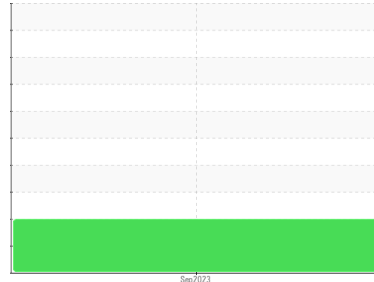


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
500-204
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

▲ Wear

Valve wear is indicated.

▲ Contamination

There is a moderate amount of fuel present in the oil.

▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0106859	---	---
Sample Date	Client Info		24 Sep 2023	---	---
Machine Age	hrs	Client Info	1145	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	45	---	---
Chromium	ppm	ASTM D5185m >20	2	---	---
Nickel	ppm	ASTM D5185m >4	▲ 22	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >20	7	---	---
Lead	ppm	ASTM D5185m >40	15	---	---
Copper	ppm	ASTM D5185m >330	48	---	---
Tin	ppm	ASTM D5185m >15	5	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 60	69	---	---
Manganese	ppm	ASTM D5185m 0	2	---	---
Magnesium	ppm	ASTM D5185m 1010	898	---	---
Calcium	ppm	ASTM D5185m 1070	1040	---	---
Phosphorus	ppm	ASTM D5185m 1150	897	---	---
Zinc	ppm	ASTM D5185m 1270	1187	---	---
Sulfur	ppm	ASTM D5185m 2060	2618	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	---	---
Sodium	ppm	ASTM D5185m	3	---	---
Potassium	ppm	ASTM D5185m >20	22	---	---
Fuel	%	ASTM D3524 >5	▲ 7.1	---	---

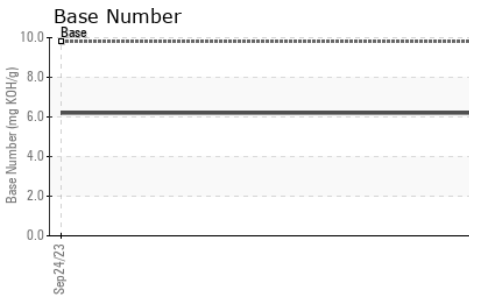
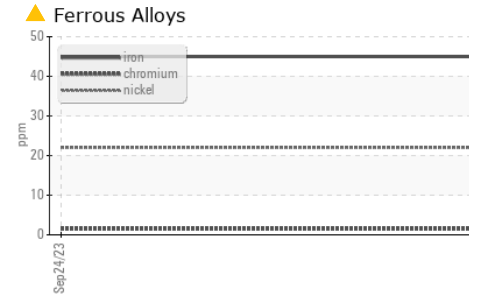
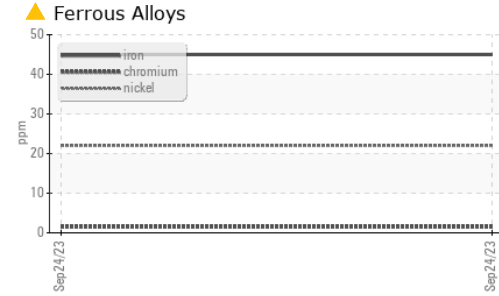
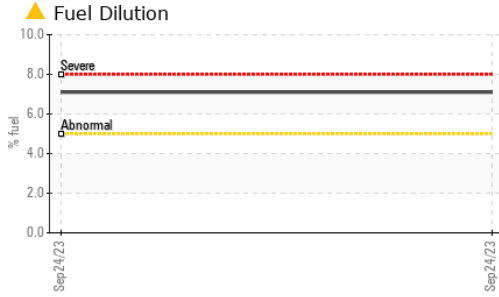
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.7	---	---
Nitration	Abs/cm	*ASTM D7624 >20	12.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.3	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.2	---	---

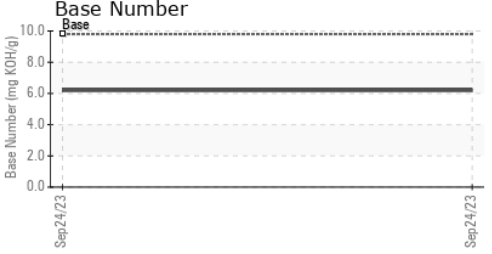
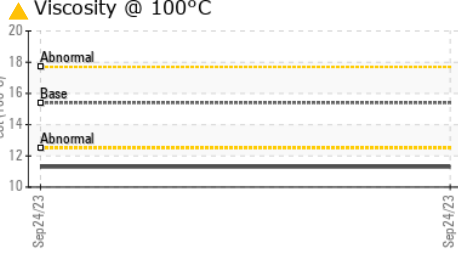
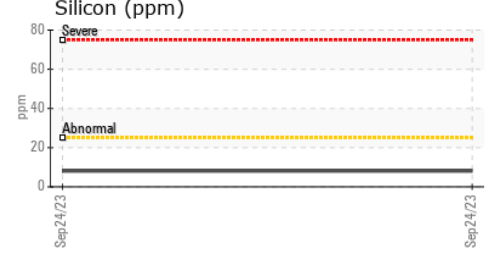
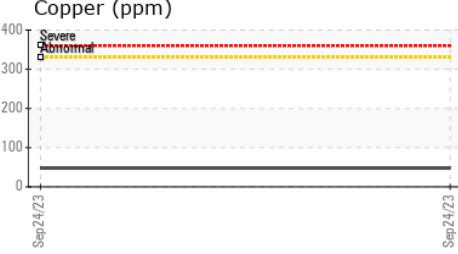
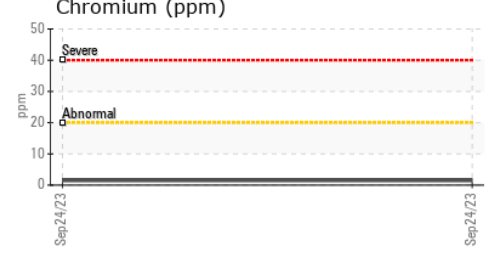
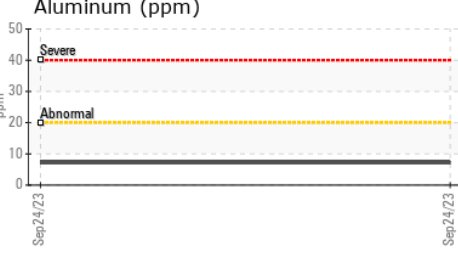
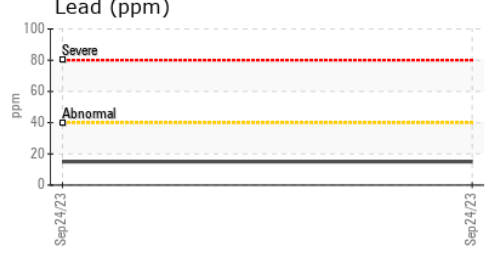
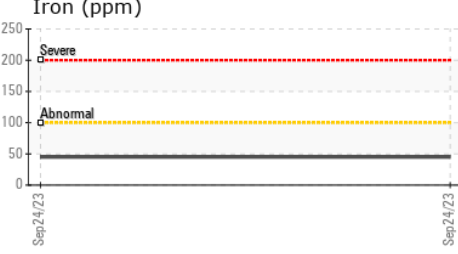
OIL ANALYSIS REPORT



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 15.4	▲ 11.3	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106859 **Received** : 02 Oct 2023
Lab Number : **05965995** **Diagnosed** : 04 Oct 2023
Unique Number : 10672546 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

GE MARSHALL EXCAVATION
 1351 JOLIET RD
 VALPARAISO, IN
 US 46385
 Contact: MARK STEFFEL
 mark.steffel@gemarshall.com

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)