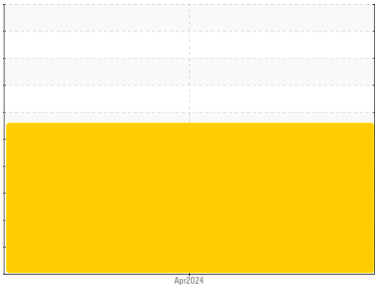
PROBLEM SUMMARY

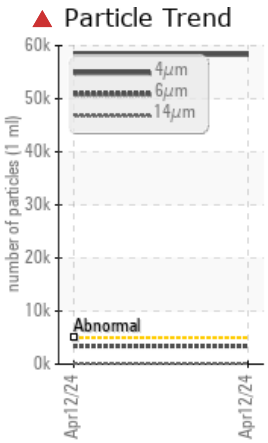
Sample Rating Trend

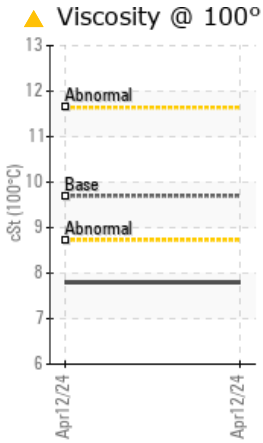


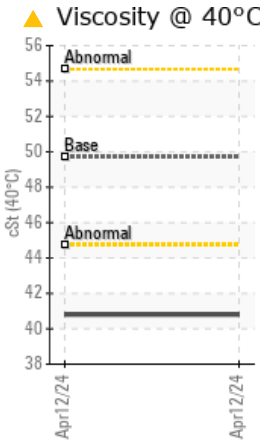
WEAR

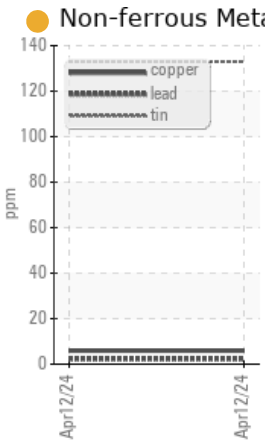
Area
Hendrickson Spring - H00200
Machine Id
A2404058
Component
Hydraulic System
Fluid
QUAKER CHEMICAL QUINTOLUBRIC 888-46 (--- GAL)

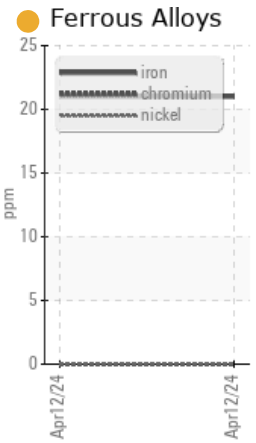
COMPONENT CONDITION SUMMARY











RECOMMENDATION

The sample submitted is 16 times dirtier than the ISO dirt count recommendation of 19/16/14.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Particles >4µm		ASTM D7647	>5000	▲ **58332**	---	---
Particles >6µm		ASTM D7647	>640	▲ **3421**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16/14	▲ **23/19/14**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	49.7	▲ **40.8**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	9.7	▲ **7.8**	---	---

Customer Id: CHECOB
Sample No.: E30001841
Lab Number: 02628859
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Tatiana Sorkina +1 (800)263-3939
tsorkina@e360s.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

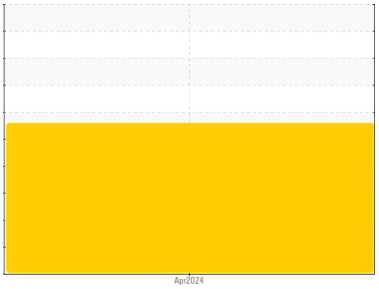
RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Hendrickson Spring - H00200
Machine Id
A2404058
Component
Hydraulic System
Fluid
QUAKER CHEMICAL QUINTOLUBRIC 888-46 (--- GAL)

DIAGNOSIS

Recommendation
The sample submitted is 16 times dirtier than the ISO dirt count recommendation of 19/16/14.

Wear
Iron and tin ppm levels are noted.

Contamination
Particles >4µm are abnormally high. Particles >6µm and oil cleanliness are abnormally high.

Fluid Condition
Visc @ 100°C is abnormally low. Visc @ 40°C is abnormally low. Sulfur ppm levels are notably high. Zinc ppm levels are notably high. Calcium ppm levels are notably high.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Batch #		Client Info		**2024 03 0790**	---	---
Department		Client Info		**Production**	---	---
Sample From		Client Info		**Machine**	---	---
Production Stage		Client Info		**Final**	---	---
Sent to WC		Client Info		**04/12/2024**	---	---
Sample Number		Client Info		**E30001841**	---	---
Sample Date		Client Info		**12 Apr 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

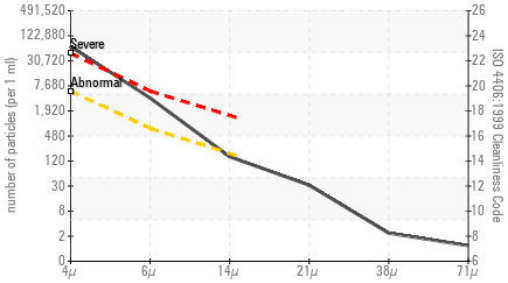
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**21**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>20	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	---	---
Lead	ppm	ASTM D5185(m)	>20	**2**	---	---
Copper	ppm	ASTM D5185(m)	>20	**6**	---	---
Tin	ppm	ASTM D5185(m)	>20	**133**	---	---
Antimony	ppm	ASTM D5185(m)		**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)		**1**	---	---
Barium	ppm	ASTM D5185(m)		**0**	---	---
Molybdenum	ppm	ASTM D5185(m)		**0**	---	---
Manganese	ppm	ASTM D5185(m)		**<1**	---	---
Magnesium	ppm	ASTM D5185(m)		**8**	---	---
Calcium	ppm	ASTM D5185(m)		**29**	---	---
Phosphorus	ppm	ASTM D5185(m)		**162**	---	---
Zinc	ppm	ASTM D5185(m)		**124**	---	---
Sulfur	ppm	ASTM D5185(m)		**744**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

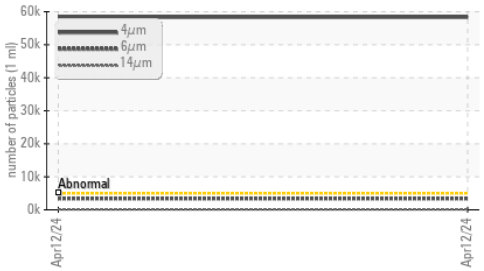
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**2**	---	---
Sodium	ppm	ASTM D5185(m)		**5**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**1**	---	---
Water	%	ASTM D6304*	>0.05	**0.035**	---	---
ppm Water	ppm	ASTM D6304*	>500	**354**	---	---

OIL ANALYSIS REPORT

Particle Count

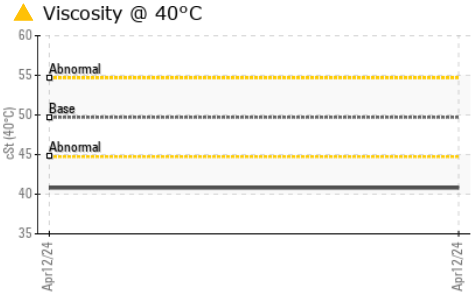


Particle Trend

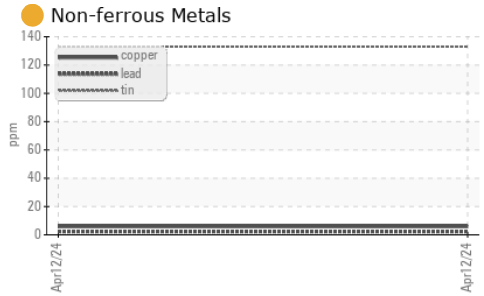


Viscosity @ 100°C

Viscosity @ 40°C



Non-ferrous Metals

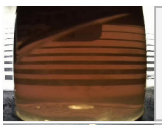


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **58332**	---	---
Particles >6µm		ASTM D7647	>640	▲ **3421**	---	---
Particles >14µm		ASTM D7647	>160	**135**	---	---
Particles >21µm		ASTM D7647	>40	**28**	---	---
Particles >38µm		ASTM D7647	>10	**2**	---	---
Particles >71µm		ASTM D7647	>3	**1**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16/14	▲ **23/19/14**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.0	**1.35**	---	---

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*	>0.05	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	49.7	▲ **40.8**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	9.7	▲ **7.8**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	185	**164**	---	---

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : E30001841
Lab Number : 02628859
Unique Number : 5761991
Test Package : IND 2 (Additional Tests: KF, KV100, pH, ReserveAlk, VI)
Received : 15 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 24 Apr 2024 - Tatiana Sorkina

To discuss this sample report, contact Customer Service at 1-905-372-2251.
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.

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