



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**ENGEL IMM400-1**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 46 (500 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ST45504</b>	---	---
Sample Date		Client Info		<b>28 Mar 2024</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

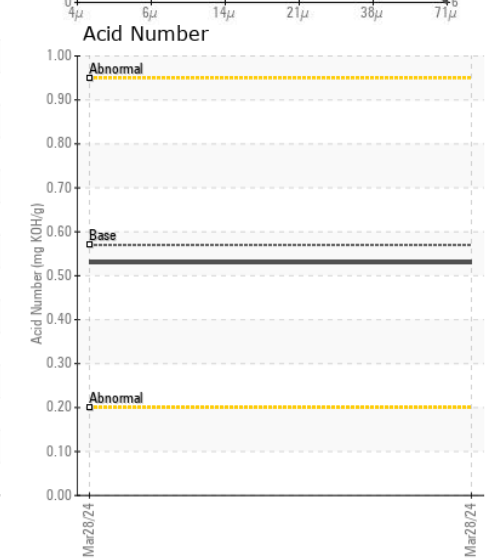
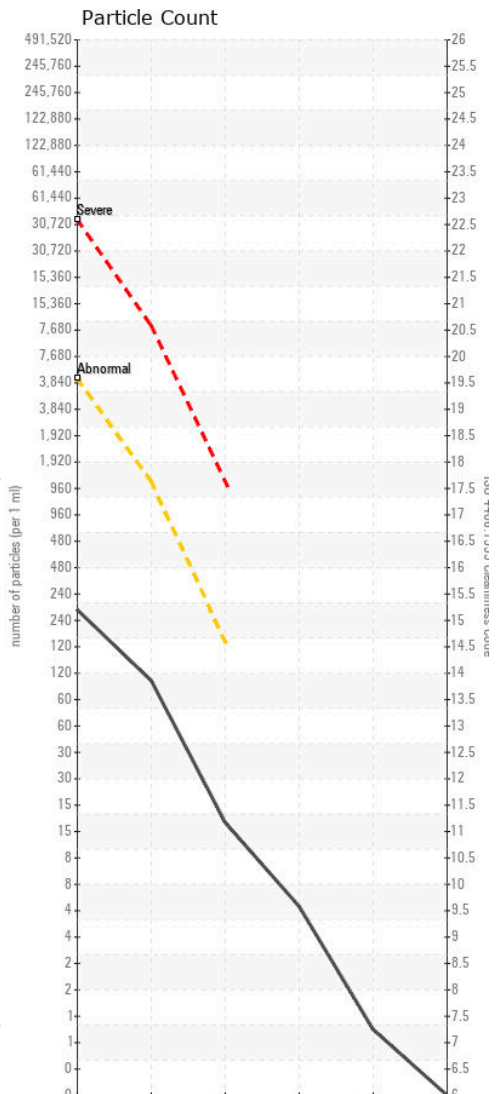
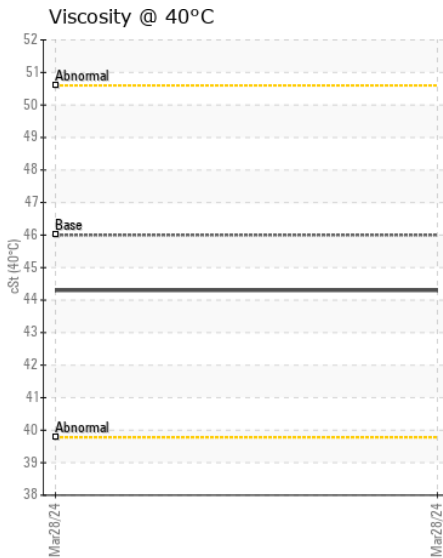
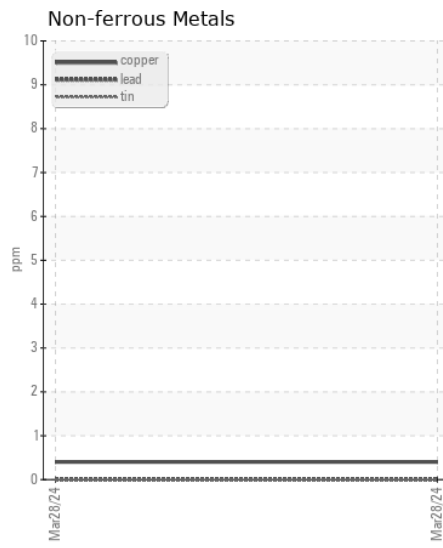
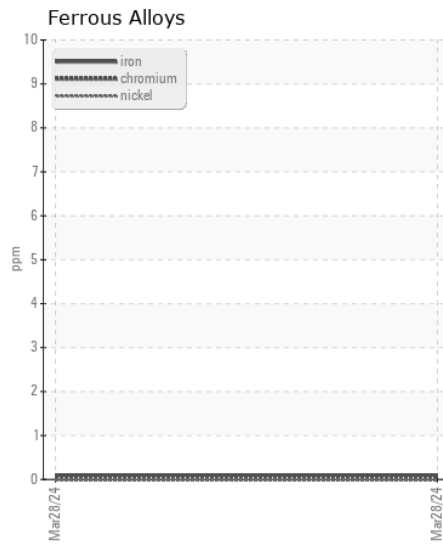
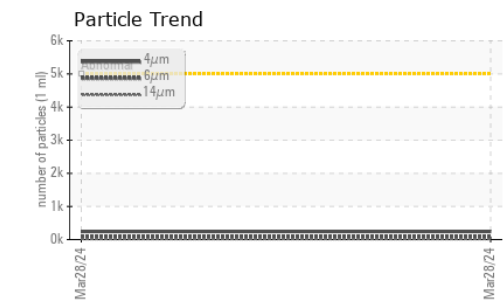
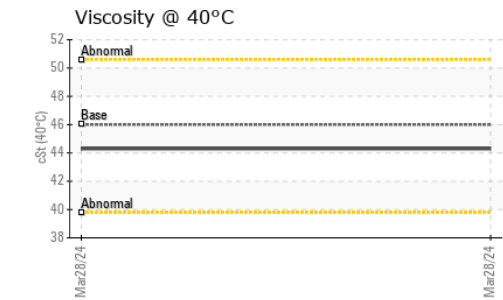
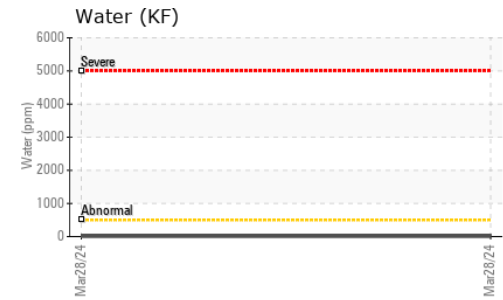
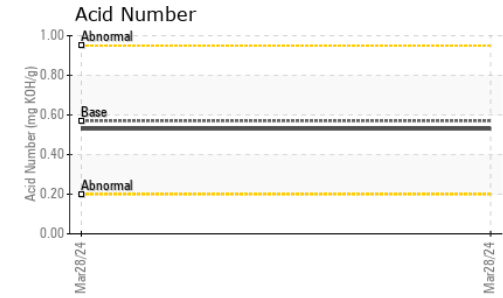
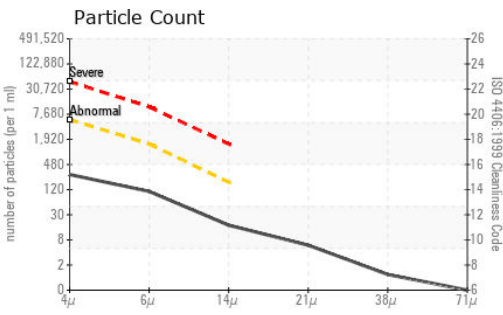
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Water	%	ASTM D6304*	>0.05	<b>0.001</b>	---	---
ppm Water	ppm	ASTM D6304*	>500	<b>9</b>	---	---
Particles >4µm		ASTM D7647	>5000	<b>243</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>96</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>15</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>5</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>1</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>15/14/11</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	---	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Boron	ppm	ASTM D5185(m)	5	<b>0</b>	---	---
Barium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)	25	<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185(m)	200	<b>71</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	300	<b>485</b>	---	---
Zinc	ppm	ASTM D5185(m)	370	<b>618</b>	---	---
Sulfur	ppm	ASTM D5185(m)	2500	<b>1469</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	<b>0.53</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>44.3</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : ST45504 **Received** : 15 Apr 2024  
**Lab Number** : 02628816 **Tested** : 16 Apr 2024  
**Unique Number** : 5761948 **Diagnosed** : 17 Apr 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: KF )

**KUMI CANADA CORPORATION**  
 55 REAGENS INDUSTRIAL PKWY  
 BRADFORD, ON  
 CA L3Z 0Z9  
 Contact: Service Manager

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.

T:  
F: