

Machine Id  
**SPARTAN 28017/S143**  
Component  
**Right Diesel Engine**  
Fluid  
**CASTROL HYPURON 15W40 (40 LTR)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is no indication of any contamination in the oil.

**Fluid Condition**

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PC0075209</b>	AP103304	---
Sample Date	Client Info			<b>28 Oct 2023</b>	03 Feb 2017	---
Machine Age	kms	Client Info		<b>0</b>	102073	---
Oil Age	kms	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	0.0	---

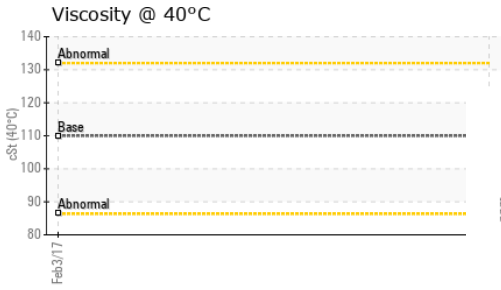
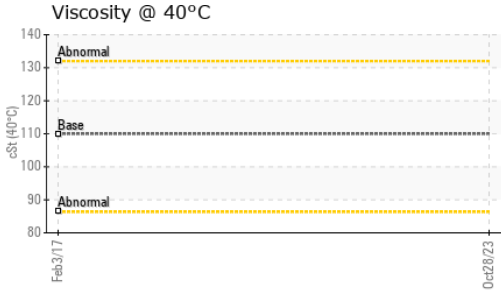
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>165	<b>18</b>	23	---
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	---
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	5	---
Lead	ppm	ASTM D5185(m)	>150	<b>6</b>	3	---
Copper	ppm	ASTM D5185(m)	>90	<b>&lt;1</b>	19	---
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	2	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>3</b>	42	---
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Molybdenum	ppm	ASTM D5185(m)		<b>60</b>	<1	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185(m)		<b>931</b>	10	---
Calcium	ppm	ASTM D5185(m)		<b>1014</b>	2459	---
Phosphorus	ppm	ASTM D5185(m)		<b>960</b>	962	---
Zinc	ppm	ASTM D5185(m)		<b>1153</b>	1231	---
Sulfur	ppm	ASTM D5185(m)		<b>2416</b>	3295	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>35	<b>5</b>	5	---
Sodium	ppm	ASTM D5185(m)		<b>2</b>	3	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	11	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>7.5	<b>1.7</b>	1.5	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.3</b>	11.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.6</b>	27.8	---

# OIL ANALYSIS REPORT

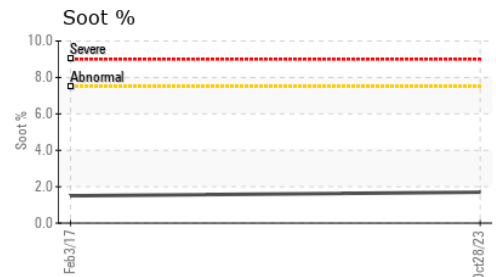
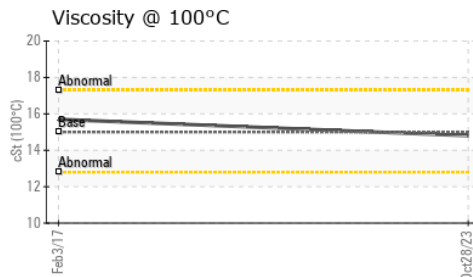
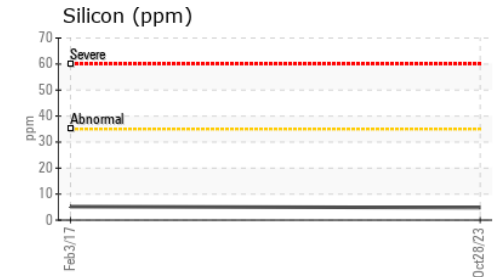
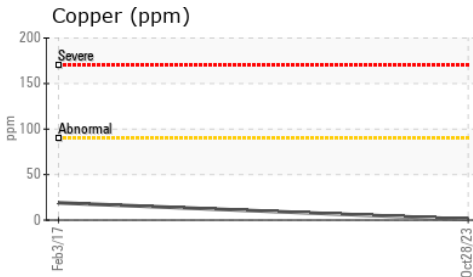
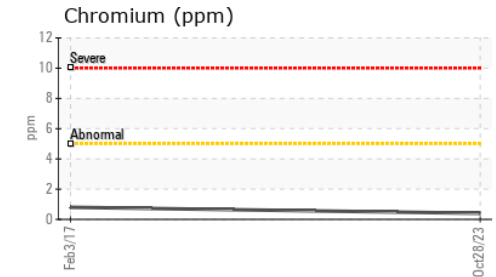
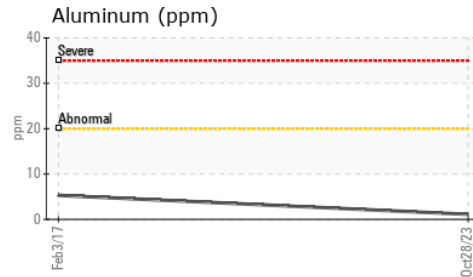
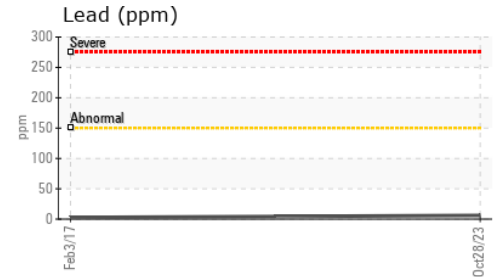
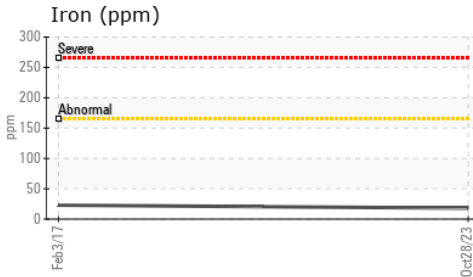


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.1</b>	20.7	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---
Free Water	scalar	Visual*		<b>NEG</b>	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	110	<b>110</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	<b>14.8</b>	15.7	---
Viscosity Index (VI)	Scale	ASTM D2270*	140	<b>139</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0075209 **Received** : 15 Dec 2023  
**Lab Number** : **02603433** **Diagnosed** : 15 Dec 2023  
**Unique Number** : 5696518 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

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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.