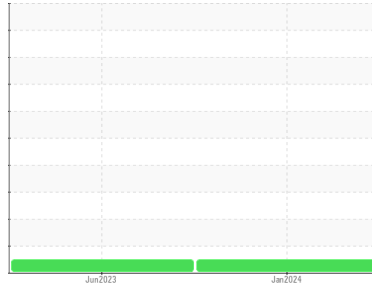




OIL ANALYSIS REPORT

Area
Haul Truck
Machine Id
HT5023
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0067105	PC0050695	---
Sample Date	Client Info			20 Jan 2024	04 Jun 2023	---
Machine Age	hrs	Client Info		10587	9532	---
Oil Age	hrs	Client Info		0	0	---
Oil Changed	Client Info			N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	---
Water	WC Method	>0.2		NEG	NEG	---
Glycol	WC Method			NEG	NEG	---

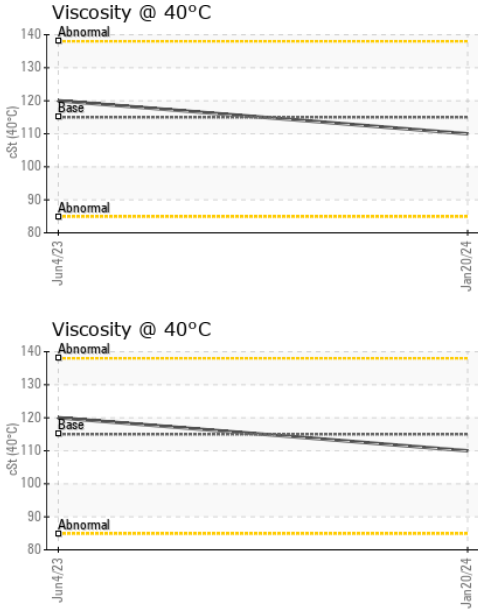
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	18	38	---
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	0	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	1	1	---
Lead	ppm	ASTM D5185(m)	>40	2	9	---
Copper	ppm	ASTM D5185(m)	>330	<1	2	---
Tin	ppm	ASTM D5185(m)	>15	0	<1	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<1	1	---
Barium	ppm	ASTM D5185(m)	10	0	0	---
Molybdenum	ppm	ASTM D5185(m)	100	59	63	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)	450	970	1037	---
Calcium	ppm	ASTM D5185(m)	3000	1073	1117	---
Phosphorus	ppm	ASTM D5185(m)	1150	1001	1076	---
Zinc	ppm	ASTM D5185(m)	1350	1182	1231	---
Sulfur	ppm	ASTM D5185(m)	4250	2691	2477	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	4	---
Sodium	ppm	ASTM D5185(m)	>158	2	2	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	1.3	2.1	---
Nitration	Abs/cm	ASTM D7624*	>20	6.5	9.0	---
Sulfation	Abs./1mm	ASTM D7415*	>30	20.4	23.8	---

OIL ANALYSIS REPORT

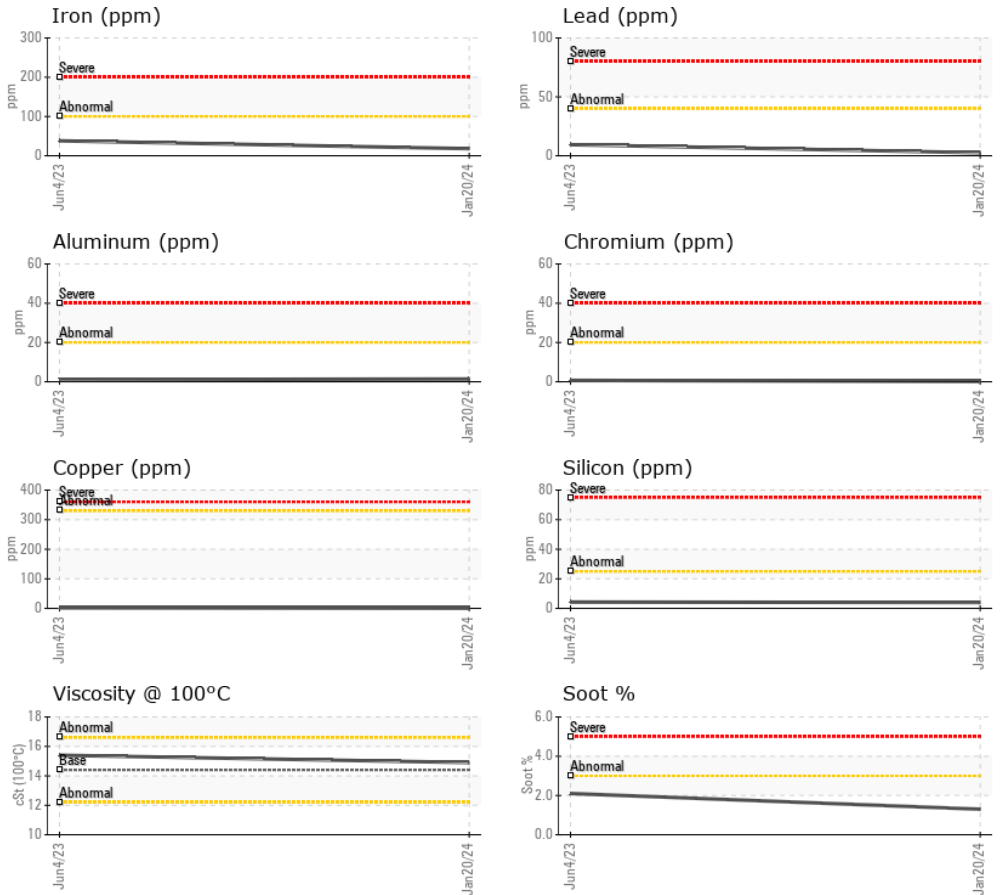


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.6	16.0	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---
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	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---
Free Water	scalar	Visual*		NEG	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	115	110	120	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.9	15.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	140	134	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0067105
Lab Number : **02614377**
Unique Number : 5723472
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

Lakeshore Gold Timmins West
 Timmins, ON
 CA
 Contact: Dale Arseneau
 darseneau@ca.panamericansilver.com
 T: (705)269-4344
 F:

*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.*