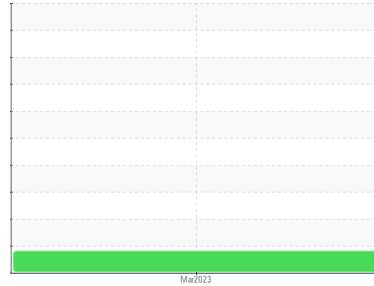




OIL ANALYSIS REPORT

Sample Rating Trend



SOOT



Machine Id
91034

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is an abnormal amount of solids and carbon present 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		SBP0003657	---	---
Sample Date	Client Info		14 Mar 2023	---	---
Machine Age	mls	Client Info	522368	---	---
Oil Age	mls	Client Info	20249	---	---
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 >80	67	---	---
Chromium	ppm	ASTM D5185m >5	3	---	---
Nickel	ppm	ASTM D5185m >2	1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	<1	---	---
Aluminum	ppm	ASTM D5185m >30	17	---	---
Lead	ppm	ASTM D5185m >30	<1	---	---
Copper	ppm	ASTM D5185m >150	22	---	---
Tin	ppm	ASTM D5185m >5	1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	16	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 60	58	---	---
Manganese	ppm	ASTM D5185m 0	1	---	---
Magnesium	ppm	ASTM D5185m 1010	816	---	---
Calcium	ppm	ASTM D5185m 1070	1348	---	---
Phosphorus	ppm	ASTM D5185m 1150	928	---	---
Zinc	ppm	ASTM D5185m 1270	1209	---	---
Sulfur	ppm	ASTM D5185m 2060	2314	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	11	---	---
Sodium	ppm	ASTM D5185m	4	---	---
Potassium	ppm	ASTM D5185m >20	16	---	---

INFRA-RED

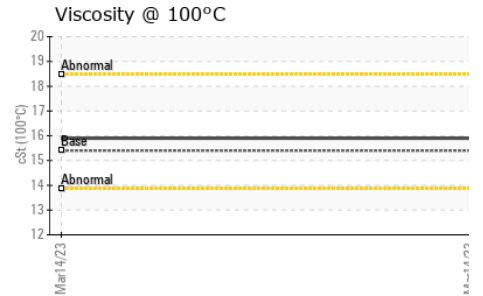
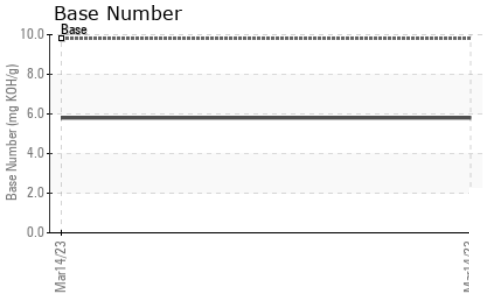
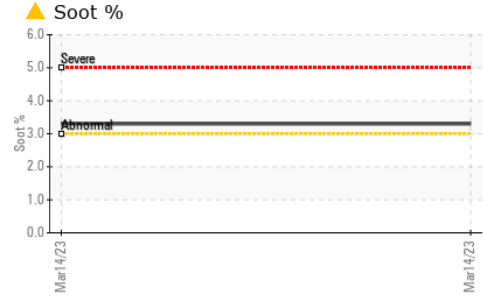
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	▲ 3.3	---	---
Nitration	Abs/cm	*ASTM D7624 >20	15.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	31.5	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	27.3	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	5.8	---	---



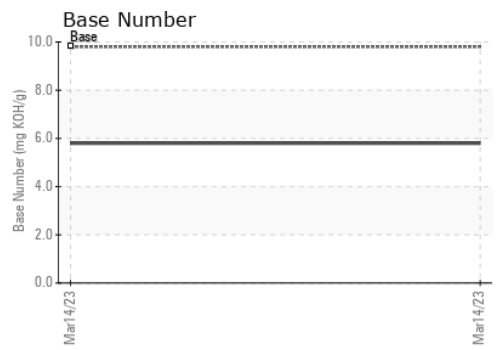
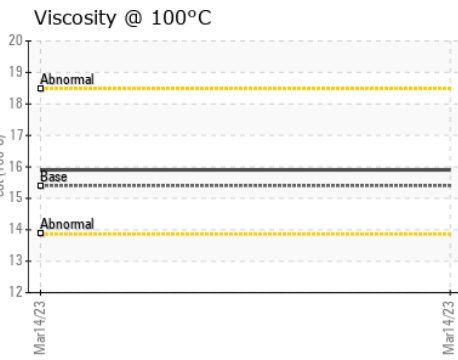
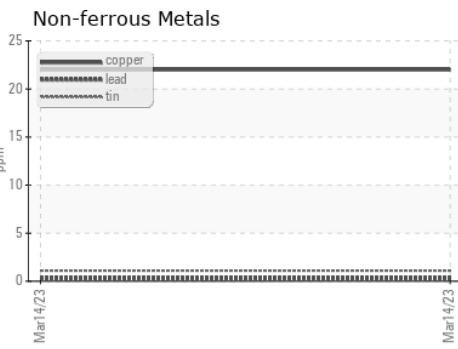
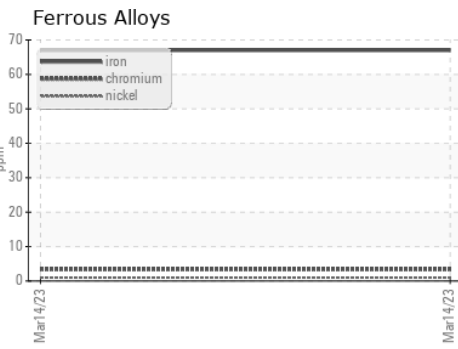
OIL ANALYSIS REPORT



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	15.4	15.9	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0003657 **Received** : 22 Mar 2023
Lab Number : 05799136 **Tested** : 25 Mar 2023
Unique Number : 10388820 **Diagnosed** : 25 Mar 2023 - Don Baldrige
Test Package : FLEET

Sapp Bros. Fleet - West Point Location
 660 S Main St.
 West Point, NE
 US 68788
 Contact: DOUG EDWARDS
 dedwards@sappbros.net
 T: (402)342-5485
 F:

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)