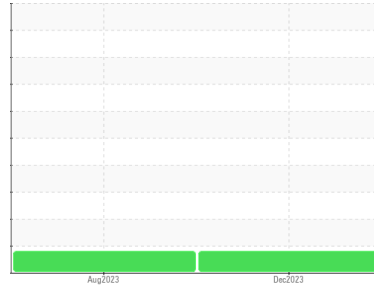


OIL ANALYSIS REPORT

Sample Rating Trend

WEAR


Area
(55224Z) Walgreens - Tractor
 Machine Id
[Walgreens - Tractor] 136A63356
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)



DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
 The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0105918	PCA0091547	---
Sample Date	Client Info		14 Dec 2023	14 Aug 2023	---
Machine Age	mls	Client Info	77983	51282	---
Oil Age	mls	Client Info	51282	51282	---
Oil Changed	Client Info		N/A	Changed	---
Sample Status			ABNORMAL	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	>80	27	62	---
Chromium	ppm	ASTM D5185m	>5	4	6	---
Nickel	ppm	ASTM D5185m	>2	<1	1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>30	47	99	---
Lead	ppm	ASTM D5185m	>30	5	0	---
Copper	ppm	ASTM D5185m	>150	425	226	---
Tin	ppm	ASTM D5185m	>5	2	5	---
Vanadium	ppm	ASTM D5185m		<1	0	---
Cadmium	ppm	ASTM D5185m		<1	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	6	25	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	50	58	39	---
Manganese	ppm	ASTM D5185m	0	2	4	---
Magnesium	ppm	ASTM D5185m	950	1006	553	---
Calcium	ppm	ASTM D5185m	1050	1306	1680	---
Phosphorus	ppm	ASTM D5185m	995	1080	698	---
Zinc	ppm	ASTM D5185m	1180	1303	878	---
Sulfur	ppm	ASTM D5185m	2600	2776	2235	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	5	8	---
Sodium	ppm	ASTM D5185m		5	6	---
Potassium	ppm	ASTM D5185m	>20	109	264	---

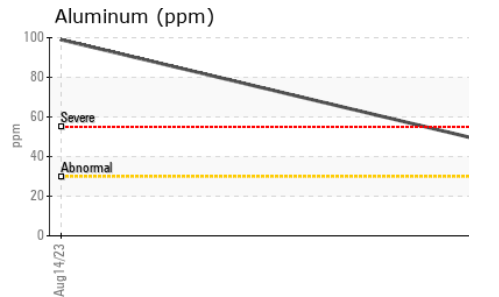
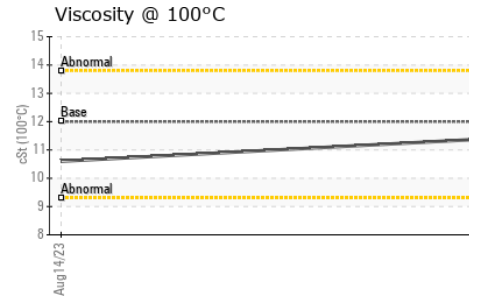
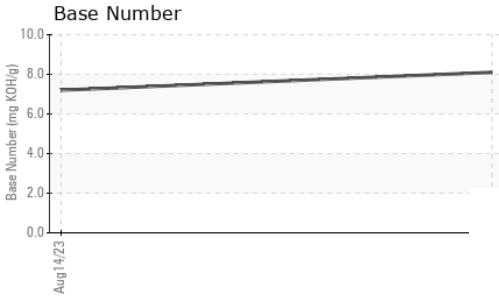
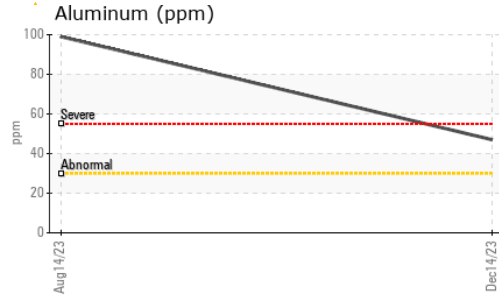
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.5	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	7.9	11.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	23.5	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	24.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.1	7.2	---

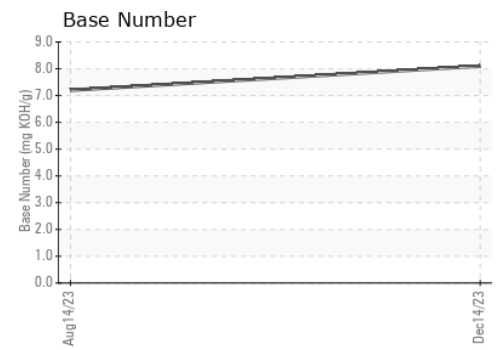
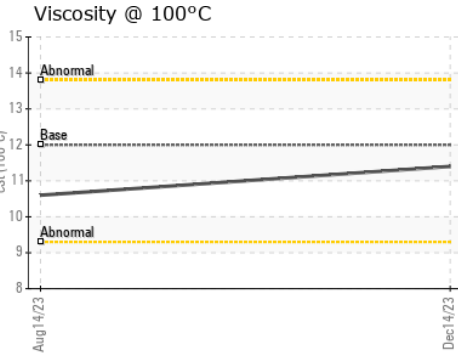
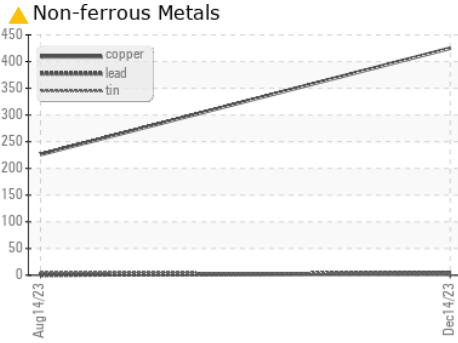
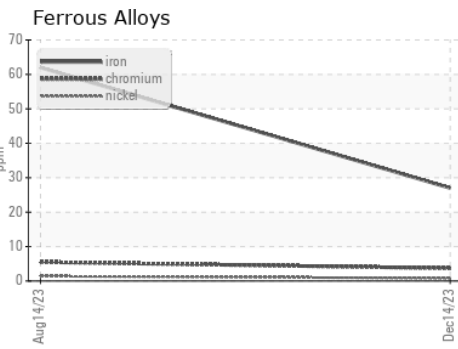
OIL ANALYSIS REPORT



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	11.4	10.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0105918 **Recieved** : 22 Dec 2023
Lab Number : **06043939** **Diagnosed** : 27 Dec 2023
Unique Number : 10804547 **Diagnostician** : Jonathan Hester
Test Package : FLEET

Transervice - Shop 1361 - Berkeley-Windsor
 4400 State Road 19
 Windsor, WI
 US 53598
 Contact: Mike Hurda
 mhurda@transervice.com
 T: (608)846-2726
 F: (608)846-0389

Certificate L2367
 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)