



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**11392115**  
Component  
**Hydraulic System**  
Fluid  
**FORSYTHE NO FIRE HPWG 46B (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

## WEAR

All component wear rates are normal.

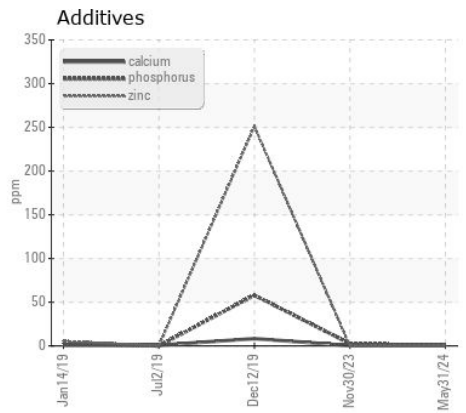
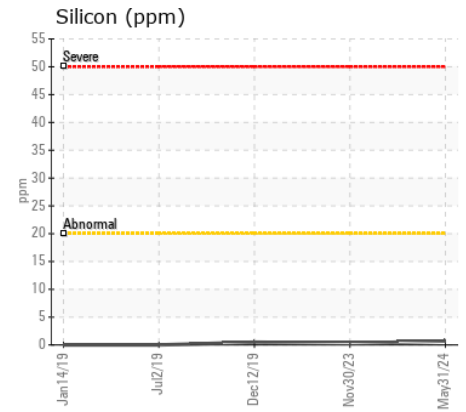
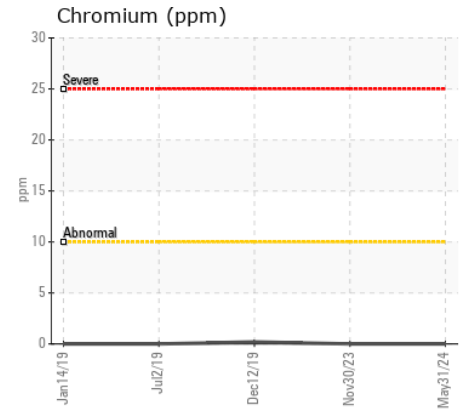
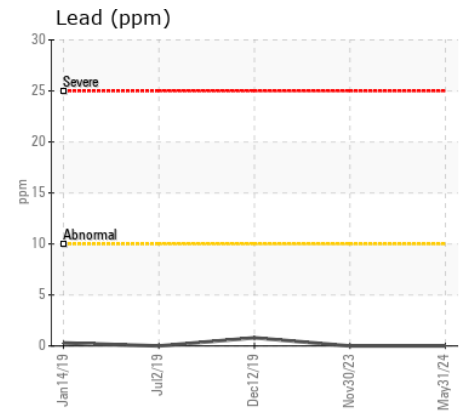
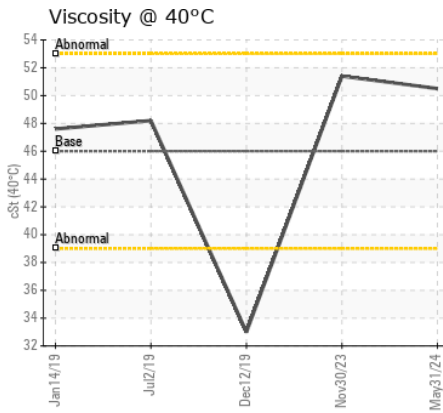
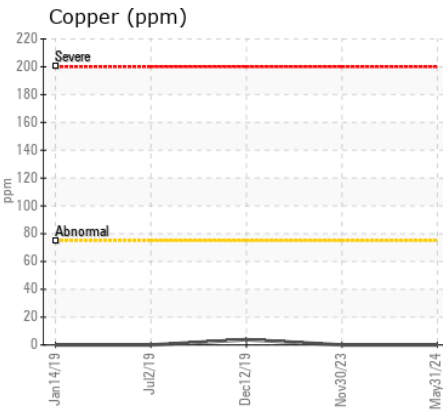
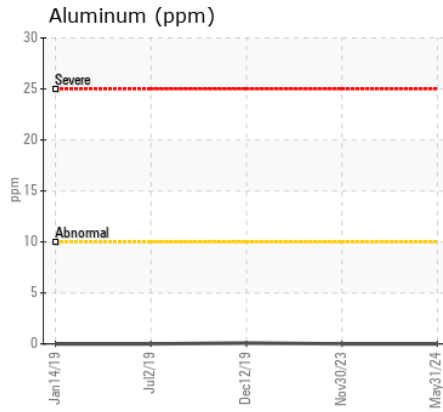
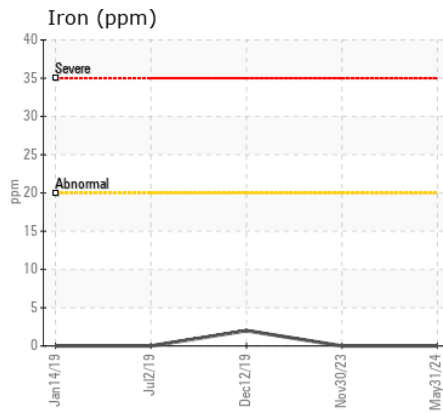
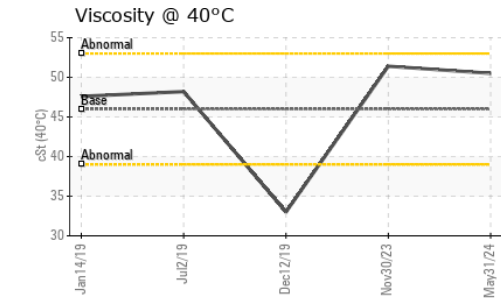
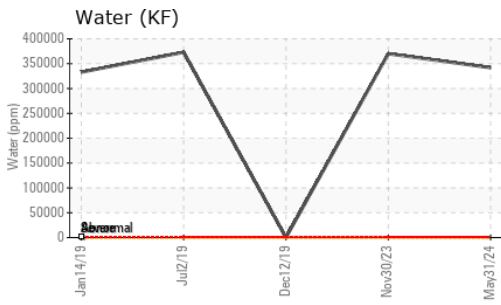
## CONTAMINATION

There is no indication of any contamination in the component(unconfirmed).

## FLUID CONDITION

The water concentration level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0304913</b>	WC0304809	WC0304981
Sample Date		Client Info		<b>31 May 2024</b>	30 Nov 2023	12 Dec 2019
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	2
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>75	<b>0</b>	0	4
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	40	<1
Water	%	ASTM D6304*	>50	<b>34.2</b>	37.0	---
ppm Water	ppm	ASTM D6304*		<b>342000</b>	370000	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	LIGHT
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>FRGLY</b>	FRGLY	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>50	<b>&gt;10%</b>	>10%	NEG
Sodium	ppm	ASTM D5185(m)		<b>5</b>	7	0
Boron	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0.2	<b>1</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	0.7	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	2.7	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m)	3.1	<b>&lt;1</b>	<1	8
Phosphorus	ppm	ASTM D5185(m)	6.8	<b>&lt;1</b>	3	58
Zinc	ppm	ASTM D5185(m)	2.1	<b>0</b>	0	251
Sulfur	ppm	ASTM D5185(m)	326	<b>46</b>	58	157
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>50.5</b>	51.4	33.0



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0304913 **Received** : 11 Jun 2024  
**Lab Number** : 02641287 **Tested** : 14 Jun 2024  
**Unique Number** : 5798826 **Diagnosed** : 14 Jun 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KF )

**Vale - Copper Cliff Smelter**  
 COPPER CLIFF SMELTER WAREHOUSE, 155 BALSAM ST.  
 COPPER CLIFF, ON  
 CA P0M 1N0  
 Contact: Andy Kozachanko  
 andrew.kozachanko@vale.com  
 T: (705)682-6687  
 F: (705)682-6939

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.