



# OIL ANALYSIS REPORT

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>ABNORMAL</b>

Area

**TUMBLE**

Machine Id

**B29133 - WOLF KING (S/N 53566)**

Component

**Gearbox**

Fluid

**PETRO CANADA PURITY FG EP GEAR OIL 220 (--- GAL)**

## RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count. Please note that there was too much water present in the oil to perform a viscosity test.

## WEAR

Bearing and/or gear wear is indicated.

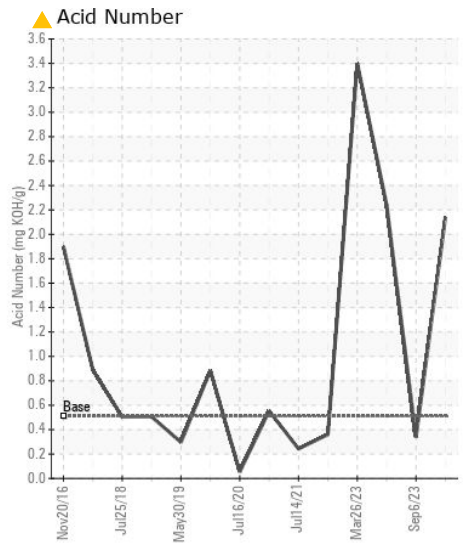
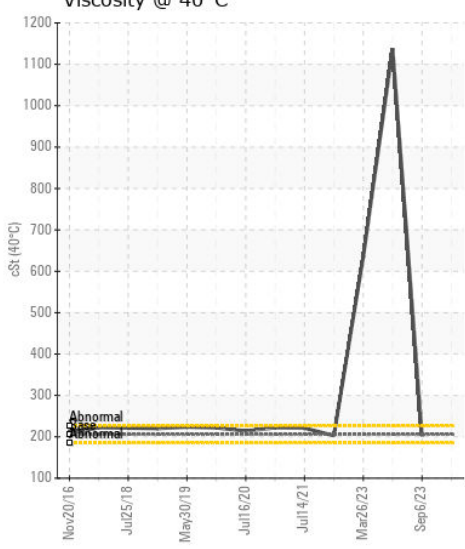
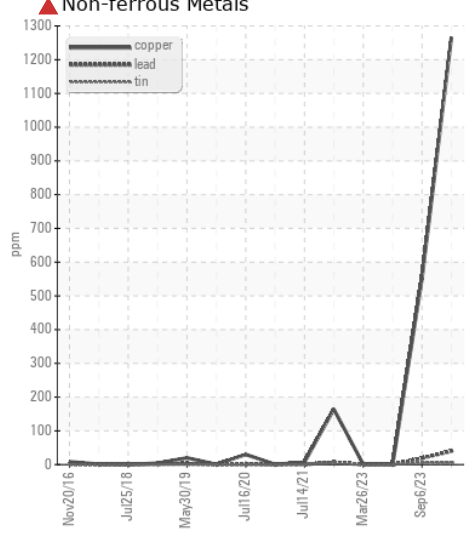
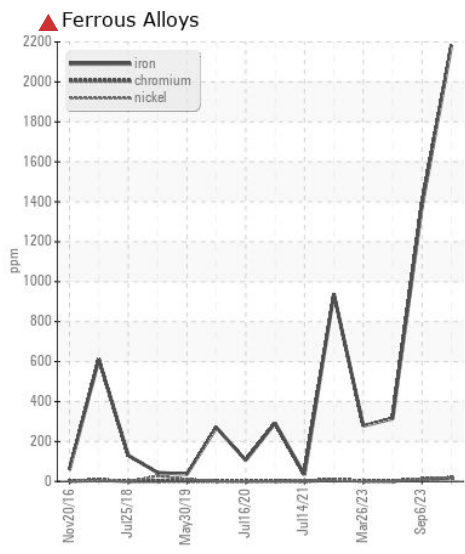
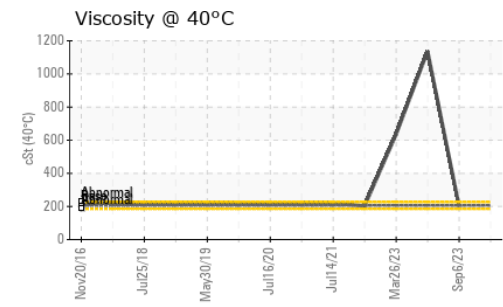
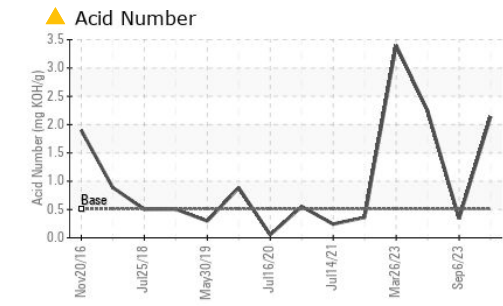
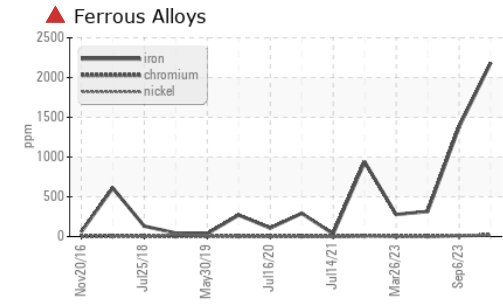
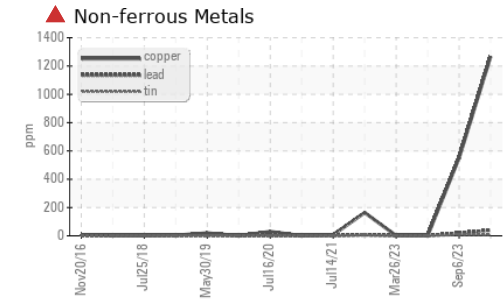
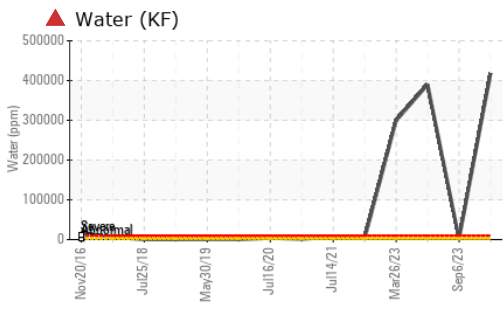
## CONTAMINATION

There is a high concentration of water present in the oil.

## FLUID CONDITION

The AN level is at the top-end of the recommended limit. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0896723</b>	WC0840987	WC0847494
Sample Date		Client Info		<b>20 Feb 2024</b>	06 Sep 2023	06 Sep 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>200	<b>▲ 2183</b>	▲ 315	▲ 1378
Chromium	ppm	ASTM D5185m	>15	<b>▲ 17</b>	2	11
Nickel	ppm	ASTM D5185m	>15	<b>17</b>	<1	11
Titanium	ppm	ASTM D5185m		<b>4</b>	0	4
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>19</b>	0	10
Lead	ppm	ASTM D5185m	>100	<b>40</b>	<1	19
Copper	ppm	ASTM D5185m	>200	<b>▲ 1266</b>	<1	▲ 551
Tin	ppm	ASTM D5185m	>25	<b>5</b>	<1	5
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	<b>41</b>	10	36
Potassium	ppm	ASTM D5185m	>20	<b>121</b>	2	116
Water	%	ASTM D6304	>0.2	<b>▲ 41.8</b>	0.173	▲ 39.0
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 418000</b>	1730	▲ 390000
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>▲ 0.2%</b>	0.2%	▲ 0.2%
Sodium	ppm	ASTM D5185m		<b>77</b>	4	71
Boron	ppm	ASTM D5185m		<b>10</b>	0	5
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	0	1
Manganese	ppm	ASTM D5185m		<b>32</b>	3	● 21
Magnesium	ppm	ASTM D5185m		<b>6</b>	2	4
Calcium	ppm	ASTM D5185m		<b>4</b>	11	6
Phosphorus	ppm	ASTM D5185m		<b>128</b>	218	● 137
Zinc	ppm	ASTM D5185m		<b>1109</b>	0	● 435
Sulfur	ppm	ASTM D5185m		<b>604</b>	868	● 698
Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	<b>▲ 2.14</b>	0.34	▲ 2.24
Visc @ 40°C	cSt	ASTM D445	205.8	<b>---</b>	202.0	▲ 1137



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0896723  
**Lab Number** : 06104321  
**Unique Number** : 10902551  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**Received** : 29 Feb 2024  
**Tested** : 04 Mar 2024  
**Diagnosed** : 04 Mar 2024 - Jonathan Hester

**OSCEOLA FOODS (HORMEL)**  
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 OSCEOLA, IA  
 US 50213  
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 T: (641)342-8043  
 F: (641)342-8047

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)