



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
RIG 2
Machine Id
Component
WHITE STAR 2450 R2-P-01G-NKL
Fluid
Gearbox Oil (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

WEAR

Gear wear is indicated.

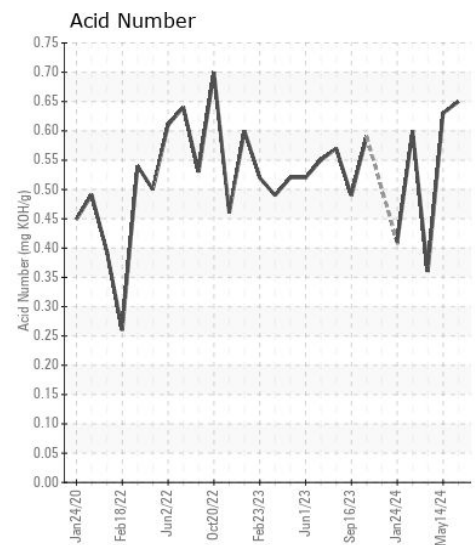
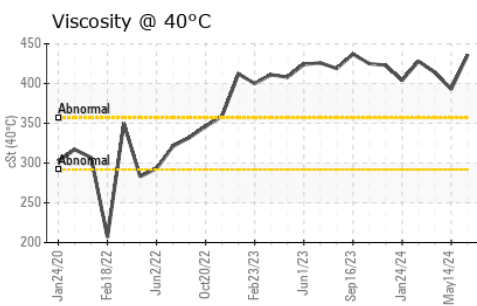
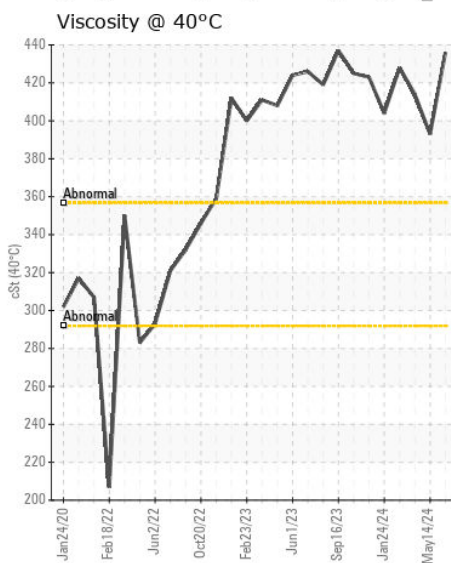
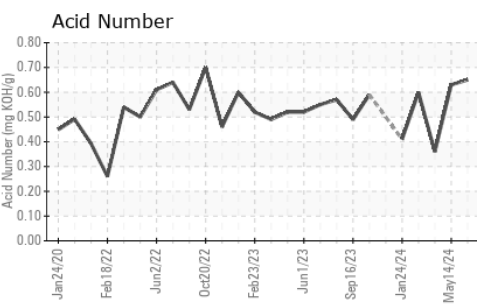
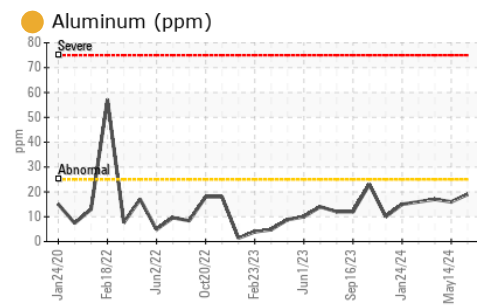
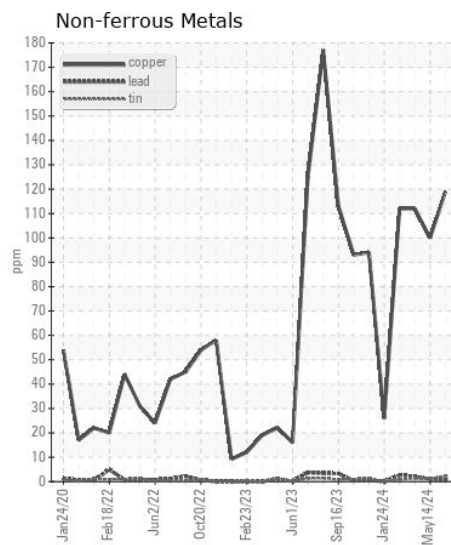
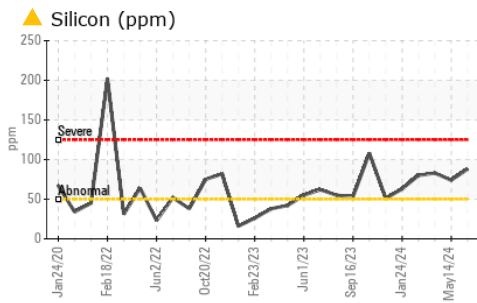
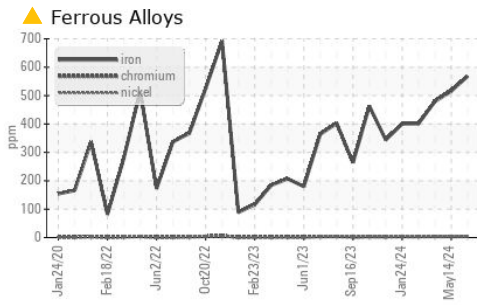
CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate amount of visible silt present in the sample.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014439	KL0014256	KL0014239
Sample Date		Client Info		16 Jun 2024	14 May 2024	03 Apr 2024
Machine Age	days	Client Info		45449	45416	45375
Oil Age	days	Client Info		0	0	0
Filter Age	days	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>200	▲ 568	▲ 516	▲ 479
Chromium	ppm	ASTM D5185m	>10	4	4	4
Nickel	ppm	ASTM D5185m	>10	5	4	4
Titanium	ppm	ASTM D5185m		1	1	2
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	● 19	● 16	● 17
Lead	ppm	ASTM D5185m	>50	<1	1	2
Copper	ppm	ASTM D5185m	>200	119	100	112
Tin	ppm	ASTM D5185m	>10	2	1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	▲ 88	▲ 74	▲ 83
Potassium	ppm	ASTM D5185m	>20	33	29	31
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647		---	---	---
Particles >6µm		ASTM D7647	>5000	---	---	---
Particles >14µm		ASTM D7647	>640	---	---	---
Particles >21µm		ASTM D7647	>160	---	---	---
Particles >38µm		ASTM D7647	>40	---	---	---
Particles >71µm		ASTM D7647	>10	---	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16	---	---	---
Silt	scalar	*Visual	NONE	▲ MODER	▲ HEAVY	▲ MODER
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		438	398	399
Boron	ppm	ASTM D5185m		21	48	20
Barium	ppm	ASTM D5185m		88	85	96
Molybdenum	ppm	ASTM D5185m		202	220	269
Manganese	ppm	ASTM D5185m		5	5	4
Magnesium	ppm	ASTM D5185m		47	65	57
Calcium	ppm	ASTM D5185m		168	228	187
Phosphorus	ppm	ASTM D5185m		233	261	266
Zinc	ppm	ASTM D5185m		65	125	86
Sulfur	ppm	ASTM D5185m		9577	8756	8361
Acid Number (AN)	mg KOH/g	ASTM D8045		0.65	0.63	0.36
Visc @ 40°C	cSt	ASTM D445		436	393	414



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014439 **Received** : 02 Jul 2024
Lab Number : 06226780 **Tested** : 05 Jul 2024
Unique Number : 11110273 **Diagnosed** : 05 Jul 2024 - Doug Bogart
Test Package : MOB 2 (Additional Tests: PrtCount)

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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