

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Machine Id
PETERBUILT 20 - CRANK CASE
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (5 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
 All component wear rates are normal.

Contamination
 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. No other contaminants were detected in the oil.

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	PCA0087795	---	---
Sample Date	Client Info	26 Jun 2024	---	---
Machine Age	mls	Client Info	35247	---
Oil Age	mls	Client Info	12000	---
Oil Changed	Client Info	Changed	---	---
Sample Status		NORMAL	---	---

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	38	---	---
Chromium	ppm ASTM D5185m >20	1	---	---
Nickel	ppm ASTM D5185m >4	0	---	---
Titanium	ppm ASTM D5185m	0	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >20	19	---	---
Lead	ppm ASTM D5185m >40	0	---	---
Copper	ppm ASTM D5185m >330	3	---	---
Tin	ppm ASTM D5185m >15	0	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	7	---	---
Barium	ppm ASTM D5185m 0	<1	---	---
Molybdenum	ppm ASTM D5185m 50	61	---	---
Manganese	ppm ASTM D5185m 0	<1	---	---
Magnesium	ppm ASTM D5185m 950	931	---	---
Calcium	ppm ASTM D5185m 1050	1098	---	---
Phosphorus	ppm ASTM D5185m 995	975	---	---
Zinc	ppm ASTM D5185m 1180	1182	---	---
Sulfur	ppm ASTM D5185m 2600	3277	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	---	---
Sodium	ppm ASTM D5185m	4	---	---
Potassium	ppm ASTM D5185m >20	42	---	---

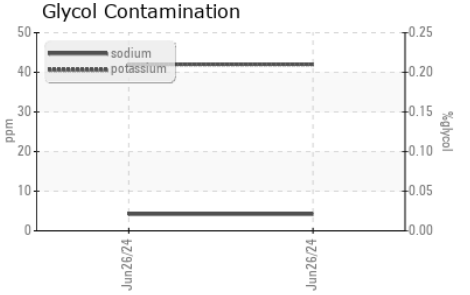
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.4	---	---
Nitration	Abs/cm *ASTM D7624 >20	10.9	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	20.9	---	---

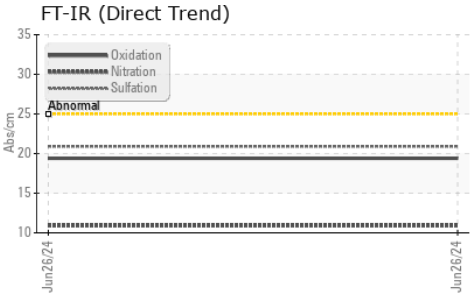
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	19.4	---	---
Base Number (BN)	mg KOH/g ASTM D2896	8.49	---	---

OIL ANALYSIS REPORT

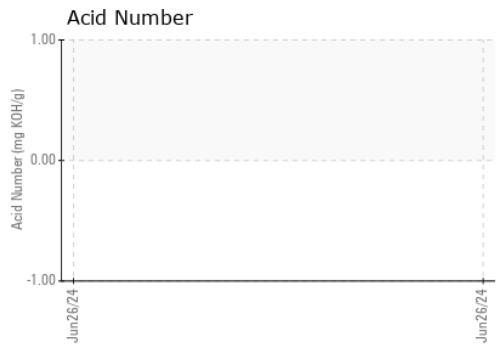
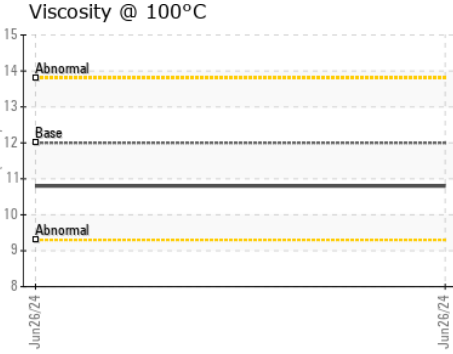
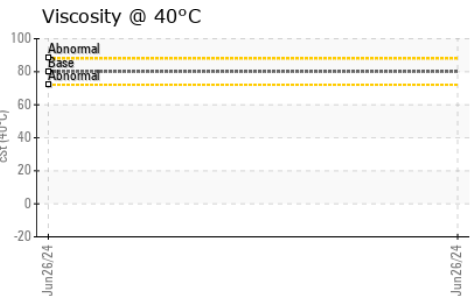
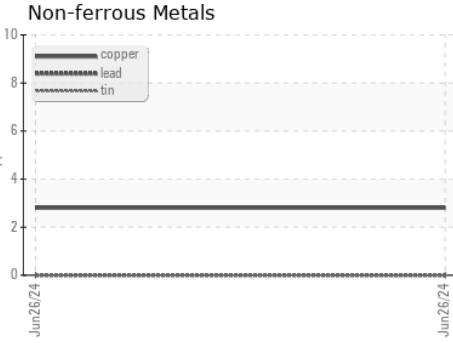
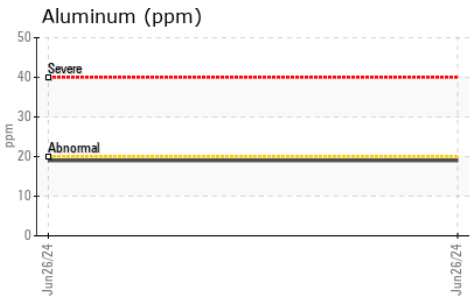
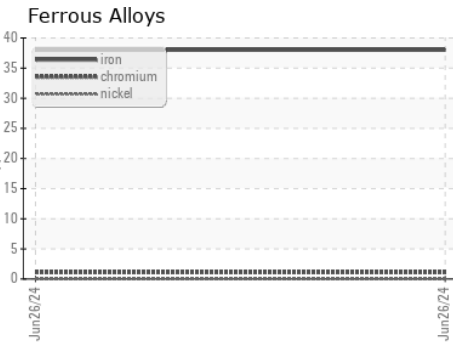
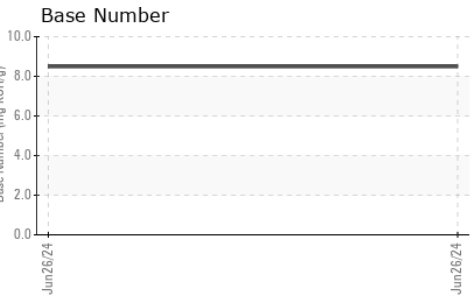


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.8	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0087795 **Received** : 01 Jul 2024
Lab Number : 06225339 **Tested** : 03 Jul 2024
Unique Number : 11103536 **Diagnosed** : 03 Jul 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KV40, TAN Man)

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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)

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