



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Industrial Mechanical/Conveyors
Machine Id
17-UGCNVY-CV-6680-3
Component
Drive End Conveyor Gearbox
Fluid
ESSO SPARTAN EP 220 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0866398	WC0866336	WC0540541
Sample Date		Client Info		01 May 2024	07 Feb 2024	15 Nov 2023
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	Not Changd
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

Lead ppm levels are severe.

Iron	ppm	ASTM D5185(m)	>100	33	26	27
Chromium	ppm	ASTM D5185(m)		1	<1	<1
Nickel	ppm	ASTM D5185(m)		<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)		1	<1	1
Lead	ppm	ASTM D5185(m)	>15	▲ 137	▲ 130	▲ 124
Copper	ppm	ASTM D5185(m)	>35	<1	<1	<1
Tin	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	VLITE

CONTAMINATION

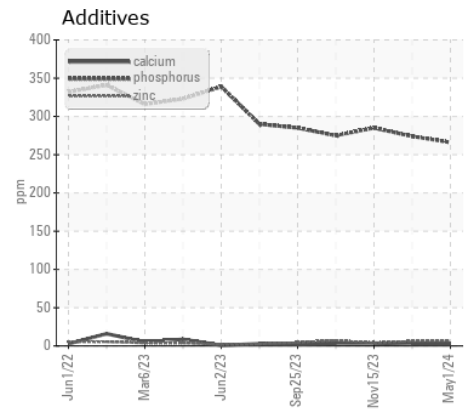
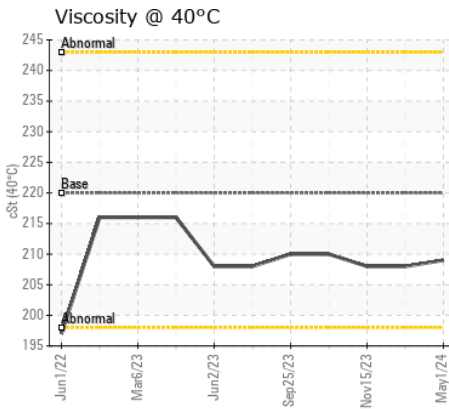
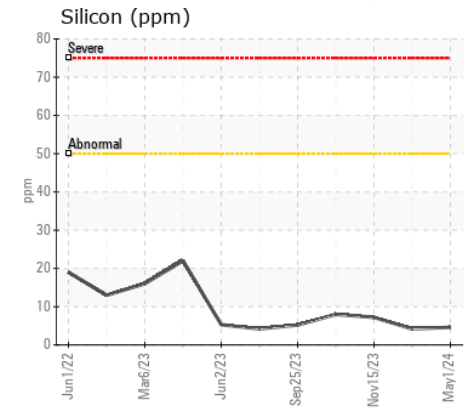
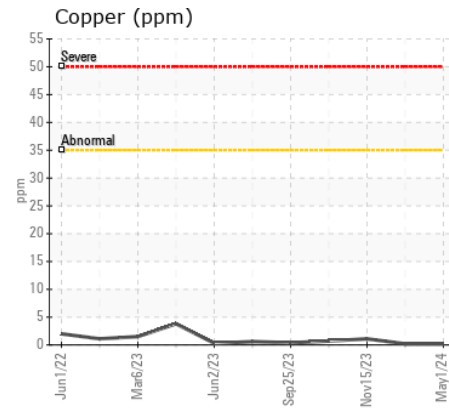
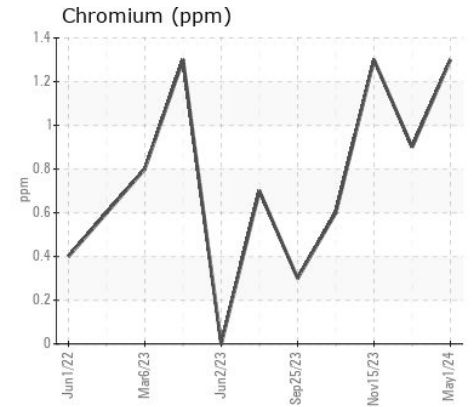
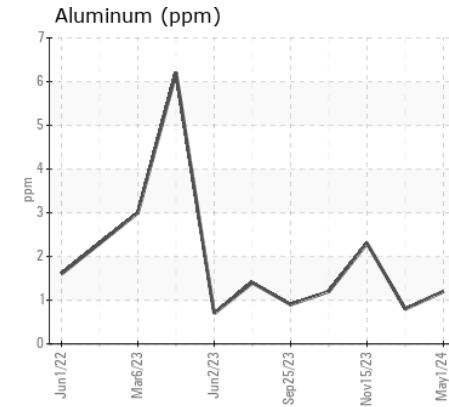
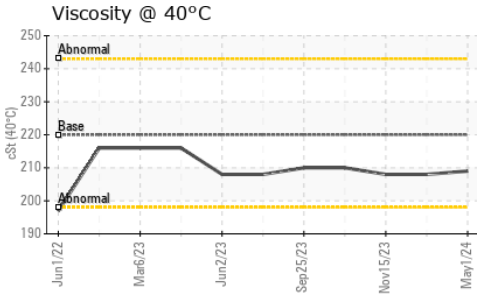
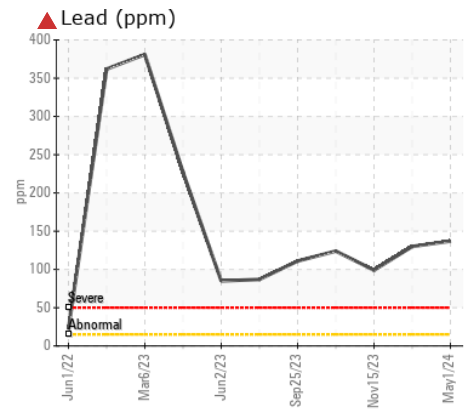
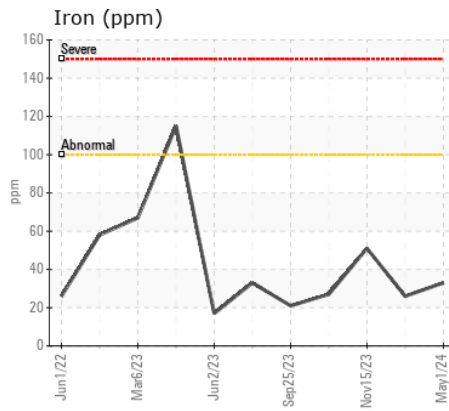
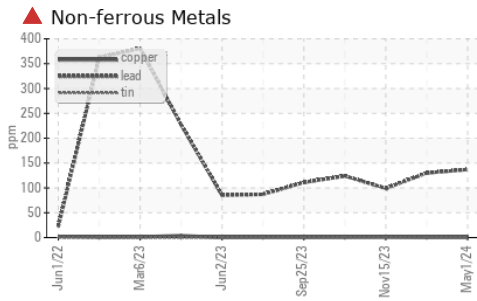
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	5	4	8
Potassium	ppm	ASTM D5185(m)	>20	<1	1	0
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)	.5	<1	<1	<1
Barium	ppm	ASTM D5185(m)		<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	1.7	3	3	4
Phosphorus	ppm	ASTM D5185(m)	250	266	274	285
Zinc	ppm	ASTM D5185(m)	.3	7	6	4
Sulfur	ppm	ASTM D5185(m)		7679	7738	8007
Visc @ 40°C	cSt	ASTM D7279(m)	220	209	208	208



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0866398
Lab Number : 02633969
Unique Number : 5775122
Test Package : MOB 1
Received : 07 May 2024
Tested : 07 May 2024
Diagnosed : 07 May 2024 - Kevin Marson

Vale - Creighton Mine
 CREIGHTON MINE MNTCE. (PLANT 17)
 COPPER CLIFF, ON
 CA P0M 1N0
 Contact: Igor Bozhyk
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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.