



Area
Haul Truck
Machine Id
HT5024
Component
Rear Differential
Fluid
PETRO CANADA TRAXON 85W140 (59 LTR)

RECOMMENDATION

We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0074941	PC0047130	---
Sample Date		Client Info		24 Dec 2023	07 Jun 2021	---
Machine Age	hrs	Client Info		9972	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

Light concentration of visible metal present. Gear wear is indicated.

Iron	ppm	ASTM D5185(m)	>500	378	223	---
Chromium	ppm	ASTM D5185(m)	>10	3	2	---
Nickel	ppm	ASTM D5185(m)	>10	2	1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)		0	<1	---
Aluminum	ppm	ASTM D5185(m)	>25	4	5	---
Lead	ppm	ASTM D5185(m)	>25	<1	<1	---
Copper	ppm	ASTM D5185(m)	>100	12	7	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	▲ LTMOD	LTMOD	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

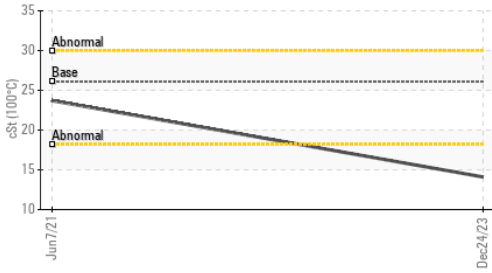
Silicon	ppm	ASTM D5185(m)	>75	18	23	---
Potassium	ppm	ASTM D5185(m)	>20	9	17	---
Water		WC Method	>.2	NEG	NEG	---
Silt	scalar	Visual*	NONE	LIGHT	VLITE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>.2	NEG	NEG	---

FLUID CONDITION

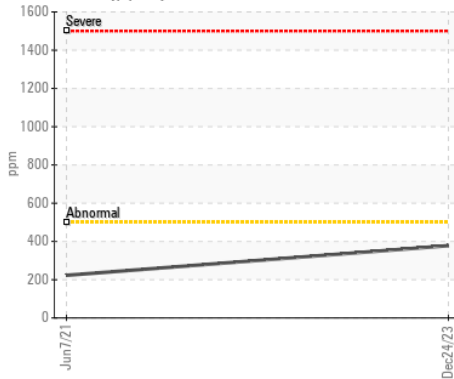
Viscosity of sample indicates oil is within SAE 90 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		3	6	---
Boron	ppm	ASTM D5185(m)	243	▲ 13	218	---
Barium	ppm	ASTM D5185(m)	0	0	6	---
Molybdenum	ppm	ASTM D5185(m)		0	<1	---
Manganese	ppm	ASTM D5185(m)		3	2	---
Magnesium	ppm	ASTM D5185(m)	0	2	<1	---
Calcium	ppm	ASTM D5185(m)	0	▲ 326	18	---
Phosphorus	ppm	ASTM D5185(m)	988	▲ 468	973	---
Zinc	ppm	ASTM D5185(m)	0	▲ 134	13	---
Sulfur	ppm	ASTM D5185(m)	24530	▲ 10633	21933	---
Visc @ 40°C	cSt	ASTM D7279(m)	355.4	▲ 138	310	---
Visc @ 100°C	cSt	ASTM D7279(m)	26.1	▲ 14.1	23.7	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	99	96	---

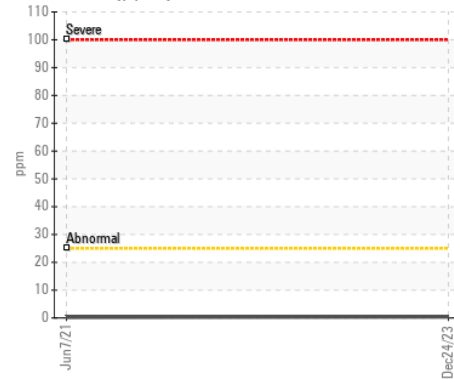
▲ Viscosity @ 100°C



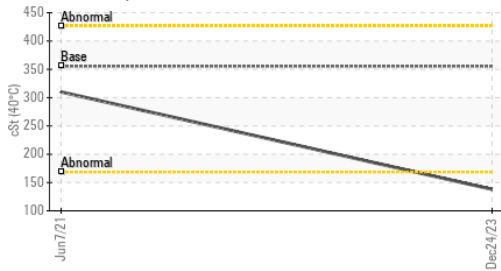
Iron (ppm)



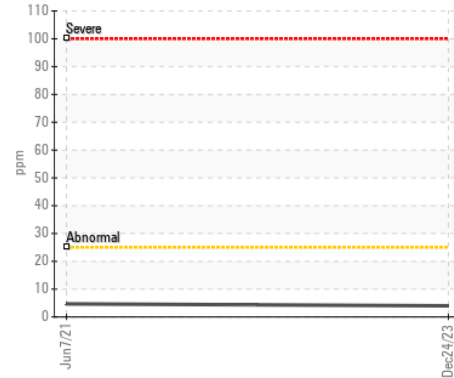
Lead (ppm)



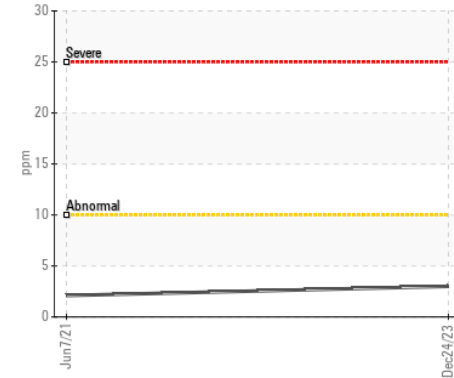
▲ Viscosity @ 40°C



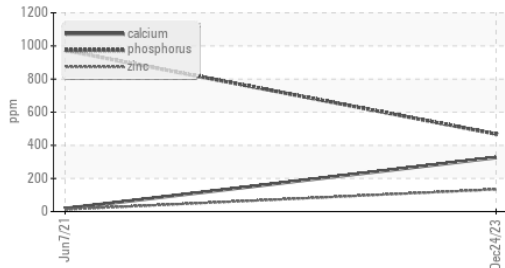
Aluminum (ppm)



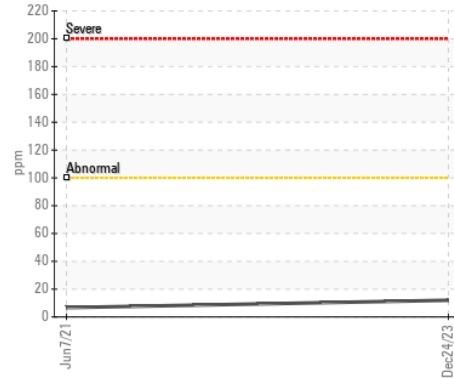
Chromium (ppm)



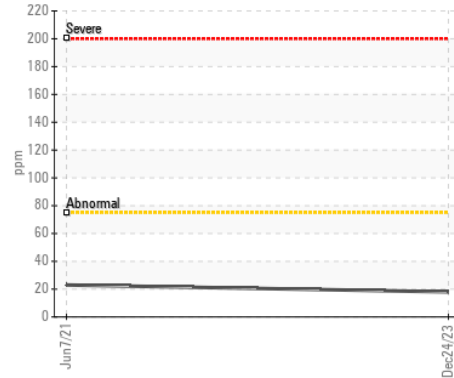
▲ Additives



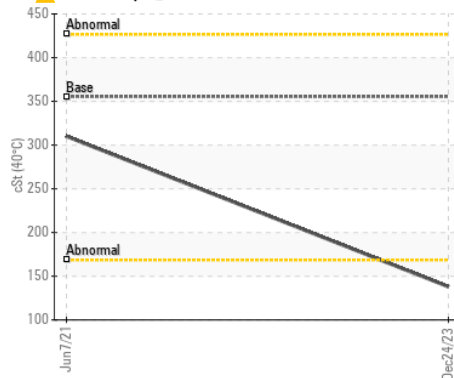
Copper (ppm)



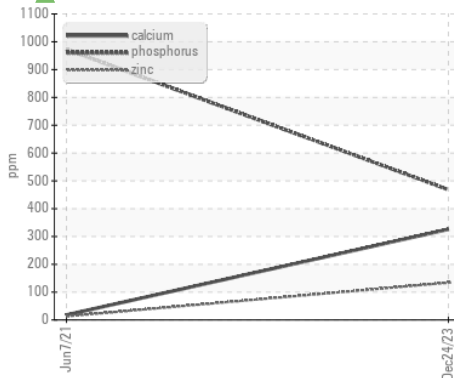
Silicon (ppm)



▲ Viscosity @ 40°C



▲ Additives



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0074941 **Received** : 11 Jan 2024
Lab Number : 02608265 **Diagnosed** : 14 Jan 2024
Unique Number : 5709351 **Diagnostician** : Kevin Marson

Lakeshore Gold Timmins West

Timmins, ON
CA

Test Package : MOB 1 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KV100, VI) **Contact:** Dale Arseneau

darseneau@ca.panamericansilver.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.

T: (705)269-4344

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.

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