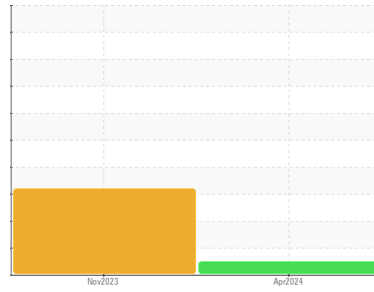


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
2227072
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (36 QTS)

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
 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. There is no indication of any contamination 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		PCA0116285	PCA0102455	---
Sample Date	Client Info		08 Apr 2024	28 Nov 2023	---
Machine Age	mls	Client Info	31512	31512	---
Oil Age	mls	Client Info	31512	0	---
Oil Changed	Client Info		Changed	N/A	---
Sample Status			NORMAL	ABNORMAL	---

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 D5185m >100	57	36	---
Chromium	ppm	ASTM D5185m >20	2	<1	---
Nickel	ppm	ASTM D5185m >4	9	3	---
Titanium	ppm	ASTM D5185m	6	<1	---
Silver	ppm	ASTM D5185m >3	8	▲ 14	---
Aluminum	ppm	ASTM D5185m >20	46	▲ 46	---
Lead	ppm	ASTM D5185m >40	2	1	---
Copper	ppm	ASTM D5185m >330	243	174	---
Tin	ppm	ASTM D5185m >15	6	4	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	<1	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	44	134	---
Barium	ppm	ASTM D5185m 0	<1	<1	---
Molybdenum	ppm	ASTM D5185m 50	105	110	---
Manganese	ppm	ASTM D5185m 0	5	4	---
Magnesium	ppm	ASTM D5185m 950	657	605	---
Calcium	ppm	ASTM D5185m 1050	1403	1409	---
Phosphorus	ppm	ASTM D5185m 995	732	601	---
Zinc	ppm	ASTM D5185m 1180	810	674	---
Sulfur	ppm	ASTM D5185m 2600	2179	1891	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	62	▲ 78	---
Sodium	ppm	ASTM D5185m	4	6	---
Potassium	ppm	ASTM D5185m >20	126	135	---

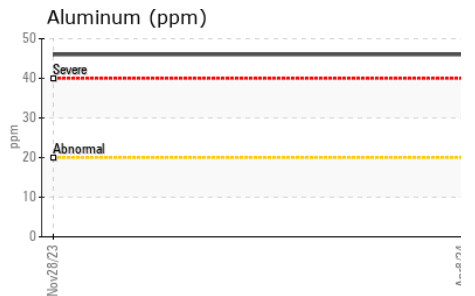
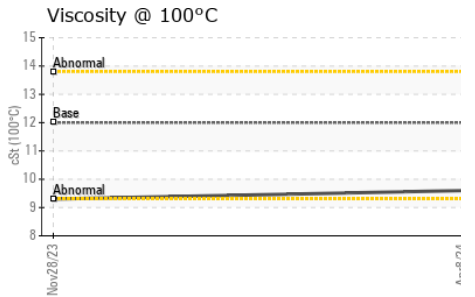
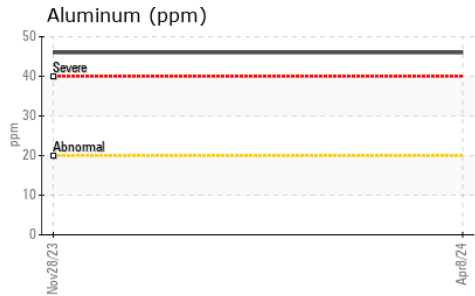
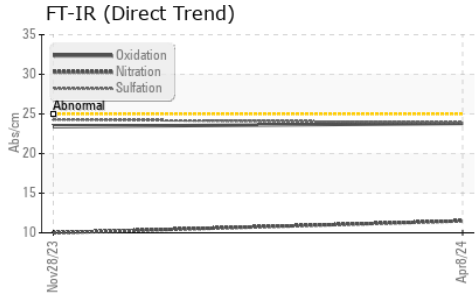
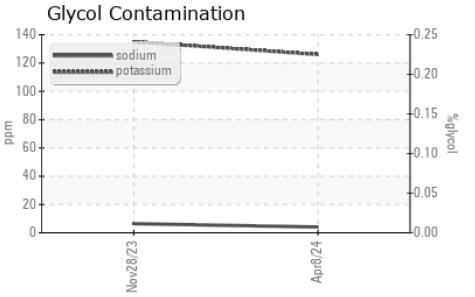
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	11.5	10.0	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.9	24.3	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.8	23.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	5.5	6.9	---

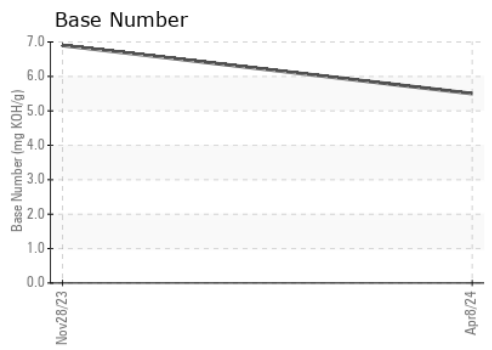
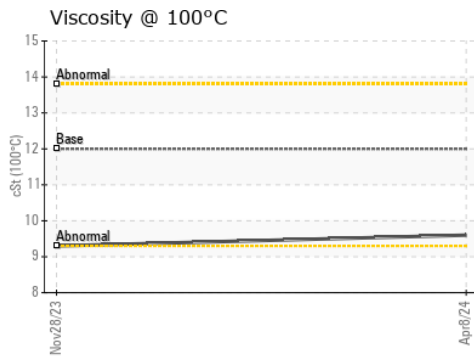
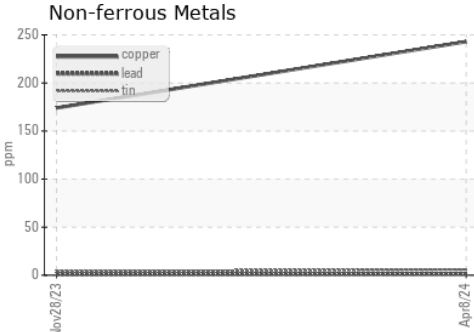
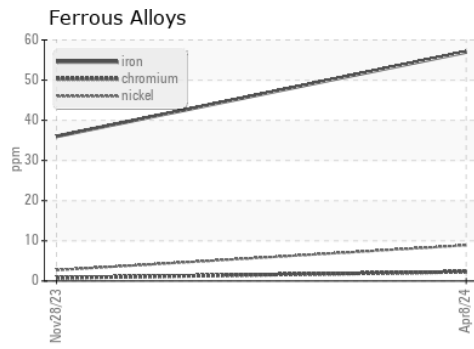
OIL ANALYSIS REPORT



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	9.6	9.3	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0116285 **Received** : 12 Apr 2024
Lab Number : **06146882** **Tested** : 15 Apr 2024
Unique Number : 10976960 **Diagnosed** : 15 Apr 2024 - Sean Felton
Test Package : FLEET

PERDUE FARMS - SALISBURY
 7036 ZION CHURCH ROAD
 SALISBURY, MD
 US 21802
 Contact: RICHARD O'NEAL
 richard.oneal@perdue.com
 T: (410)543-3628
 F: (410)341-2164

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)