OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
HC2207
Component
2 Winch
Fluid
GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

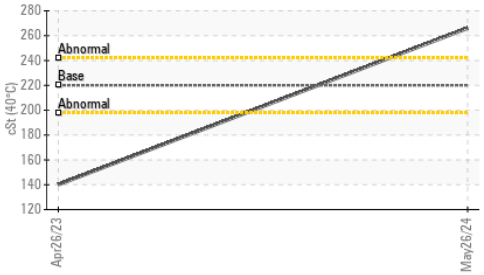
Excessive free water present. There is a moderate amount of visible silt present in the sample.

FLUID CONDITION

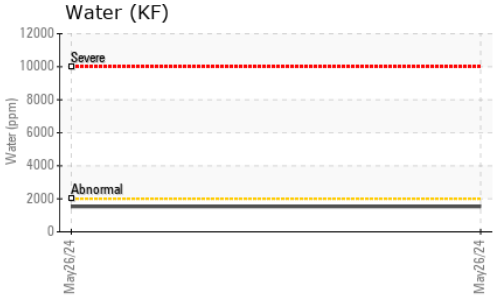
The oil viscosity is higher than normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936023	WC0784927	---
Sample Date		Client Info		26 May 2024	26 Apr 2023	---
Machine Age	hrs	Client Info		8388	7638	---
Oil Age	hrs	Client Info		750	974	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Not Changd	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>150	44	5	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>5	0	0	---
Lead	ppm	ASTM D5185m	>15	0	<1	---
Copper	ppm	ASTM D5185m	>80	<1	4	---
Tin	ppm	ASTM D5185m		0	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	<1	3	---
Potassium	ppm	ASTM D5185m	>20	0	6	---
Water	%	ASTM D6304	>0.2	0.153	---	---
ppm Water	ppm	ASTM D6304	>2000	1530	---	---
Silt	scalar	*Visual	NONE	▲ MODER	NONE	---
Debris	scalar	*Visual	NONE	NONE	▲ MODER	---
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	0.2%	NEG	---
Sodium	ppm	ASTM D5185m		<1	11	---
Boron	ppm	ASTM D5185m	50	23	398	---
Barium	ppm	ASTM D5185m	15	0	0	---
Molybdenum	ppm	ASTM D5185m	15	2	0	---
Manganese	ppm	ASTM D5185m		3	<1	---
Magnesium	ppm	ASTM D5185m	50	0	4	---
Calcium	ppm	ASTM D5185m	50	10	5	---
Phosphorus	ppm	ASTM D5185m	350	702	1235	---
Zinc	ppm	ASTM D5185m	100	80	29	---
Sulfur	ppm	ASTM D5185m	12500	12445	18743	---
Visc @ 40°C	cSt	ASTM D445	220	▲ 266	140	---

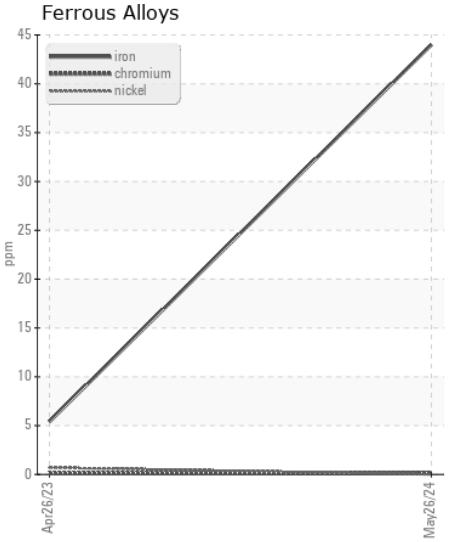
Viscosity @ 40°C



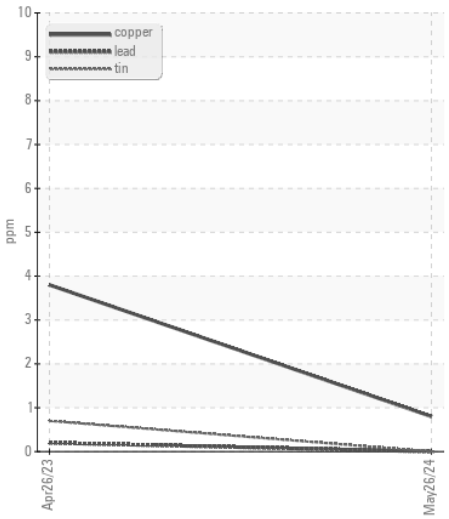
Water (KF)



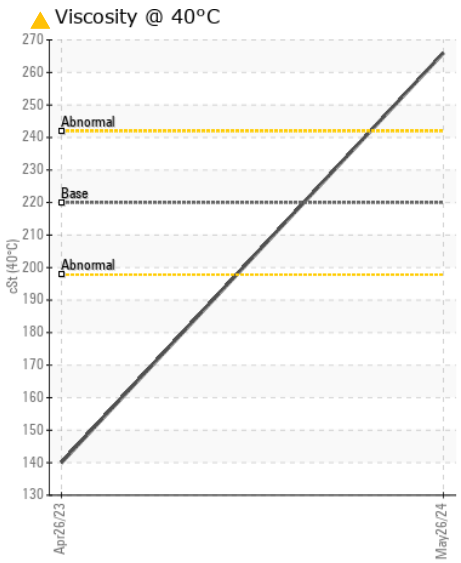
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0936023 **Received** : 24 May 2024
Lab Number : 06191366 **Tested** : 29 May 2024
Unique Number : 11048118 **Diagnosed** : 29 May 2024 - Angela Borella
Test Package : CONST (Additional Tests: KF)

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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