



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
61-46-1507M
Component
Unknown Component
Fluid
SHELL OMALA S2 G 220 (--- GAL)

RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. Please provide more complete information on your next sample.

WEAR

All component wear rates are normal.

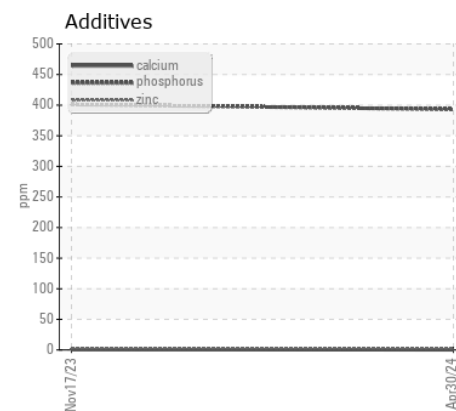
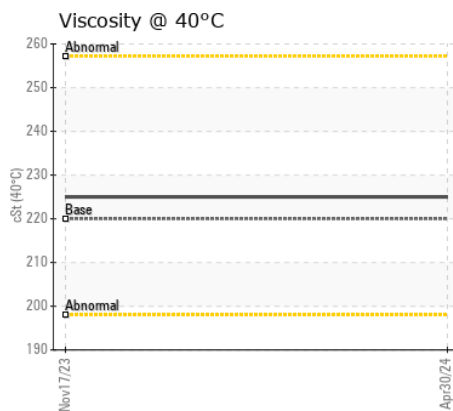
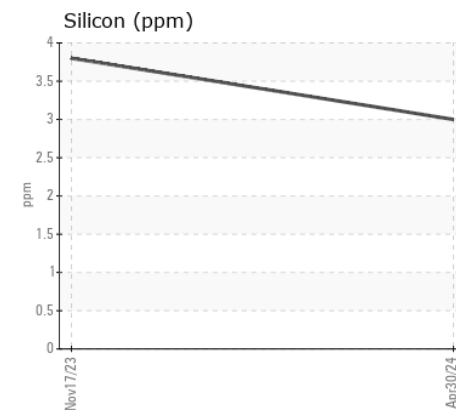
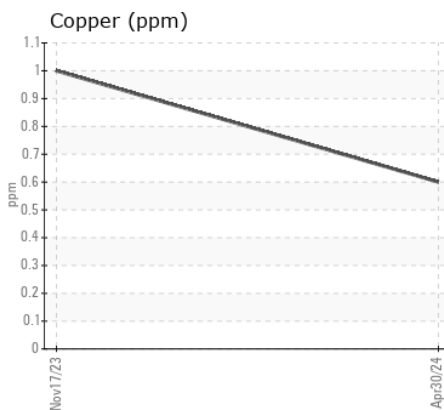
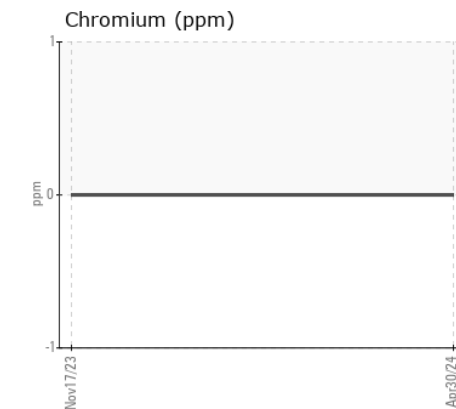
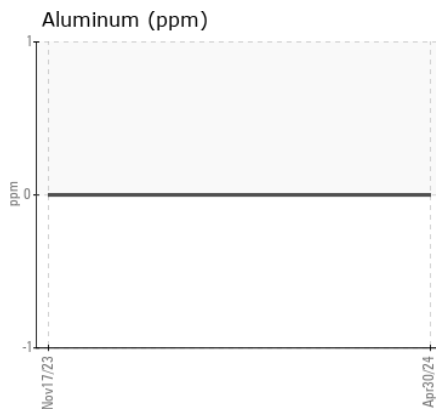
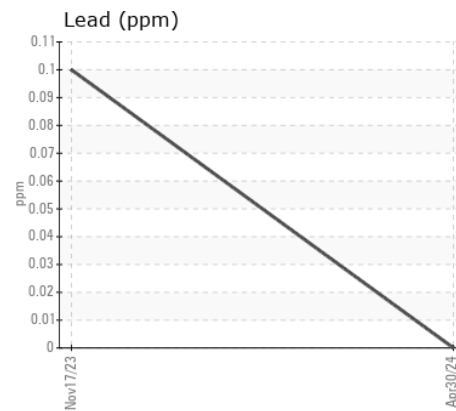
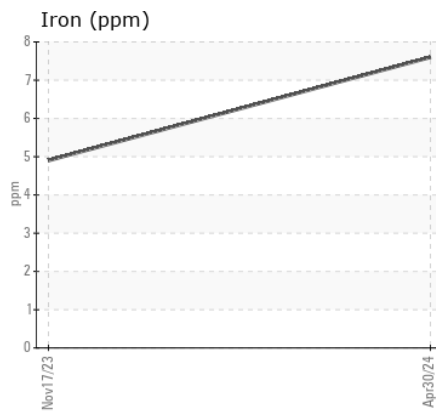
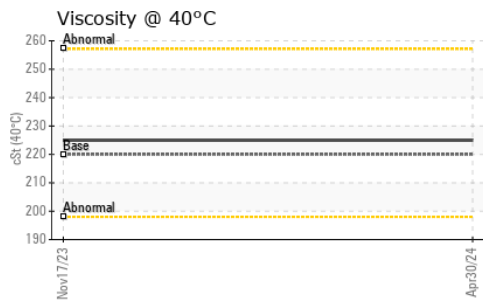
CONTAMINATION

There is no indication of any contamination in the sample.

FLUID CONDITION

Viscosity of sample indicates oil is within ISO 220 range, advise investigate. The condition of the sample is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0304915	WC0304813	---
Sample Date		Client Info		30 Apr 2024	17 Nov 2023	---
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)		8	5	---
Chromium	ppm	ASTM D5185(m)		0	0	---
Nickel	ppm	ASTM D5185(m)		0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	<1	---
Aluminum	ppm	ASTM D5185(m)		0	0	---
Lead	ppm	ASTM D5185(m)		0	<1	---
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)		3	4	---
Potassium	ppm	ASTM D5185(m)	>20	<1	0	---
Water		WC Method		NEG	NEG	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	VLITE	---
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	16	16	---
Barium	ppm	ASTM D5185(m)	0.0	<1	<1	---
Molybdenum	ppm	ASTM D5185(m)	0	0	0	---
Manganese	ppm	ASTM D5185(m)		0	0	---
Magnesium	ppm	ASTM D5185(m)	0	0	0	---
Calcium	ppm	ASTM D5185(m)	0	<1	<1	---
Phosphorus	ppm	ASTM D5185(m)	215	393	401	---
Zinc	ppm	ASTM D5185(m)	0	3	3	---
Sulfur	ppm	ASTM D5185(m)	7039	4658	4693	---
Visc @ 40°C	cSt	ASTM D7279(m)	220	225	225	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0304915 **Received** : 01 May 2024
Lab Number : 02632608 **Tested** : 01 May 2024
Unique Number : 5773761 **Diagnosed** : 01 May 2024 - Kevin Marson
Test Package : MOB 1

Vale - Copper Cliff Smelter
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 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.