



OIL ANALYSIS REPORT

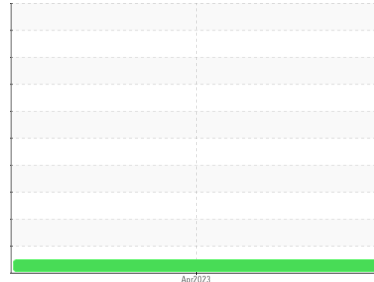
Sample Rating Trend

NORMAL



Machine Id
10583375 - #1MOTOR

Component
Unknown Component
Fluid
NOT GIVEN (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil 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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0752043	---	---
Sample Date	Client Info		03 Apr 2023	---	---
Machine Age	mths	Client Info	6	---	---
Oil Age	mths	Client Info	1	---	---
Oil Changed	Client Info		Not Chngd	---	---
Sample Status			NORMAL	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	2	---	---
Chromium	ppm	ASTM D5185(m)	0	---	---
Nickel	ppm	ASTM D5185(m)	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	0	---	---
Aluminum	ppm	ASTM D5185(m)	0	---	---
Lead	ppm	ASTM D5185(m)	0	---	---
Copper	ppm	ASTM D5185(m)	<1	---	---
Tin	ppm	ASTM D5185(m)	0	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	11	---	---
Barium	ppm	ASTM D5185(m)	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	---	---
Manganese	ppm	ASTM D5185(m)	0	---	---
Magnesium	ppm	ASTM D5185(m)	0	---	---
Calcium	ppm	ASTM D5185(m)	<1	---	---
Phosphorus	ppm	ASTM D5185(m)	436	---	---
Zinc	ppm	ASTM D5185(m)	2	---	---
Sulfur	ppm	ASTM D5185(m)	5013	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

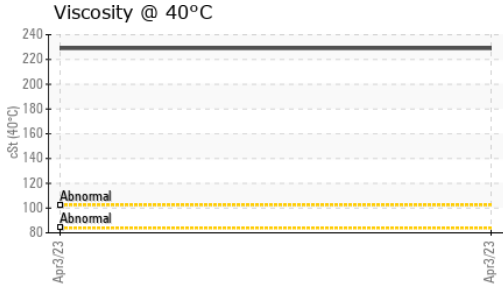
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	3	---	---
Sodium	ppm	ASTM D5185(m)	<1	---	---
Potassium	ppm	ASTM D5185(m) >20	<1	---	---

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	NEG	---	---
Free Water	scalar	Visual*	NEG	---	---



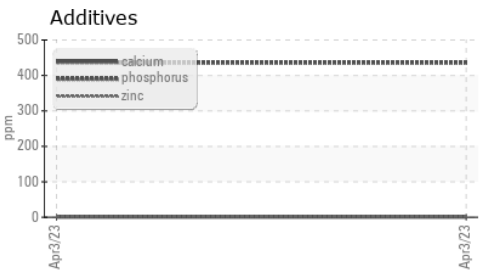
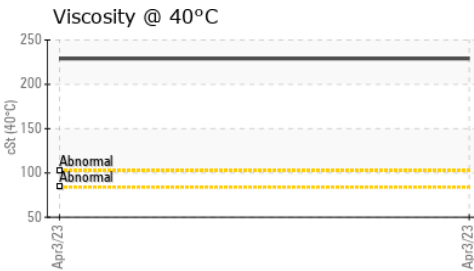
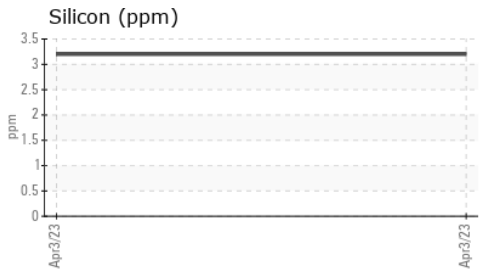
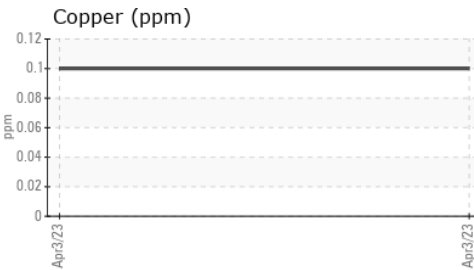
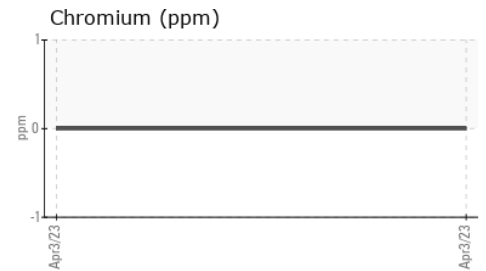
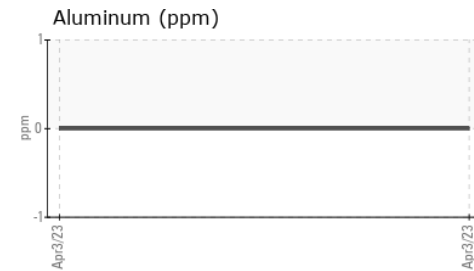
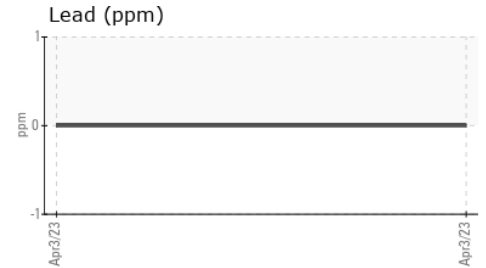
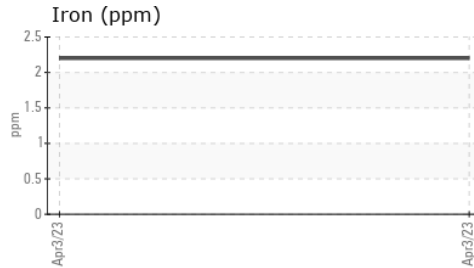
OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	229	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0752043 **Received** : 31 Aug 2023
Lab Number : 02579864 **Diagnosed** : 01 Sep 2023
Unique Number : 5632924 **Diagnostician** : Kevin Marson
Test Package : MOB 1

Vale - Copper Cliff Smelter
 COPPER CLIFF SMELTER WAREHOUSE, 155 BALSAM ST.
 COPPER CLIFF, ON
 CA P0M 1N0
 Contact: Jacynthe Gelinas
 jacynthe.gelinas@vale.com
 T: (705)682-5980
 F: (705)682-6535

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.