OIL ANALYSIS REPORT

TULCO OILS / **WEAR CHECK**

Sample Rating Trend

NORMAL ✓

Area
[101353]
Machine Id
1GR-Y303A
Component
Gearbox
Fluid
OPTIGEAR 1100/220 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		**TO60002451**	TO60000904	---
Sample Date	Client Info		**09 Apr 2024**	09 Jan 2024	---
Machine Age	hrs	Client Info	**0**	0	---
Oil Age	hrs	Client Info	**0**	0	---
Oil Changed	Client Info		**N/A**	N/A	---
Sample Status			**NORMAL**	NORMAL	---

CONTAMINATION	method	limit/base	current	history1	history2
Water	WC Method	>0.2	**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**15**	14	---
Iron	ppm	ASTM D5185m	>200	**<1**	0	---
Chromium	ppm	ASTM D5185m	>15	**<1**	0	---
Nickel	ppm	ASTM D5185m	>15	**<1**	0	---
Titanium	ppm	ASTM D5185m		**<1**	0	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>25	**16**	6	---
Lead	ppm	ASTM D5185m	>100	**0**	0	---
Copper	ppm	ASTM D5185m	>200	**3**	<1	---
Tin	ppm	ASTM D5185m	>25	**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**<1**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	---
Barium	ppm	ASTM D5185m		**6**	4	---
Molybdenum	ppm	ASTM D5185m		**2072**	1813	---
Manganese	ppm	ASTM D5185m		**0**	0	---
Magnesium	ppm	ASTM D5185m		**0**	0	---
Calcium	ppm	ASTM D5185m		**77**	55	---
Phosphorus	ppm	ASTM D5185m		**2938**	2968	---
Zinc	ppm	ASTM D5185m		**1128**	1170	---
Sulfur	ppm	ASTM D5185m		**5549**	4960	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**29**	18	---
Sodium	ppm	ASTM D5185m		**0**	0	---
Potassium	ppm	ASTM D5185m	>20	**1**	0	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

OIL ANALYSIS REPORT

Viscosity @ 100°C

Viscosity @ 40°C

PQ

Acid Number
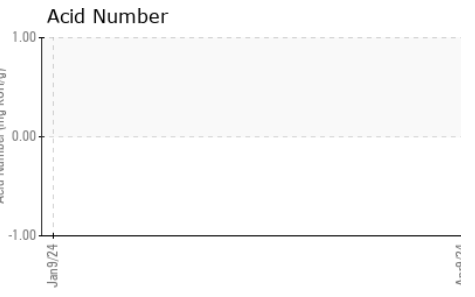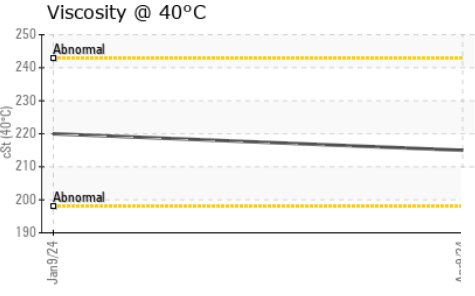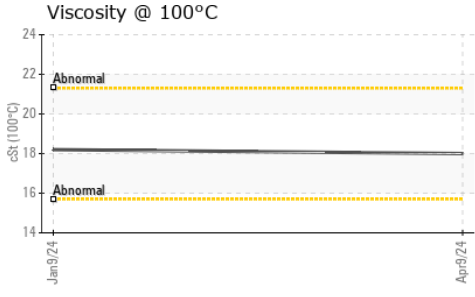
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**215**	220	---
Visc @ 100°C	cSt	ASTM D445		**18.0**	18.2	---
Viscosity Index (VI)	Scale	ASTM D2270		**91**	90	---

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

GRAPHS

Ferrous Alloys

PQ

Non-ferrous Metals

Viscosity @ 40°C

Acid Number
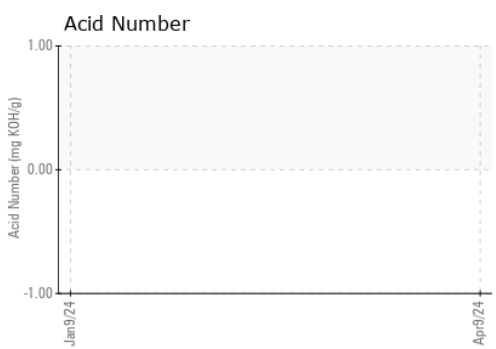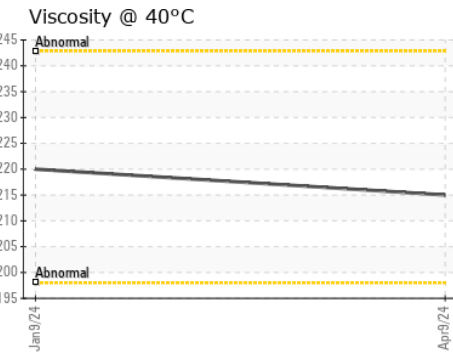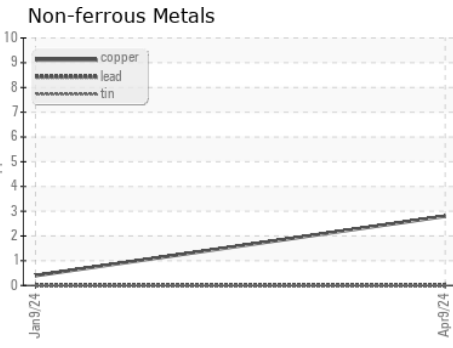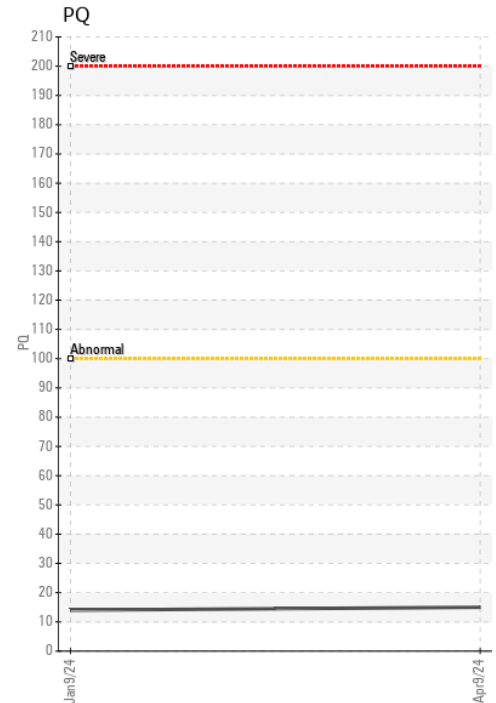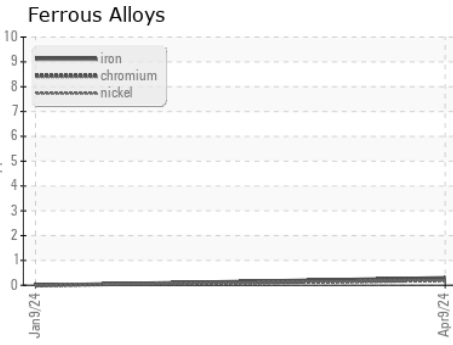
Laboratory

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60002451 **Received** : 19 Apr 2024
Lab Number : 06155297 **Tested** : 24 Apr 2024
Unique Number : 10990720 **Diagnosed** : 24 Apr 2024 - Sean Felton
Test Package : IND 2 (Additional Tests: KV100, PQ, VI)
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)

YUPO
800 YUPO CT
CHESAPEAKE, VA
US 23320
Contact: KEVIN RAND
KRAND@YUPO.COM
T:
F:

Certificate L2367

ANAB ACCREDITED

Report Id: YUPCHEVA [WUSCAR] 06155297 (Generated: 04/24/2024 13:03:20) Rev: 1

Contact/Location: KEVIN RAND - YUPCHEVA

Page 2 of 2