



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
61-35-000-085

Component
Hydraulic System

Fluid
FIRE-RESISTANT FLUID ISO 46 (--- GAL)

RECOMMENDATION

We advise that you add water to increase the water concentration level to 40%. Ensure that only distilled water or boiler feed water condensate are used for make-up. We recommend an early resample to monitor this condition. 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

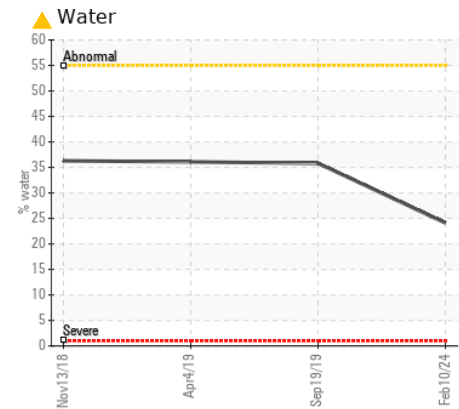
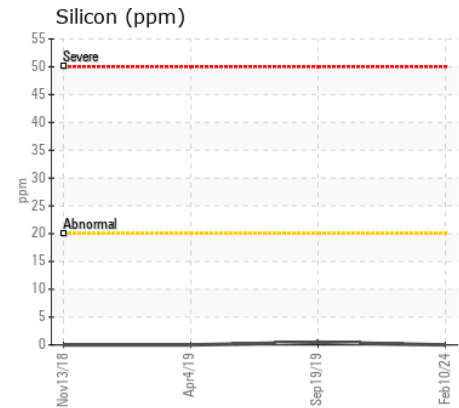
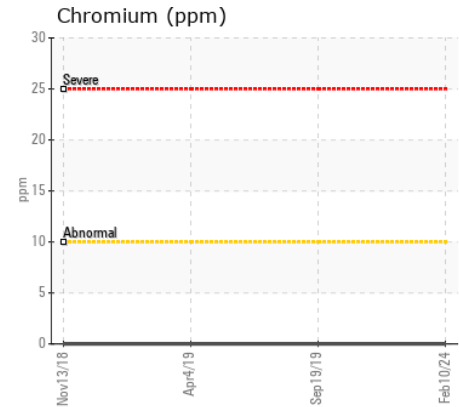
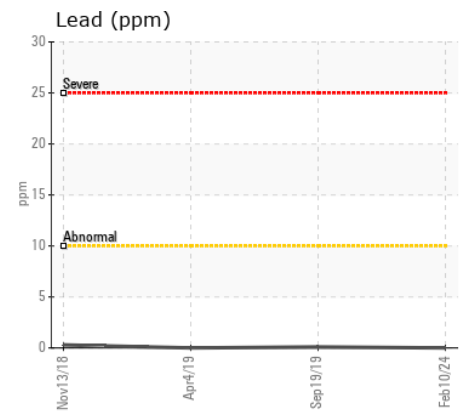
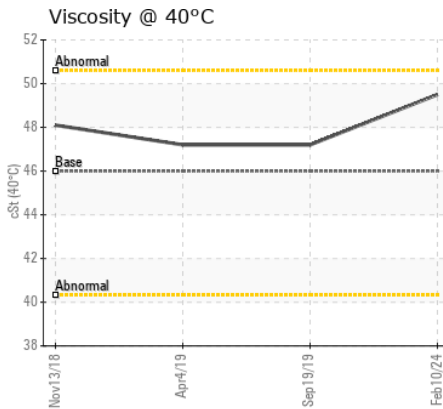
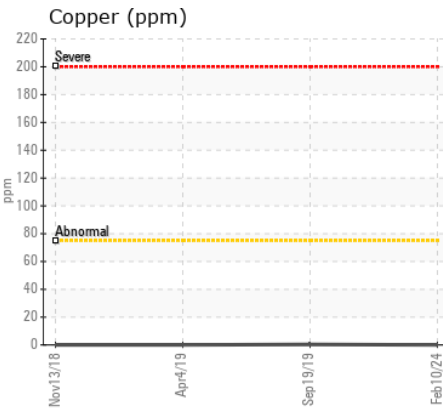
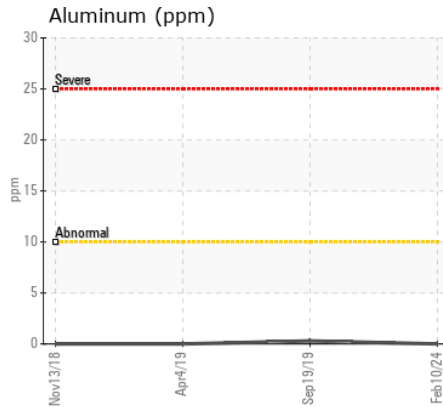
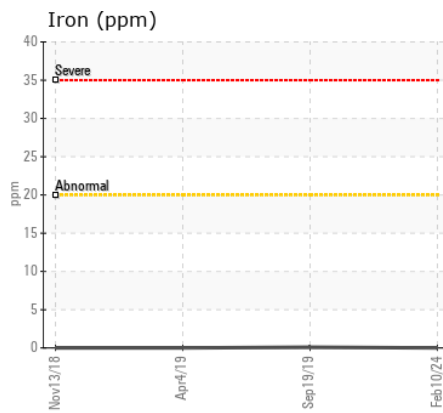
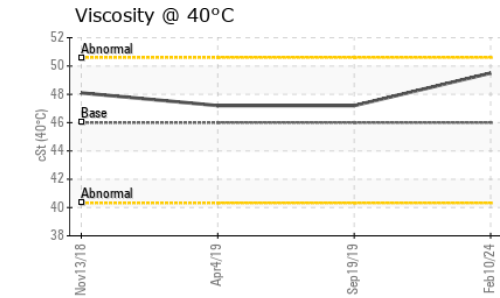
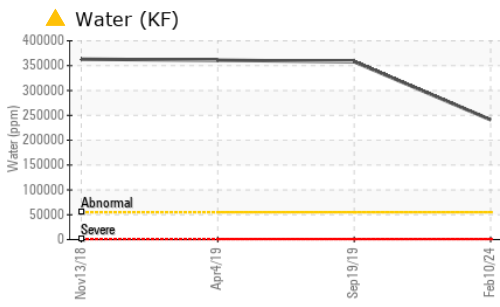
The water concentration level is lower than acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0304938	WC0304963	WC0279998
Sample Date		Client Info		10 Feb 2024	19 Sep 2019	04 Apr 2019
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

Iron	ppm	ASTM D5185(m)	>20	0	<1	0
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)		<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	0	<1	0
Lead	ppm	ASTM D5185(m)	>10	0	<1	0
Copper	ppm	ASTM D5185(m)	>75	0	<1	0
Tin	ppm	ASTM D5185(m)	>10	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	<1	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

Silicon	ppm	ASTM D5185(m)	>20	0	<1	0
Potassium	ppm	ASTM D5185(m)	>20	14	41	18
Water	%	ASTM D6304*	>55	▲ 24.1	35.8	36.1
ppm Water	ppm	ASTM D6304*	>55000	▲ 241000	358000	361000
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ FRGLY	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>55	>10%	>10%	>10%

Sodium	ppm	ASTM D5185(m)		6	5	11
Boron	ppm	ASTM D5185(m)	5	1	2	0
Barium	ppm	ASTM D5185(m)	5	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	5	0	<1	<1
Manganese	ppm	ASTM D5185(m)		0	<1	0
Magnesium	ppm	ASTM D5185(m)	5	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	50	0	<1	<1
Phosphorus	ppm	ASTM D5185(m)	175	1	<1	0
Zinc	ppm	ASTM D5185(m)	62	0	7	0
Sulfur	ppm	ASTM D5185(m)	500	55	27	0
Visc @ 40°C	cSt	ASTM D7279(m)	46	49.5	47.2	47.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0304938
Lab Number : 02619077
Unique Number : 5736187
Test Package : MOB 1 (Additional Tests: KF)

Received : 29 Feb 2024
Tested : 06 Mar 2024
Diagnosed : 06 Mar 2024 - Kevin Marson

Vale - Copper Cliff Smelter
 COPPER CLIFF SMELTER WAREHOUSE, 155 BALSAM ST.
 COPPER CLIFF, ON
 CA P0M 1N0
 Contact: Andy Kozachanko
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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.