



OIL ANALYSIS REPORT

Sample Rating Trend



OFF SPEC



Area

Gerdau - 888078

Machine Id

AG278-R

Component

Unknown Component

Fluid

SHELL OMALA S4 GX 220 (--- GAL)

DIAGNOSIS

▲ Recommendation

We certify this oil to be clean and dry.

▲ Fluid Condition

Visc @ 100°C is abnormally low. Viscosity Index (VI) is abnormally low. Zinc ppm levels are notably high. Calcium ppm levels are notably high.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Machine ID	Client Info		Stage 15 Gear B	---	---
Department	Client Info		Sales	---	---
Sample From	Client Info		Machine	---	---
Production Stage	Client Info		Lab Reclaim	---	---
Sent to WC	Client Info		04/01/2024	---	---
Sample Number	Client Info		E30001778	---	---
Sample Date	Client Info		01 Apr 2024	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	6	---	---
Chromium	ppm	ASTM D5185(m)	0	---	---
Nickel	ppm	ASTM D5185(m)	0	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	0	---	---
Aluminum	ppm	ASTM D5185(m)	<1	---	---
Lead	ppm	ASTM D5185(m)	1	---	---
Copper	ppm	ASTM D5185(m)	<1	---	---
Tin	ppm	ASTM D5185(m)	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

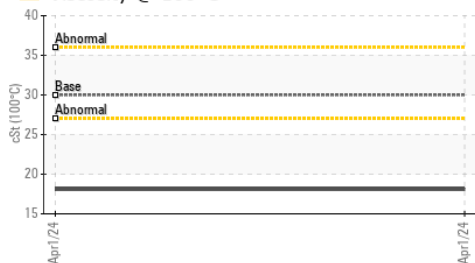
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	6	---	---
Barium	ppm	ASTM D5185(m)	0	---	---
Molybdenum	ppm	ASTM D5185(m)	2	---	---
Manganese	ppm	ASTM D5185(m)	0	---	---
Magnesium	ppm	ASTM D5185(m)	10	---	---
Calcium	ppm	ASTM D5185(m)	35	---	---
Phosphorus	ppm	ASTM D5185(m)	258	---	---
Zinc	ppm	ASTM D5185(m)	25	---	---
Sulfur	ppm	ASTM D5185(m)	7609	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

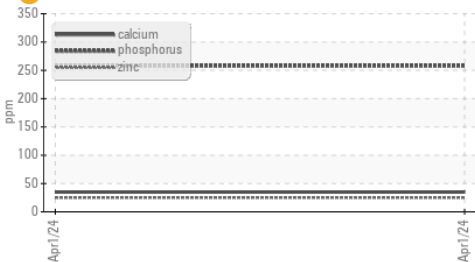
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	0	---	---
Sodium	ppm	ASTM D5185(m)	10	---	---
Potassium	ppm	ASTM D5185(m) >20	2	---	---
Water	%	ASTM D6304*	0.001	---	---
ppm Water	ppm	ASTM D6304*	3	---	---

OIL ANALYSIS REPORT

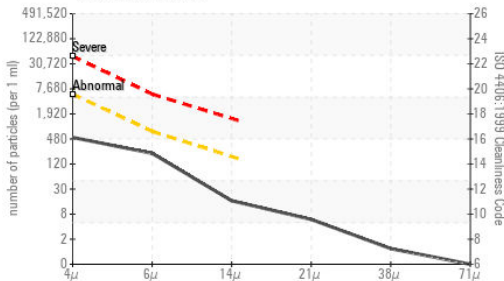
▲ Viscosity @ 100°C



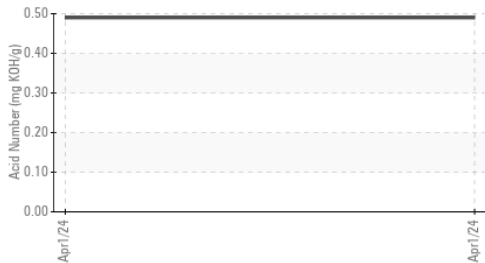
● Additives



Particle Count



Acid Number



Water (KF)



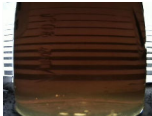

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	460	---	---
Particles >6µm	ASTM D7647	>640	191	---	---
Particles >14µm	ASTM D7647	>160	14	---	---
Particles >21µm	ASTM D7647	>40	5	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/16/14	16/15/11	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.49	---	---

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)	230	207	---
Visc @ 100°C	cSt	ASTM D7279(m)	30	▲ 18.1	---
Viscosity Index (VI)	Scale	ASTM D2270*	160	▲ 95	---

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



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : E30001778
Lab Number : **02626155**
Unique Number : 5759287
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, TAN Man, VI)

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To discuss this sample report, contact Customer Service at 1-905-372-2251.
 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.