



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**11437540**  
 Component  
**Unknown Component**  
 Fluid  
**SHELL OMALA 220 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

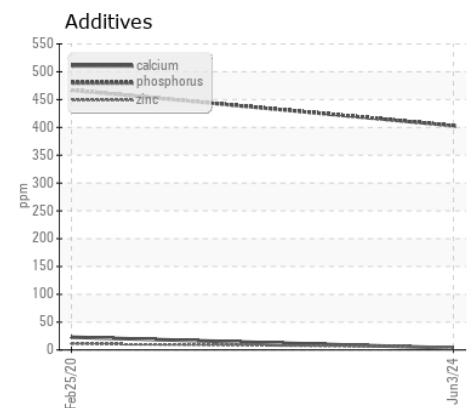
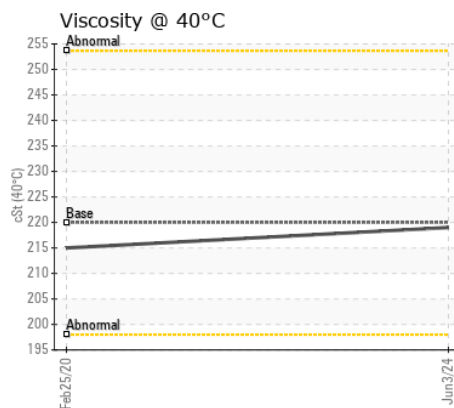
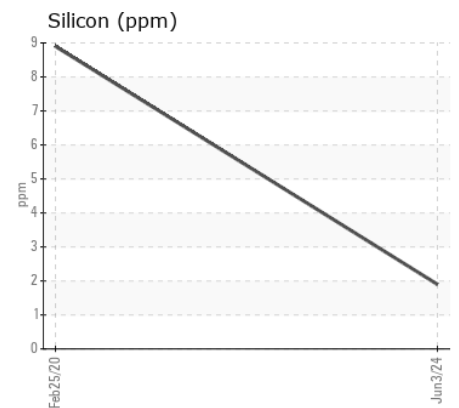
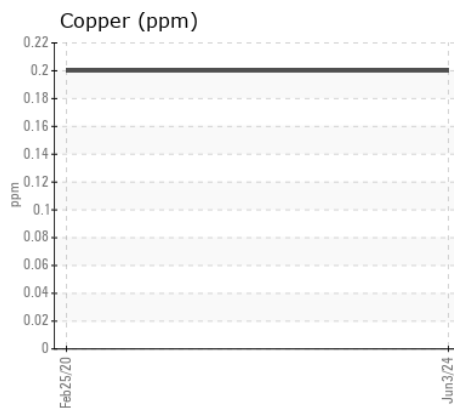
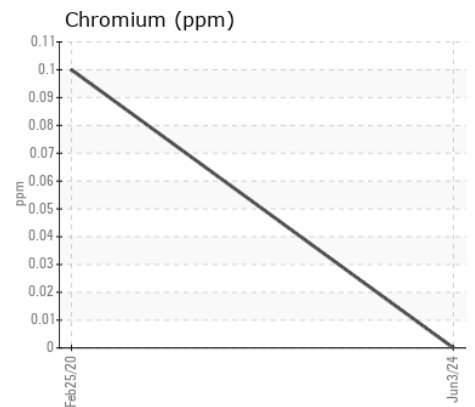
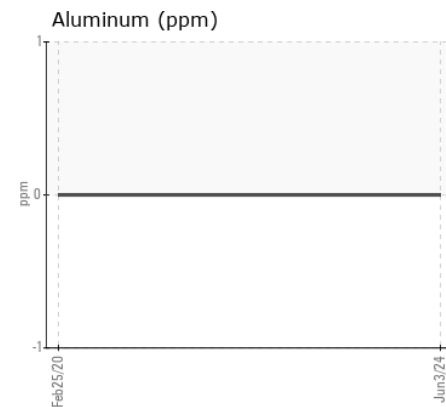
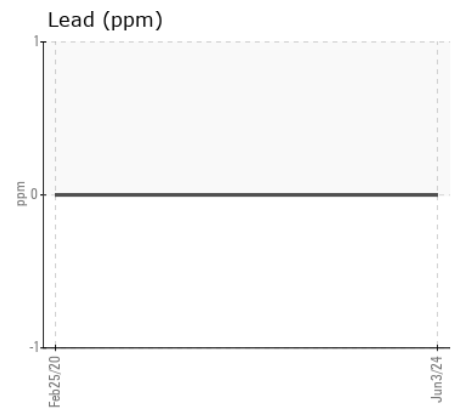
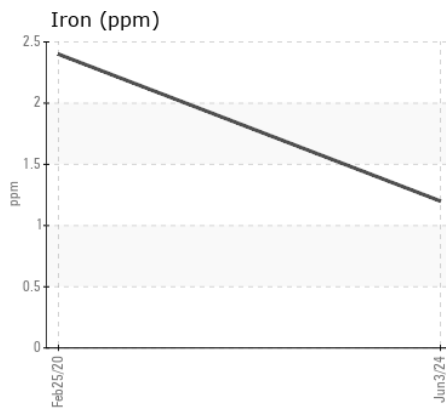
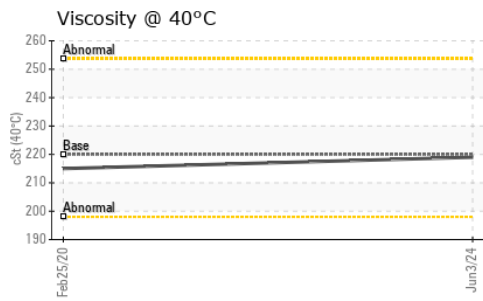
## CONTAMINATION

There is no indication of any contamination in the sample.

## FLUID CONDITION

The condition of the sample is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0304905	WC0304983	---
Sample Date		Client Info		03 Jun 2024	25 Feb 2020	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---
Iron	ppm	ASTM D5185(m)		1	2	---
Chromium	ppm	ASTM D5185(m)		0	<1	---
Nickel	ppm	ASTM D5185(m)		0	0	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)		0	0	---
Lead	ppm	ASTM D5185(m)		0	0	---
Copper	ppm	ASTM D5185(m)		<1	<1	---
Tin	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185(m)		2	9	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---
Water		WC Method		NEG	NEG	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*		NEG	NEG	---
Sodium	ppm	ASTM D5185(m)		<1	1	---
Boron	ppm	ASTM D5185(m)	4.4	25	24	---
Barium	ppm	ASTM D5185(m)	0.0	<1	<1	---
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)	0	<1	3	---
Calcium	ppm	ASTM D5185(m)	0	4	23	---
Phosphorus	ppm	ASTM D5185(m)	215	403	467	---
Zinc	ppm	ASTM D5185(m)	0	5	11	---
Sulfur	ppm	ASTM D5185(m)	7039	4956	5023	---
Visc @ 40°C	cSt	ASTM D7279(m)	220	219	215	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0304905 **Received** : 11 Jun 2024  
**Lab Number** : 02641278 **Tested** : 12 Jun 2024  
**Unique Number** : 5798817 **Diagnosed** : 12 Jun 2024 - Kevin Marson  
**Test Package** : MOB 1

**Vale - Copper Cliff Smelter**  
 COPPER CLIFF SMELTER WAREHOUSE, 155 BALSAM ST.  
 COPPER CLIFF, ON  
 CA P0M 1N0  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.