



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**TRIOLIET BV 11732972/ING04**  
 Component  
**Gearbox**  
 Fluid  
**SHELL OMALA S4 GX 220 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PE0002534</b>	PE0003823	PE0002510
Sample Date		Client Info		<b>28 May 2024</b>	14 May 2024	20 Oct 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>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>200	<b>37</b>	33	35
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>200	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>25	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

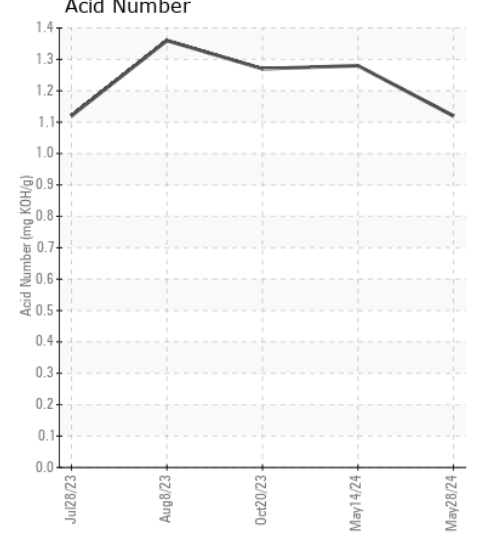
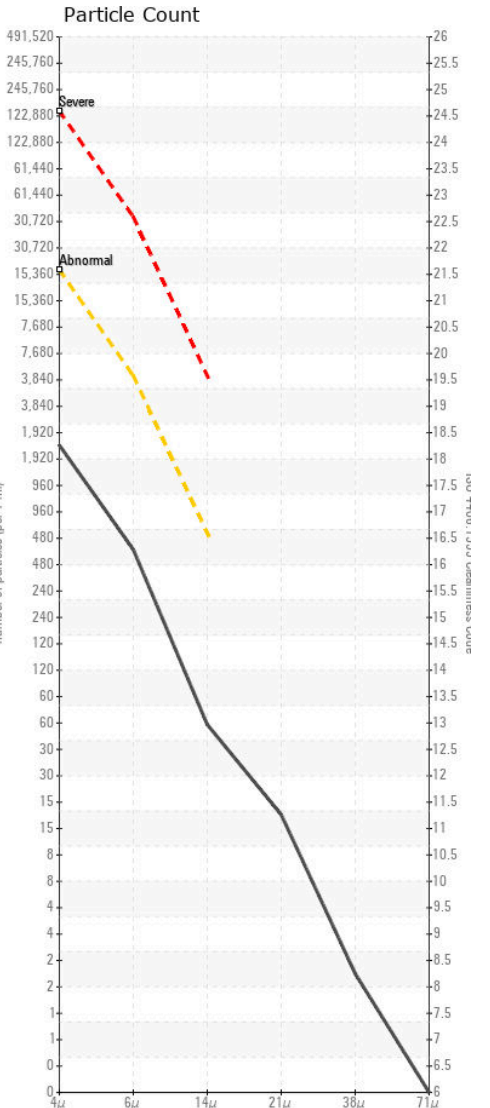
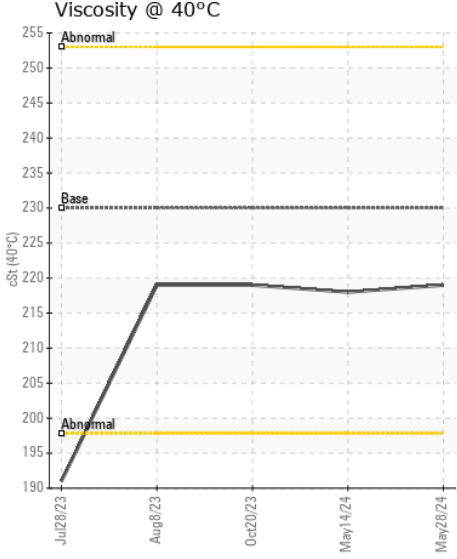
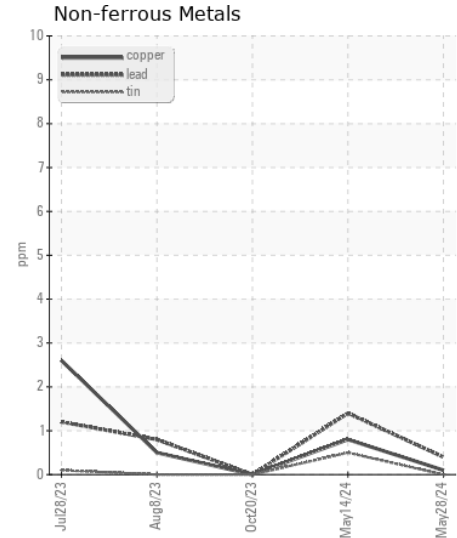
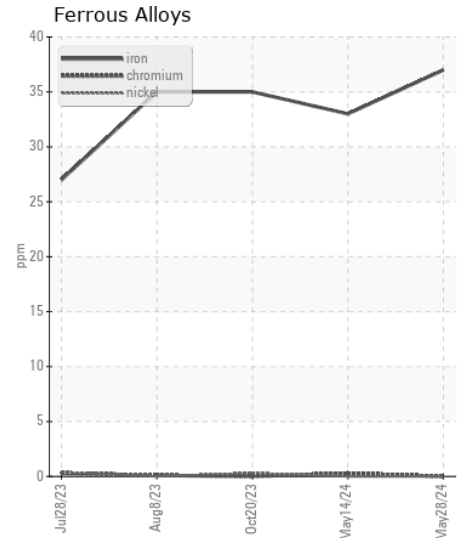
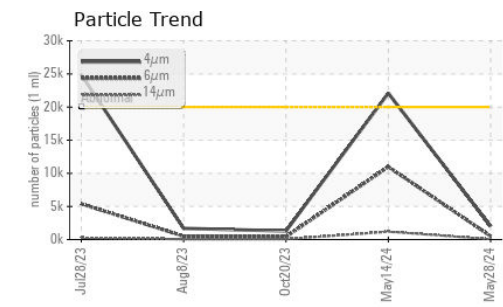
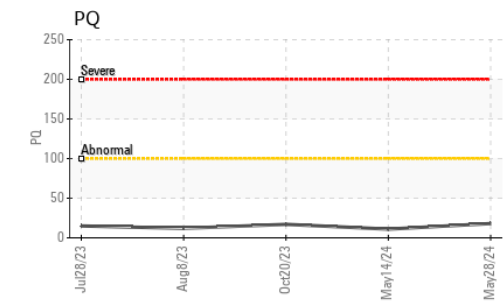
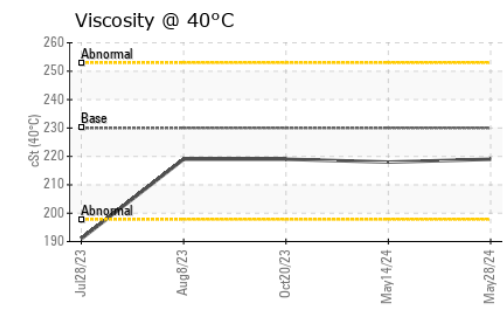
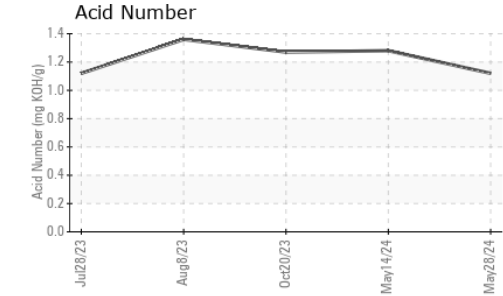
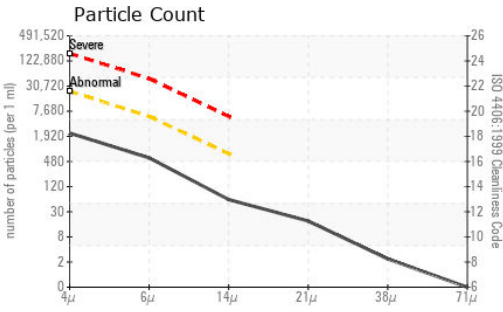
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>3</b>	5	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>2012</b>	▲ 22095	1291
Particles >6µm		ASTM D7647	>5000	<b>514</b>	▲ 10993	412
Particles >14µm		ASTM D7647	>640	<b>52</b>	▲ 1194	64
Particles >21µm		ASTM D7647	>160	<b>16</b>	▲ 188	20
Particles >38µm		ASTM D7647	>40	<b>2</b>	15	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	3	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>18/16/13</b>	▲ 22/21/17	17/16/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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>NEG</b>	NEG	NEG

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	4	0
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	4	3
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>15</b>	0	6
Calcium	ppm	ASTM D5185m		<b>16</b>	8	16
Phosphorus	ppm	ASTM D5185m		<b>423</b>	412	423
Zinc	ppm	ASTM D5185m		<b>607</b>	548	616
Sulfur	ppm	ASTM D5185m		<b>6215</b>	6420	5775
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.12</b>	1.28	1.27
Visc @ 40°C	cSt	ASTM D445	230	<b>219</b>	218	219



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0002534  
**Lab Number** : 06196543  
**Unique Number** : 11058666  
**Test Package** : CONST ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )  
**Received** : 31 May 2024  
**Tested** : 03 Jun 2024  
**Diagnosed** : 03 Jun 2024 - Don Baldrige  
 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)

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