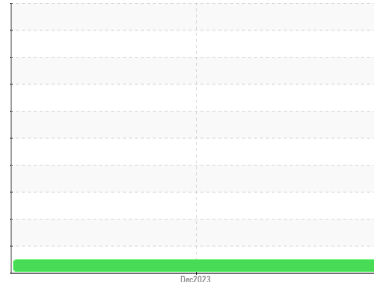




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
BD SHOP
 Machine Id
REFERENCE OIL GOLD 4
 Component
New (Unused) Oil
 Fluid
TEST OIL GOLD 4 (--- GAL)

DIAGNOSIS

Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. (Customer Sample Comment: New oil reference)

Wear

{not applicable}

Contamination

There is no indication of any contamination in the new (unused) oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0888927	---	---
Sample Date	Client Info		22 Dec 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			NORMAL	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >5	2	---	---
Chromium	ppm	ASTM D5185(m) >5	0	---	---
Nickel	ppm	ASTM D5185(m) >5	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m) >5	0	---	---
Aluminum	ppm	ASTM D5185(m) >5	<1	---	---
Lead	ppm	ASTM D5185(m) >5	0	---	---
Copper	ppm	ASTM D5185(m) >5	2	---	---
Tin	ppm	ASTM D5185(m) >5	0	---	---
Antimony	ppm	ASTM D5185(m)	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) 1	<1	---	---
Barium	ppm	ASTM D5185(m) 0	0	---	---
Molybdenum	ppm	ASTM D5185(m) 60	58	---	---
Manganese	ppm	ASTM D5185(m) 0	0	---	---
Magnesium	ppm	ASTM D5185(m) 950	1010	---	---
Calcium	ppm	ASTM D5185(m) 980	1080	---	---
Phosphorus	ppm	ASTM D5185(m) 1100	1080	---	---
Zinc	ppm	ASTM D5185(m) 1150	1200	---	---
Sulfur	ppm	ASTM D5185(m) 2600	2840	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

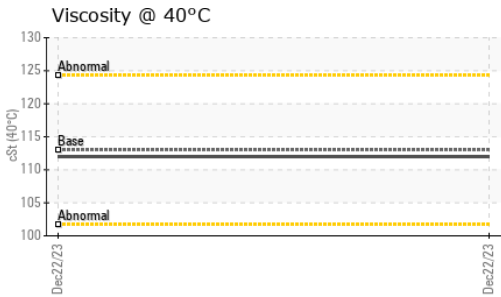
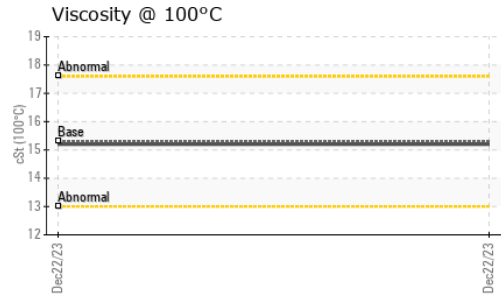
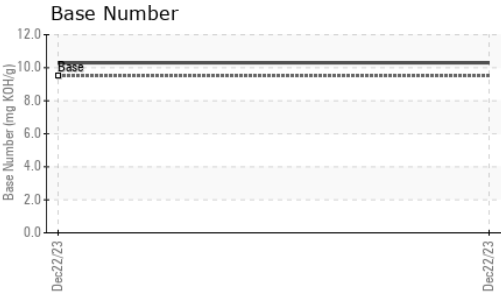
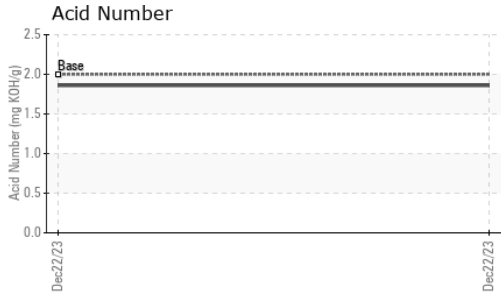
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	4	---	---
Sodium	ppm	ASTM D5185(m)	<1	---	---
Potassium	ppm	ASTM D5185(m) >20	<1	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	---	---
Nitration	Abs/cm	ASTM D7624*	4.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	17.5	---	---



OIL ANALYSIS REPORT





FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	22802	---	---
Particles >6µm	ASTM D7647	>1300	5350	---	---
Particles >14µm	ASTM D7647	>160	163	---	---
Particles >21µm	ASTM D7647	>40	42	---	---
Particles >38µm	ASTM D7647	>10	3	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	22/20/15	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*		12.8	---	---
Acid Number (AN)	mg KOH/g ASTM D974*	2.0	1.86	---	---
Base Number (BN)	mg KOH/g ASTM D2896*	9.5	10.30	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	113	112	---	---
Visc @ 100°C	cSt ASTM D7279(m)	15.3	15.2	---	---
Viscosity Index (VI)	Scale ASTM D2270*	141	141	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0888927 **Recieved** : 27 Dec 2023
Lab Number : **02605295** **Diagnosed** : 02 Jan 2024
Unique Number : 5698380 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TAN Man, TBN, VI)

WFR Technical Services
 5389 Riverside Drive
 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
 wfr.technical.services@gmail.com

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.