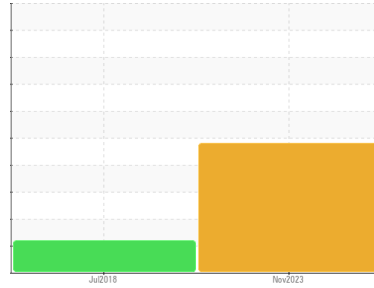




Machine Id
SPARTAN 25056
Component
Front Diesel Engine
Fluid
CASTROL 15W40 (22 LTR)



DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
Test for glycol is positive. There is a light concentration of glycol present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0083783	AP104487	---
Sample Date	Client Info			22 Nov 2023	05 Jul 2018	---
Machine Age	kms	Client Info		177465	128137	---
Oil Age	kms	Client Info		0	0	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	---
Water	WC Method	>0.2		NEG	NEG	---

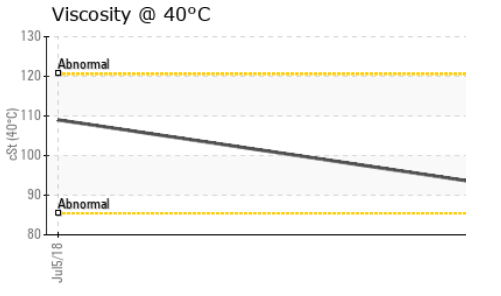
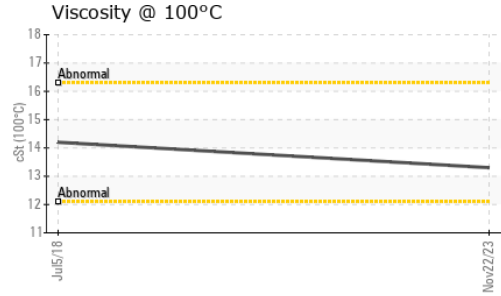
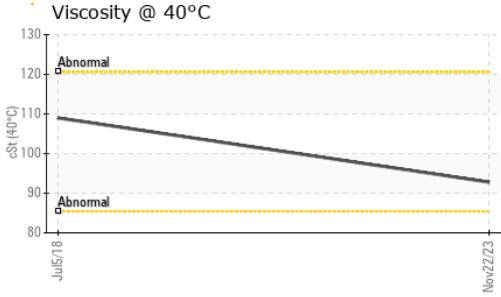
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	39	52	---
Chromium	ppm	ASTM D5185(m)	>5	1	1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	0	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	<1	<1	---
Aluminum	ppm	ASTM D5185(m)	>15	3	4	---
Lead	ppm	ASTM D5185(m)	>25	2	11	---
Copper	ppm	ASTM D5185(m)	>100	3	270	---
Tin	ppm	ASTM D5185(m)	>4	<1	<1	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		4	2	---
Barium	ppm	ASTM D5185(m)		<1	0	---
Molybdenum	ppm	ASTM D5185(m)		60	63	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)		899	916	---
Calcium	ppm	ASTM D5185(m)		988	1164	---
Phosphorus	ppm	ASTM D5185(m)		945	990	---
Zinc	ppm	ASTM D5185(m)		1110	1217	---
Sulfur	ppm	ASTM D5185(m)		2342	2220	---
Lithium	ppm	ASTM D5185(m)		<1	0	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	9	15	---
Sodium	ppm	ASTM D5185(m)	>406	▲ 45	61	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 8	▲ 42	---
Glycol	%	ASTM D7922*		▲ 0.022	0.0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	1	1.7	---
Nitration	Abs/cm	ASTM D7624*	>20	11.2	12.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.4	27.6	---

OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	25.5	23.0	---

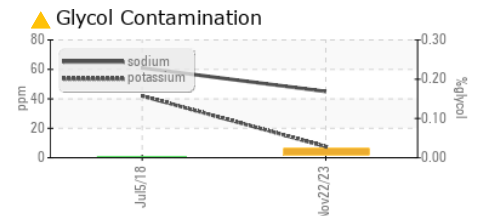
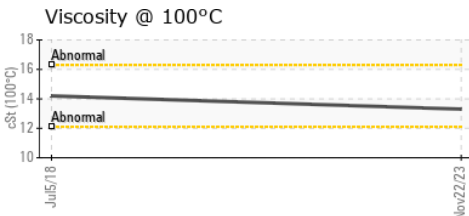
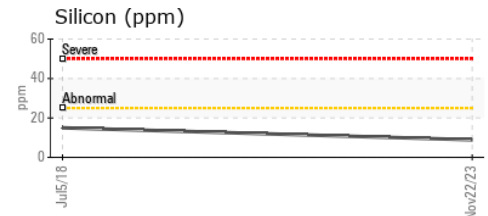
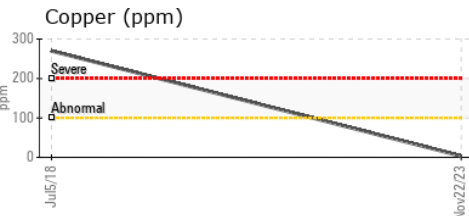
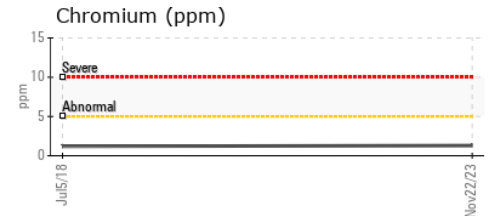
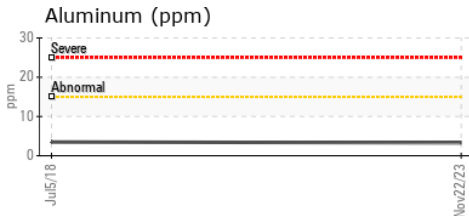
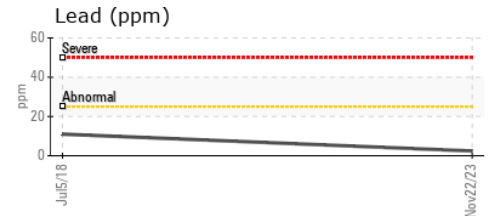
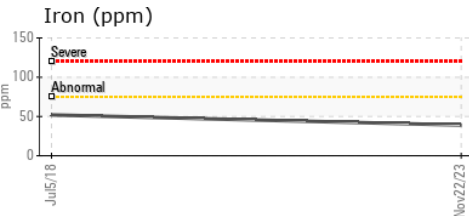
VISUAL

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	NEG	---
Free Water	scalar Visual*		NEG	NEG	---

FLUID PROPERTIES

method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	92.8	109	---
Visc @ 100°C	cSt ASTM D7279(m)	13.3	14.2	---
Viscosity Index (VI)	Scale ASTM D2270*	143	131	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083783 **Received** : 15 Dec 2023
Lab Number : 02603440 **Diagnosed** : 18 Dec 2023
Unique Number : 5696525 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, KV40, VI, Visual)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.