

Area
Tractors
Machine Id
UTL004
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0074915	---	---
Sample Date		Client Info		21 Dec 2023	---	---
Machine Age	hrs	Client Info		8363	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	50	---	---
Chromium	ppm	ASTM D5185(m)	>20	1	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	4	---	---
Lead	ppm	ASTM D5185(m)	>40	5	---	---
Copper	ppm	ASTM D5185(m)	>330	26	---	---
Tin	ppm	ASTM D5185(m)	>15	2	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

There is a moderate concentration of dirt present in the oil.

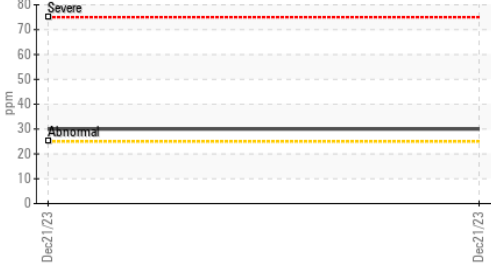
Silicon	ppm	ASTM D5185(m)	>25	▲ 30	---	---
Potassium	ppm	ASTM D5185(m)	>20	4	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	1	---	---
Nitration	Abs/cm	ASTM D7624*	>20	6.4	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.7	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

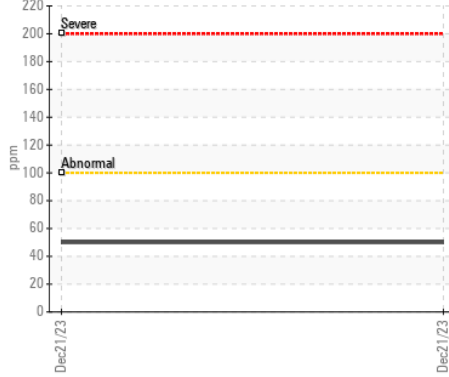
The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		4	---	---
Boron	ppm	ASTM D5185(m)	0	12	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	60	52	---	---
Manganese	ppm	ASTM D5185(m)	0	14	---	---
Magnesium	ppm	ASTM D5185(m)	1010	732	---	---
Calcium	ppm	ASTM D5185(m)	1070	1479	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	956	---	---
Zinc	ppm	ASTM D5185(m)	1270	1083	---	---
Sulfur	ppm	ASTM D5185(m)	2060	2606	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.1	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	105	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.4	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	140	---	---

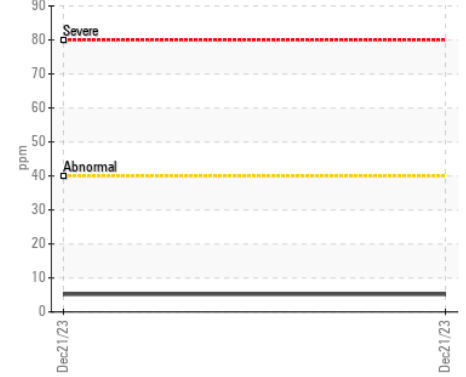
▲ Silicon (ppm)



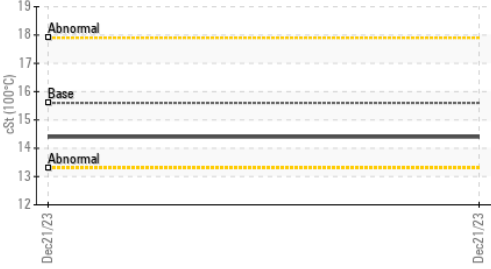
Iron (ppm)



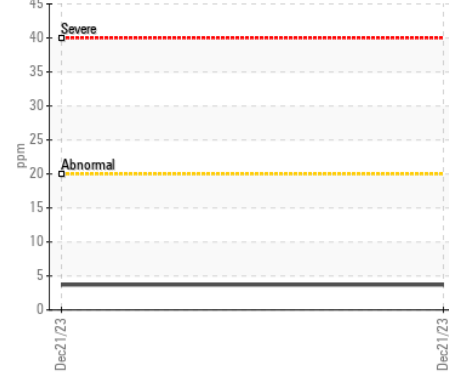
Lead (ppm)



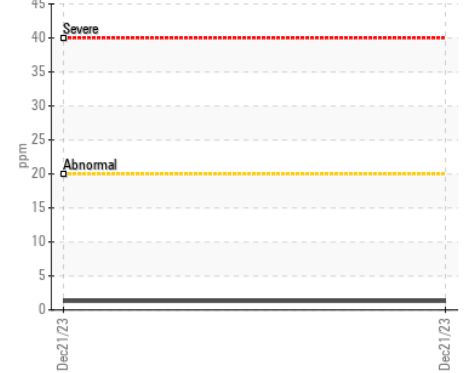
Viscosity @ 100°C



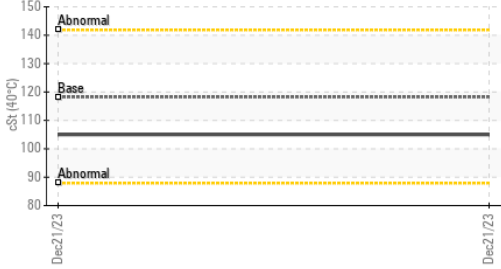
Aluminum (ppm)



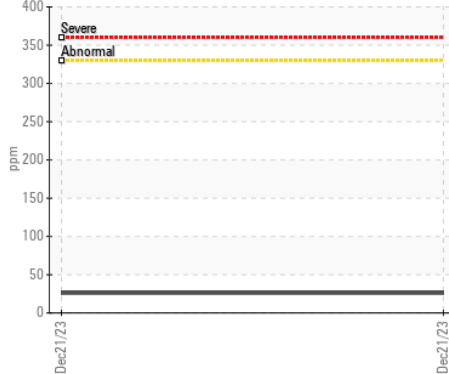
Chromium (ppm)



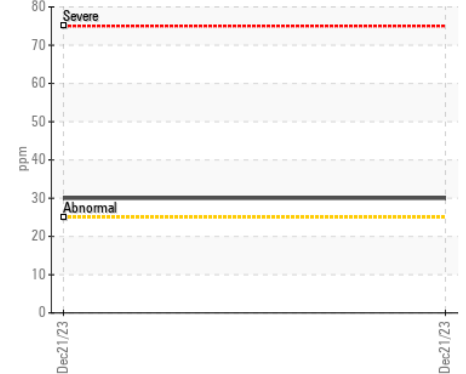
Viscosity @ 40°C



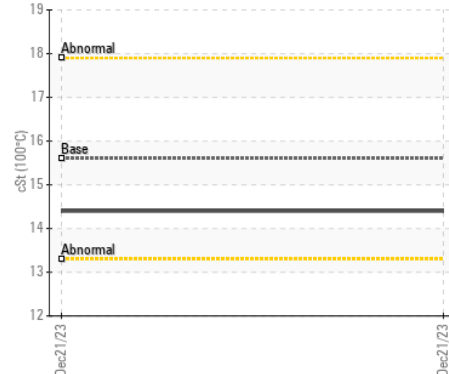
Copper (ppm)



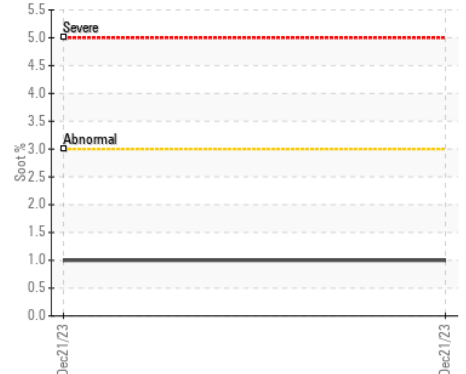
▲ Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0074915 **Received** : 11 Jan 2024
Lab Number : 02608136 **Diagnosed** : 12 Jan 2024
Unique Number : 5709222 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI)

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.