



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



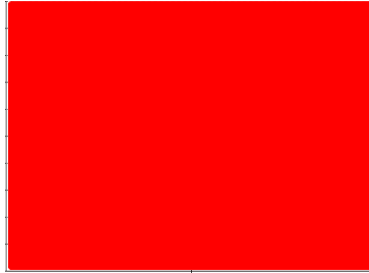
Machine Id
S185

Component

Rear Differential

Fluid

GEAR OIL SAE 80W90 (--- GAL)



Mar2024

DIAGNOSIS

▲ Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm. Please specify the component make and model with your next sample.

▲ Wear

Copper and tin ppm levels are severe. Iron and lead ppm levels are abnormal. Aluminum ppm levels are noted. Thrust washer and/or bearing/bushing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0920157	---	---
Sample Date	Client Info		20 Mar 2024	---	---
Machine Age	hrs	Client Info	1675	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			SEVERE	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		127	---	---
Iron	ppm	ASTM D5185(m) >500	▲ 1180	---	---
Chromium	ppm	ASTM D5185(m) >10	6	---	---
Nickel	ppm	ASTM D5185(m) >10	3	---	---
Titanium	ppm	ASTM D5185(m)	2	---	---
Silver	ppm	ASTM D5185(m)	0	---	---
Aluminum	ppm	ASTM D5185(m) >25	● 24	---	---
Lead	ppm	ASTM D5185(m) >25	▲ 32	---	---
Copper	ppm	ASTM D5185(m) >100	▲ 363	---	---
Tin	ppm	ASTM D5185(m) >10	▲ 37	---	---
Antimony	ppm	ASTM D5185(m) >5	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

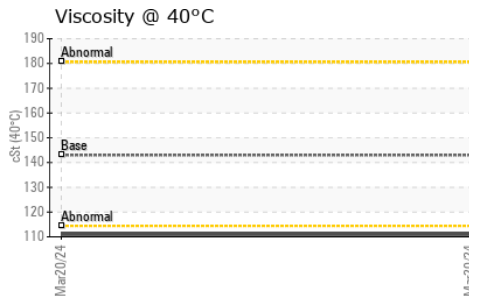
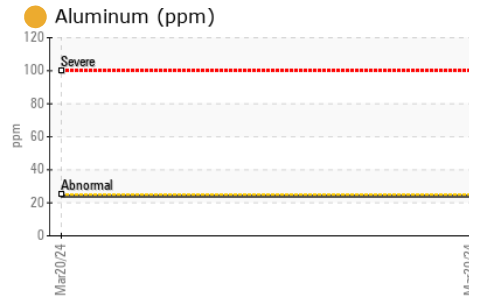
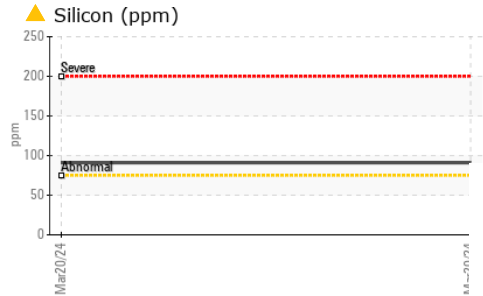
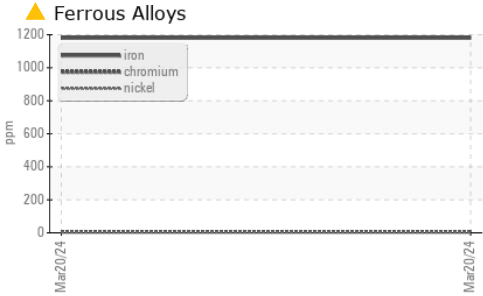
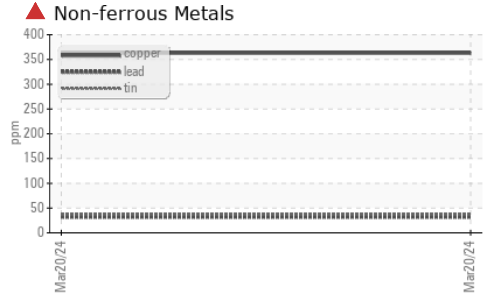
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 400	134	---	---
Barium	ppm	ASTM D5185(m) 200	<1	---	---
Molybdenum	ppm	ASTM D5185(m) 12	2	---	---
Manganese	ppm	ASTM D5185(m)	10	---	---
Magnesium	ppm	ASTM D5185(m) 12	45	---	---
Calcium	ppm	ASTM D5185(m) 150	72	---	---
Phosphorus	ppm	ASTM D5185(m) 1650	812	---	---
Zinc	ppm	ASTM D5185(m) 125	208	---	---
Sulfur	ppm	ASTM D5185(m) 22500	13423	---	---
Lithium	ppm	ASTM D5185(m)	1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >75	▲ 91	---	---
Sodium	ppm	ASTM D5185(m) >170	16	---	---
Potassium	ppm	ASTM D5185(m) >20	11	---	---



OIL ANALYSIS REPORT



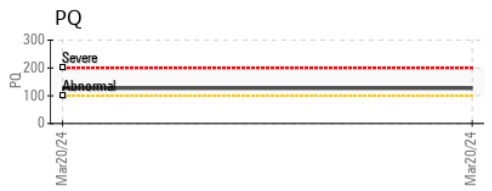
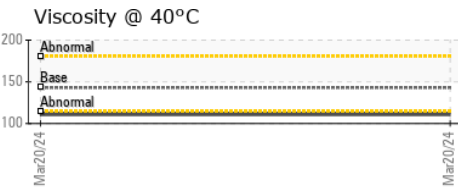
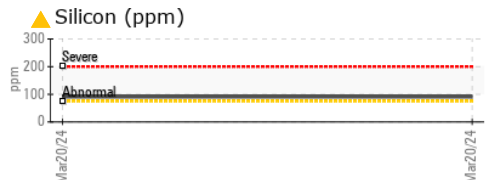
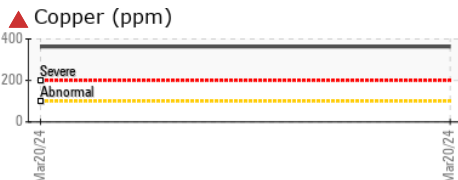
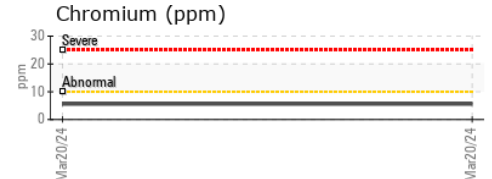
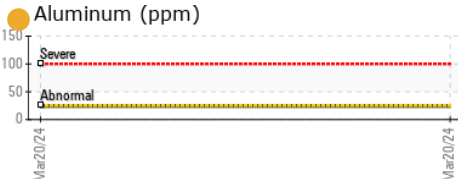
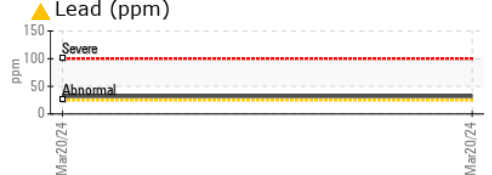
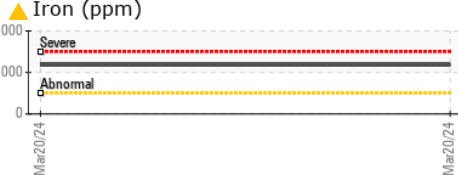
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>.2	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	143	111	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0920157
Lab Number : 02624773
Unique Number : 5749892
Test Package : MOB 1 (Additional Tests: PQ)

Agnico Eagle Canada
 1350 Government Rd. W, MACASSA COMPLEX
 Kirkland Lake, ON
 CA P2N 3J1
 Contact: Mitch Lamontagne

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.

AEM_KL_macassaoilsampleresults@agnicoeagle.com
 T: (705)567-5208
 F: (705)567-5221