

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id

438340

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0112757	---	---
Sample Date	Client Info	12 Apr 2024	---	---
Machine Age	mls	38440	---	---
Oil Age	mls	0	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	90	---	---
Chromium	ppm ASTM D5185m >20	4	---	---
Nickel	ppm ASTM D5185m >4	0	---	---
Titanium	ppm ASTM D5185m	<1	---	---
Silver	ppm ASTM D5185m >3	<1	---	---
Aluminum	ppm ASTM D5185m >20	46	---	---
Lead	ppm ASTM D5185m >40	8	---	---
Copper	ppm ASTM D5185m >330	43	---	---
Tin	ppm ASTM D5185m >15	4	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	31	---	---
Barium	ppm ASTM D5185m 0	7	---	---
Molybdenum	ppm ASTM D5185m 50	16	---	---
Manganese	ppm ASTM D5185m 0	7	---	---
Magnesium	ppm ASTM D5185m 950	799	---	---
Calcium	ppm ASTM D5185m 1050	1364	---	---
Phosphorus	ppm ASTM D5185m 995	757	---	---
Zinc	ppm ASTM D5185m 1180	896	---	---
Sulfur	ppm ASTM D5185m 2600	3160	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 45	---	---
Sodium	ppm ASTM D5185m	8	---	---
Potassium	ppm ASTM D5185m >20	172	---	---

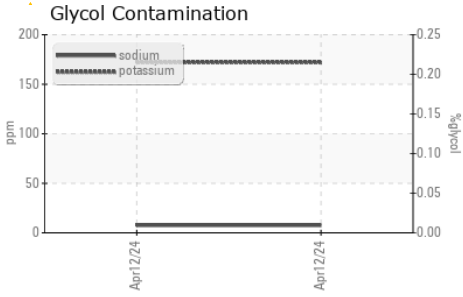
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	---	---
Nitration	Abs/cm *ASTM D7624 >20	11.9	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	25.6	---	---

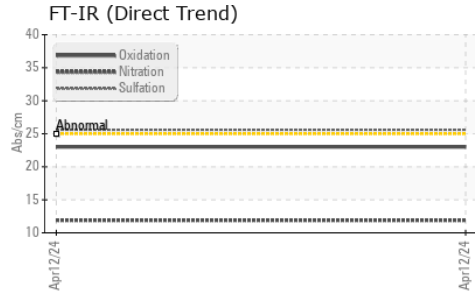
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	23.0	---	---
Base Number (BN)	mg KOH/g ASTM D2896	4.6	---	---

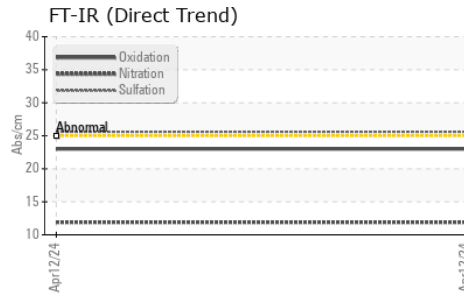
OIL ANALYSIS REPORT



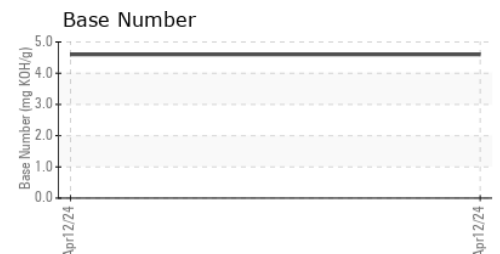
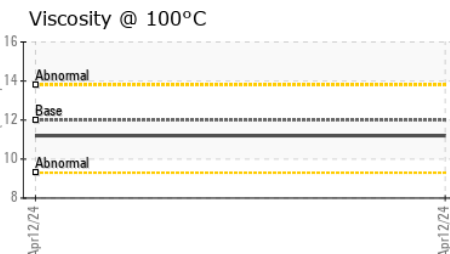
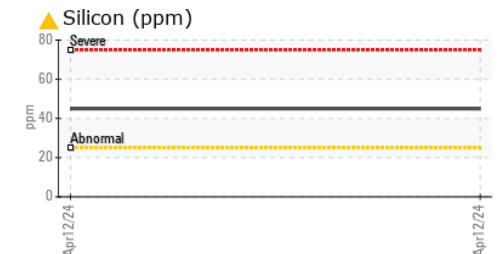
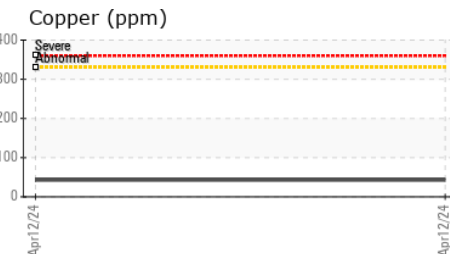
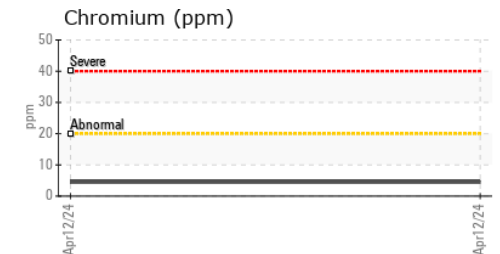
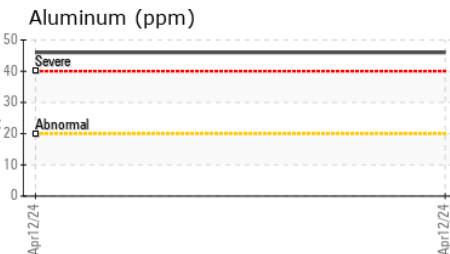
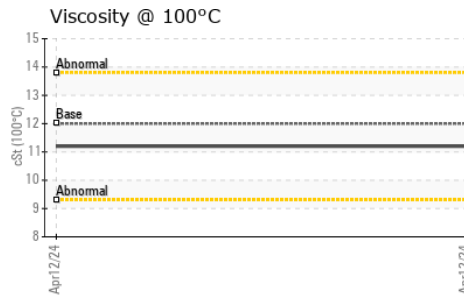
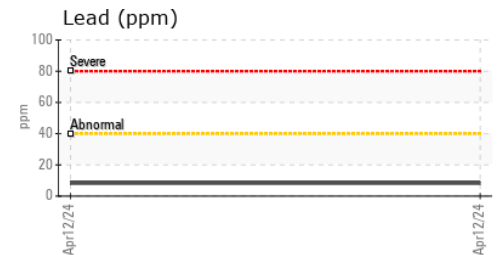
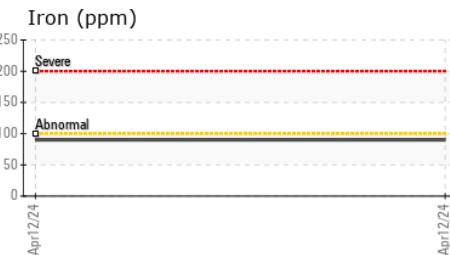
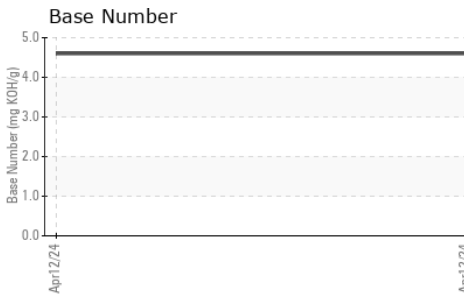
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	---	---
Precipitate	scalar	*Visual	NONE	---	---
Silt	scalar	*Visual	NONE	---	---
Debris	scalar	*Visual	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	---	---
Appearance	scalar	*Visual	NORML	---	---
Odor	scalar	*Visual	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	---	---
Free Water	scalar	*Visual	NEG	---	---



PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	---



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0112757 **Received** : 22 Apr 2024
Lab Number : 06155733 **Tested** : 23 Apr 2024
Unique Number : 10991156 **Diagnosed** : 24 Apr 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

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 361 ROUTE 312
 BREWSTER, NY
 US 10509
 Contact: Robert Beckhusen
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 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)