



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

MINING

Machine Id

ME-588 JOHN DEERE 944K 1DW944KXCNL703692

Component

Front Left Final Drive

Fluid

SHELL Spirax S4 CX 30 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 75W80 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0946267	---	---
Sample Date	Client Info		21 Jun 2024	---	---
Machine Age	hrs	Client Info	2184	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Not Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.075	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >750	19	---	---
Chromium	ppm	ASTM D5185(m) >9	0	---	---
Nickel	ppm	ASTM D5185(m) >10	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	<1	---	---
Aluminum	ppm	ASTM D5185(m) >40	<1	---	---
Lead	ppm	ASTM D5185(m) >15	2	---	---
Copper	ppm	ASTM D5185(m) >40	▲ 94	---	---
Tin	ppm	ASTM D5185(m) >10	0	---	---
Antimony	ppm	ASTM D5185(m) >5	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

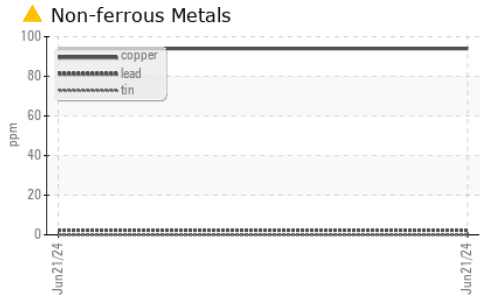
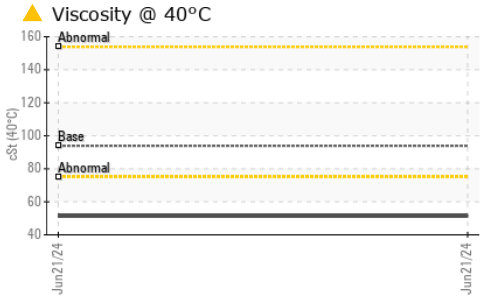
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	3	---	---
Barium	ppm	ASTM D5185(m)	3	---	---
Molybdenum	ppm	ASTM D5185(m)	0	---	---
Manganese	ppm	ASTM D5185(m)	<1	---	---
Magnesium	ppm	ASTM D5185(m)	92	---	---
Calcium	ppm	ASTM D5185(m)	3351	---	---
Phosphorus	ppm	ASTM D5185(m)	1028	---	---
Zinc	ppm	ASTM D5185(m)	1205	---	---
Sulfur	ppm	ASTM D5185(m)	3167	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >75	41	---	---
Sodium	ppm	ASTM D5185(m) >51	3	---	---
Potassium	ppm	ASTM D5185(m) >20	<1	---	---



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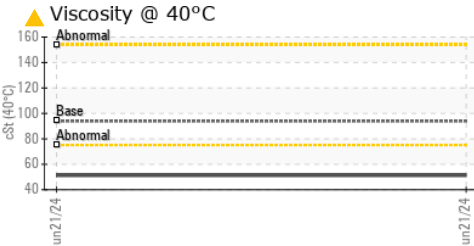
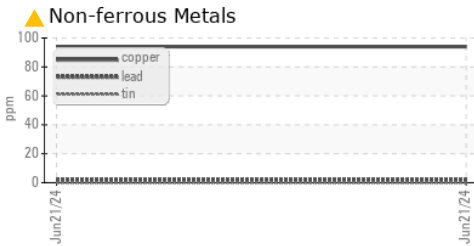
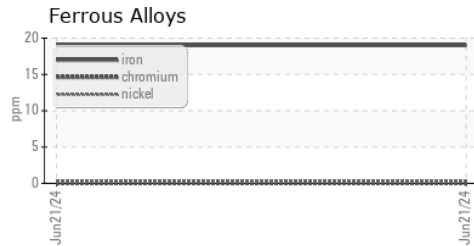
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.075	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	93.9 ▲ 51.3	---	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0946267 **Received** : 05 Jul 2024
Lab Number : **02645949** **Tested** : 05 Jul 2024
Unique Number : 5811501 **Diagnosed** : 05 Jul 2024 - Kevin Marson
Test Package : CONST

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 Havelock, ON
 CA K0L 1Z0
 Contact: Dan Lyon
 dan.lyon@coviacorp.com
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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.