and observe trend in pH to ensure it is returning to normal. {not applicable} There is no indication of any contamination in the quenching fluid. The pH is marginally high. High pH can lead to aluminum corrosion and unpleasant work environment. Inspect for foreign sources such as alkaline cleaners causing the elevated pH. Primary amine content is out of range. Alkaline Reserve is excessively high. With care and observation, fluid is suitable for continued use.

SAMPLE INFORMATION

Lab Number	New	2306-00310	2305-00474	2304-00562
Date of Sample	(Typical)	06 Jun 2023	03 May 2023	11 Apr 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		33.3	32.2	31.5
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		SEVERE	SEVERE	NORMAL

RATIO PER REFRACTOMETER

Refract. Reading		2.9	2.3	2.8
Refract. Model		DIGITAL	DIGITAL	DIGITAL
Refract. Ratio	oil:water	9:1	12:1	10:1

ALKALINE RESERVE (ADDITION OF DEIONIZED WATER IS PREFERRED)

Alkaline Reserve		144	85	111
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PH (ASTM E-70)

pH	Scale 0-14	9.6	8.6	9.0
Ratio Rec'd	oil:water	AS REC'D	AS REC'D	AS REC'D

HARDNESS (MG/L CaCO3)

Hardness (CaCO3)	mg/L	52.8	47.2	117.0
Grains		3.1	2.8	6.9

TOTAL AMINE

Total	mmol/gram	0.17	0.15	0.13
Tertiary	mmol/gram	0.09	0.08	0.09
Primary	mmol/gram	0.08	0.07	0.04

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	12	70	12

BACTERIA COUNT (CLASS RANGE 0 TO 6)

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

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

ENERGY DISPERSIVE XRF (*BELOW MINIMUM DETECTION LIMIT)

ppm Chlorine (Cl)	ppm	*	*	89
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Customer Id: MOTMCA
Sample No.: EN23060310
Lab Number: 23060310
Test Package: TEST



To manage this report scan the QR code

To discuss the diagnosis or test data:

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FUEL REPORT

