

# LABORATORY ANALYSIS



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Department **CONSOLIDATED**  
Equipment No. **EF-1098 CUT OFF MACHINE (28)**  
System **Hydraulic System**  
Oil Type **ENGINEERED LUBRICANTS ENLUBE 25-AW (--- GAL)**

## DIAGNOSIS

We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Copper (Cu) ppm levels are abnormal. Oil cooler core leaching or motor piston wear is indicated. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

Lab Number	New	2312-00939	2308-00097	2112-01044
Date of Sample	(Typical)	<b>20 Dec 2023</b>	02 Aug 2023	30 Dec 2022
Oil Added		<b>UNK</b>	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## VISCOSITY @ 100F OR 40C (ASTM D-445)

SSU Vis. @ 100F	SSU	272.8	272.8	259.8
cSt Vis. @ 40C	cSt	56	52.77	50.29

## COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	1.0	1.0	1.5
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## PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/17/14	20/18/15	18/15/12	16/14/10
4 Micron & Larger	particles/ml	>5000	<b>▲ 7,878</b>	1,582	544
6 Micron & Larger	particles/ml	>1300	<b>▲ 2,475</b>	290	85
14 Micron & Larger	particles/ml	>160	<b>▲ 255</b>	27	8
21 Micron & Larger	particles/ml	>40	<b>▲ 91</b>	9	2
38 Micron & Larger	particles/ml	>10	<b>■ 10</b>	1	0
70 Micron & Larger	particles/ml	>3	<b>2</b>	0	0

## ICP - OILS (REPORTED IN PARTS PER MILLION)

Aluminum (Al)	ppm		■ <5	■ <5	■ <5
Antimony (Sb)	ppm		<5	<5	<5
Cadmium (Cd)	ppm		<5	<5	<5
Chromium (Cr)	ppm		■ <5	■ <5	■ <5
Cobalt (Co)	ppm		<5	<5	<5
Copper (Cu)	ppm		▲ 23	▲ 24	▲ 40
Iron (Fe)	ppm		■ <5	■ <5	■ <5
Lead (Pb)	ppm		■ 16	■ 10	▲ 18
Manganese (Mn)	ppm		<5	<5	<5
Molybdenum(Mo)	ppm		<5	<5	<5
Nickel (Ni)	ppm		■ <5	■ <5	■ <5
Silver (Ag)	ppm		<5	<5	<5
Tin (Sn)	ppm		■ <5	■ <5	■ <5
Titanium (Ti)	ppm		<5	<5	<5
Vanadium (V)	ppm		<5	<5	<5
Barium (Ba)	ppm		<5	<5	<5
Boron (B)	ppm		<5	<5	<5
Calcium (Ca)	ppm	80	■ 73	■ 71	48
Magnesium (Mg)	ppm		<5	<5	<5
Phosphorus(P)	ppm	532	■ 554	■ 528	524
Silicon (Si)	ppm		■ <5	■ <5	■ <5
Zinc (Zn)	ppm	668	■ 637	■ 639	604
Sulfur (S)	ppm	1545	■ 1,770	■ 1,620	1,690

Customer Id: ENC0011601  
Sample No.: EN0000172  
Lab Number: 23120939  
Test Package: TEST



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To discuss the diagnosis or test data:

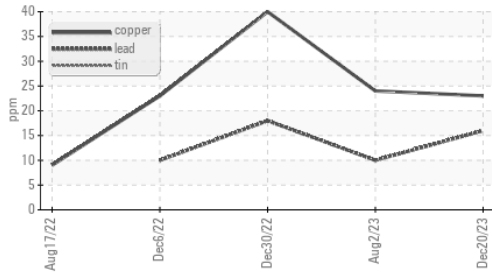
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# OIL ANALYSIS REPORT

### ▲ Non-ferrous Metals



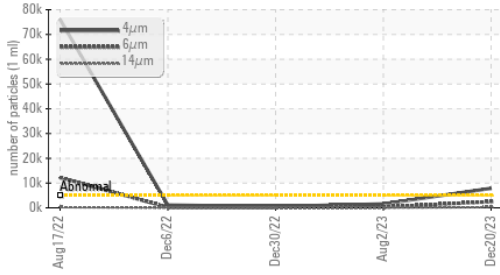
### DR FERROGRAPHY READINGS

L		6.4	2.4	3.5
S		4.5	1.1	2.0
WPC	DL + DS	10.9	3.5	5.5

### CONTAMINATION

Water	>0.05	<b>NEG</b>	NEG	NEG
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### ▲ Particle Trend



### Viscosity @ 40°C

