



Machine Id  
**KMC PUMPER #27**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

**Wear**

Metal levels are typical for a new component breaking in.

**Contamination**

Light fuel dilution occurring. No other contaminants were detected 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>PC0078191</b>	---	---
Sample Date	Client Info	<b>21 Aug 2023</b>	---	---
Machine Age	kms	Client Info	<b>6817</b>	---
Oil Age	kms	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

**WEAR METALS** method limit/base current history1 history2

Iron	ppm	ASTM D5185(m)	>100	<b>48</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>13</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>6</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>213</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>1</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)	250	<b>119</b>	---	---
Barium	ppm	ASTM D5185(m)	10	<b>1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>9</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>3</b>	---	---
Magnesium	ppm	ASTM D5185(m)	450	<b>136</b>	---	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1994</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>977</b>	---	---
Zinc	ppm	ASTM D5185(m)	1350	<b>1104</b>	---	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2786</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>25	<b>14</b>	---	---
Sodium	ppm	ASTM D5185(m)	>158	<b>4</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>64</b>	---	---
Fuel	%	ASTM D7593*	>5	<b>1.9</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---

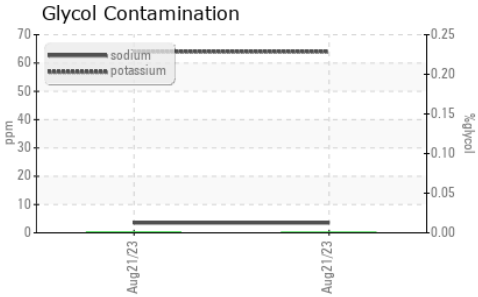
**INFRA-RED** method limit/base current history1 history2

Soot %	%	ASTM D7844*	>3	<b>0.2</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.5</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.9</b>	---	---

**FLUID DEGRADATION** method limit/base current history1 history2

Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.9</b>	---	---
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# OIL ANALYSIS REPORT

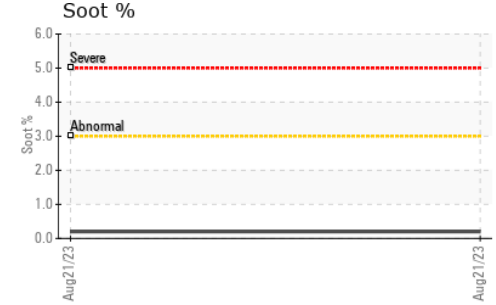
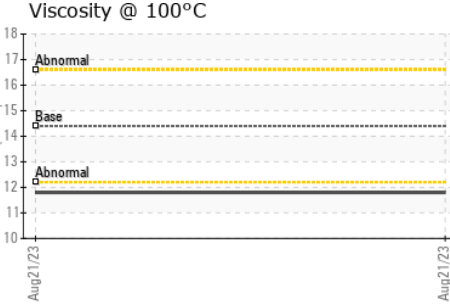
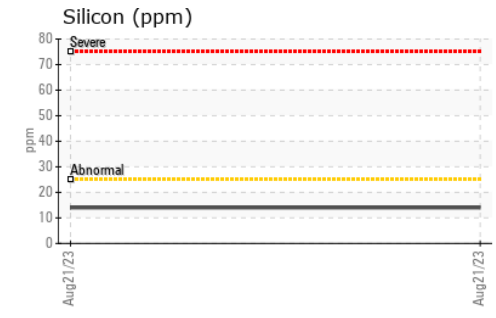
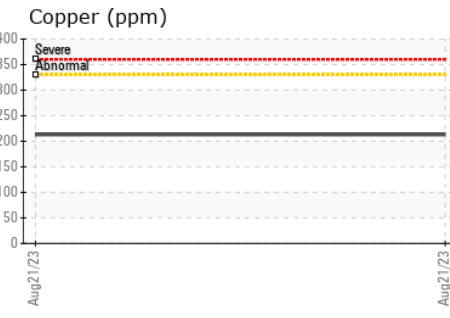
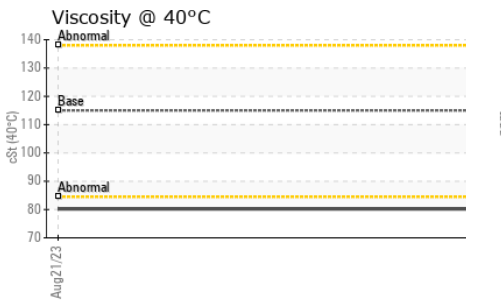
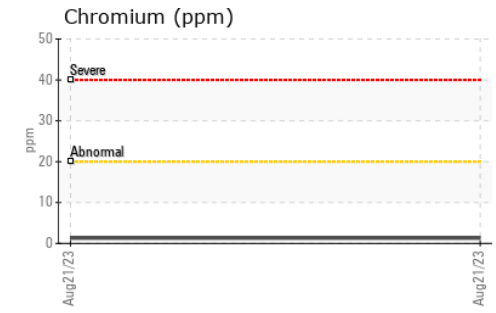
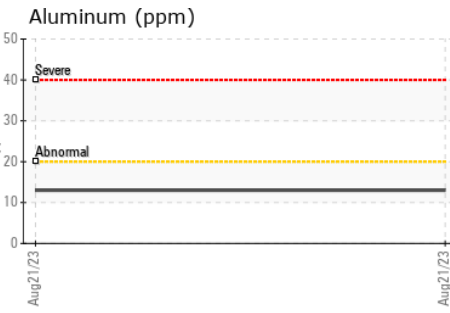
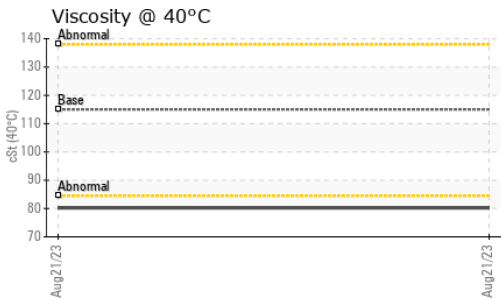
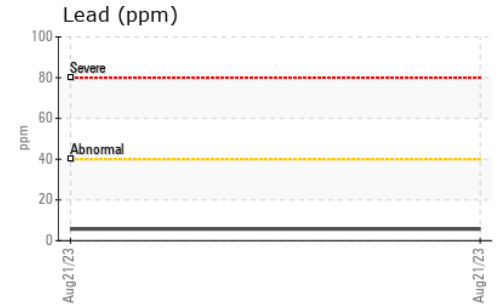
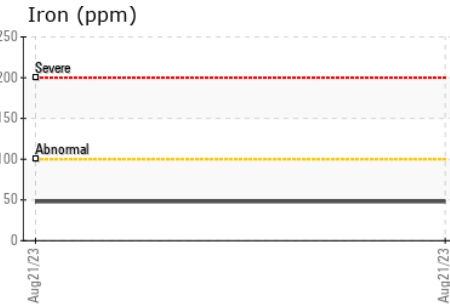
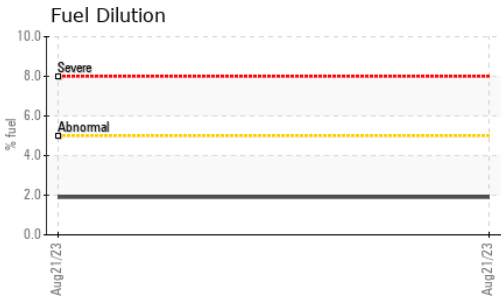


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	115	<b>80.2</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>11.8</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	<b>140</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0078191  
**Lab Number** : 02577686  
**Unique Number** : 5630746  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, VI)  
**Received** : 23 Aug 2023  
**Diagnosed** : 24 Aug 2023  
**Diagnostician** : Wes Davis

**HAMILTON FIRE DEPT**  
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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.