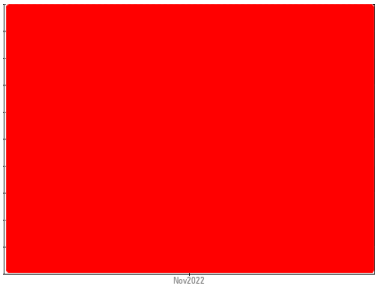
PROBLEM SUMMARY

Sample Rating Trend

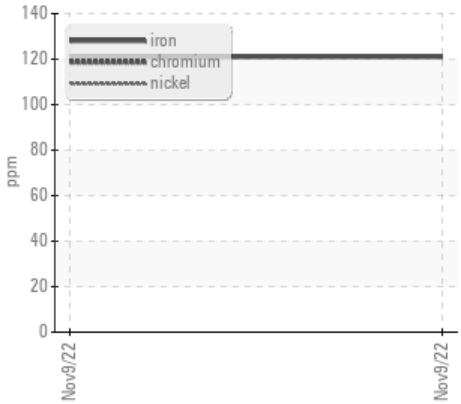


WEAR

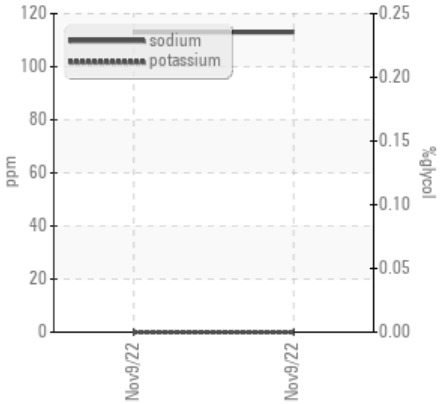
Machine Id
LOOP - COLD SIDE
Component
Cooling Water
Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY

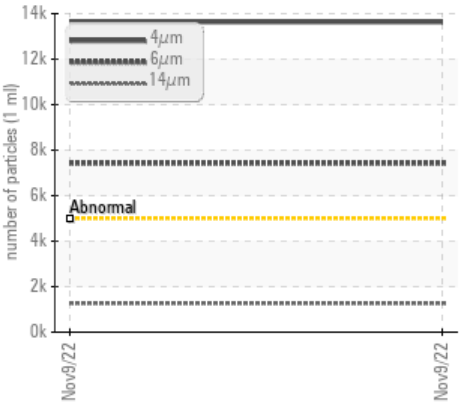
Ferrous Alloys



Glycol Contamination



Particle Trend



RECOMMENDATION

Recommend drain cooling water if not already done and flush with cleaner before refilling with cooling water. We advise that you add cooling water treatment chemicals to combat corrosion per manufacturer`s recommendations.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Iron	ppm	ASTM D5185m		**121**	---	---
Chlorine	ppm	ASTM D5185m		**262**	---	---
Particles >4µm		ASTM D7647	>5000	**13632**	---	---
Particles >6µm		ASTM D7647	>1300	**7426**	---	---
Particles >14µm		ASTM D7647	>160	**1264**	---	---
Particles >21µm		ASTM D7647	>40	**426**	---	---
Particles >38µm		ASTM D7647	>10	**66**	---	---
Particles >71µm		ASTM D7647	>3	**7**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**21/20/17**	---	---
Sodium	ppm	ASTM D5185m		**113**	---	---
Hardness	mg/L CaCO3	*In-house	<75	**165**	---	---
PrtFilter					*no image*	*no image*

Customer Id: THRFAI
Sample No.: USP242073
Lab Number: 05697200
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Aaron Black +1
aaron.black@wearcheck.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

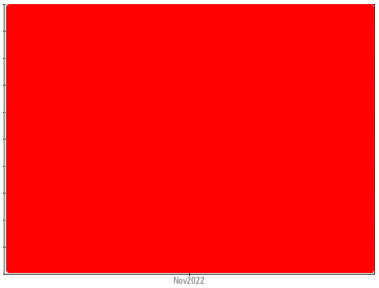
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain cooling water if not already done and flush with cleaner before refilling with cooling water.
Flush System	---	---	?	Recommend drain cooling water if not already done and flush with cleaner before refilling with cooling water.
Service/change Fluid	---	---	?	We advise that you replenish the supplemental coolant additives (SCAs) and add per manufacturer's recommendations.

HISTORICAL DIAGNOSIS

COOLANT REPORT

Sample Rating Trend



WEAR

Machine Id
LOOP - COLD SIDE
Component
Cooling Water
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

Recommend drain cooling water if not already done and flush with cleaner before refilling with cooling water. We advise that you add cooling water treatment chemicals to combat corrosion per manufacturer`s recommendations.

Wear

The iron level is high indicating rust in the system which clogs the cooling system.

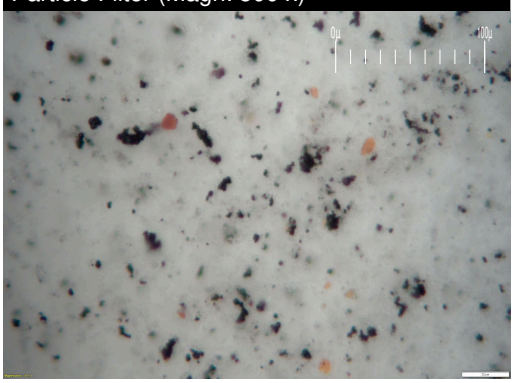
Contamination

There is a high amount of particulates present in the cooling water. High concentration of visible sediment present as ferrous oxides (rust) in the cooling water. The high sodium (Na) and chlorine (Cl) levels indicate the possible presence of salt water. Chlorine measured at 262 ppm. Water hardness level is very high at 165 ppm.

Fluid Condition

The pH level of this fluid is within the acceptable limits at 7.5.

Particle Filter (Magn: 500 x)



SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP242073**	---	---
Sample Date		Client Info		**09 Nov 2022**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

PHYSICAL TEST RESULTS		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		**1.000**	---	---
pH	Scale 0-14	ASTM D1287		**7.46**	---	---
Nitrites	ppm	AP-053:2009		**0**	---	---
Reserve Alkalinity	Scale 0-20	*ASTM D1121		**---**	---	---
Percentage Glycol	%	ASTM D3321		**0.0**	---	---
Freezing Point	°F	ASTM D3321		**---**	---	---
Total Dissolved Solids				**17.0**	---	---
Carboxylate				**n/a**	---	---

CORROSION INHIBITORS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		**0**	---	---
Phosphorus	ppm	ASTM D5185m		**0**	---	---
Boron	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**3**	---	---

CORROSION		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		**121**	---	---
Aluminum	ppm	ASTM D5185m		**<1**	---	---
Copper	ppm	ASTM D5185m		**2**	---	---
Lead	ppm	ASTM D5185m		**<1**	---	---
Tin	ppm	ASTM D5185m		**0**	---	---
Zinc	ppm	ASTM D5185m		**3**	---	---

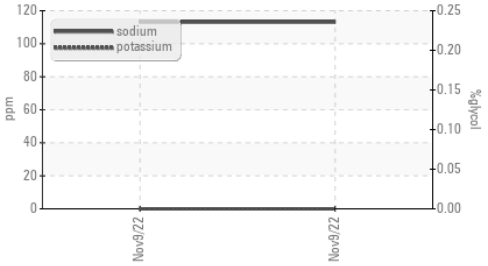
CONTAMINANTS		method	limit/base	current	history1	history2
Chlorine	ppm	ASTM D5185m		**262**	---	---
Particles >4µm		ASTM D7647	>5000	**13632**	---	---
Particles >6µm		ASTM D7647	>1300	**7426**	---	---
Particles >14µm		ASTM D7647	>160	**1264**	---	---
Particles >21µm		ASTM D7647	>40	**426**	---	---
Particles >38µm		ASTM D7647	>10	**66**	---	---
Particles >71µm		ASTM D7647	>3	**7**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**21/20/17**	---	---

CARRIER SALTS		method	limit/base	current	history1	history2
Sodium	ppm	ASTM D5185m		**113**	---	---
Potassium	ppm	ASTM D5185m		**0**	---	---

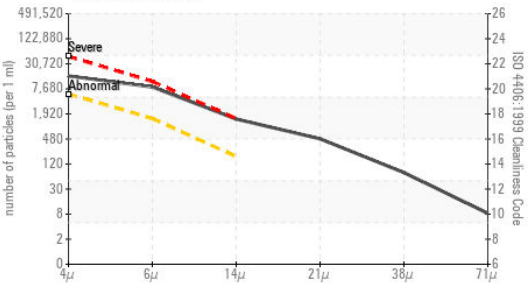
SCALE POTENTIAL		method	limit/base	current	history1	history2
Calcium	ppm	ASTM D5185m	>100	**40**	---	---
Magnesium	ppm	ASTM D5185m	>40	**16**	---	---
Hardness	mg/L CaCO3	*In-house	<75	**165**	---	---

COOLANT REPORT

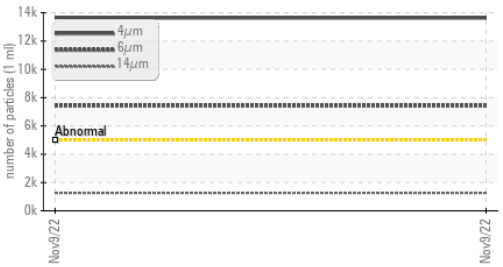
Glycol Contamination



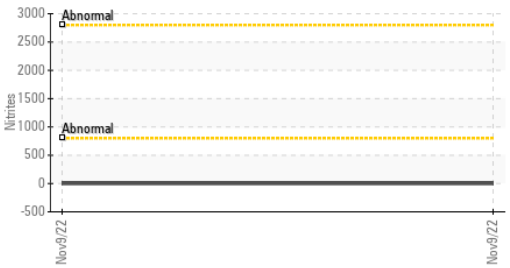
Particle Count



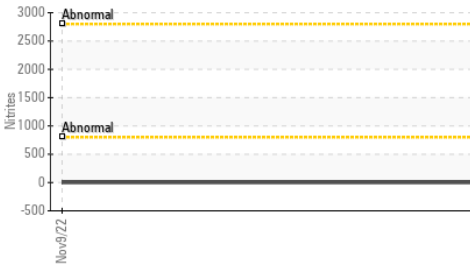
Particle Trend

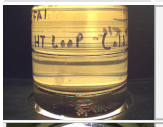
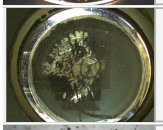
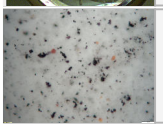


Nitrites



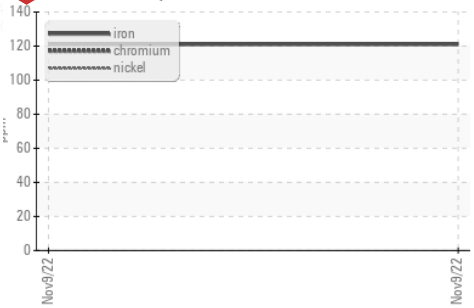
Nitrites



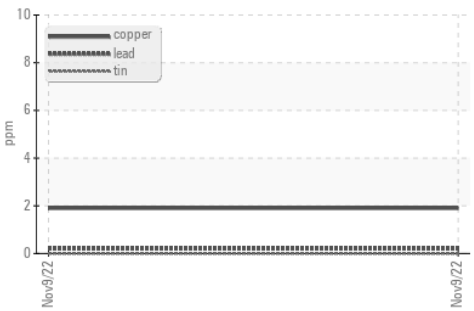
VISUAL		method	limit/base	current	history1	history2
Coolant Color		*Visual		**Black**	---	---
Coolant Appearance		*Visual	Clear	**normal**	---	---
Color					*no image*	*no image*
Bottom					*no image*	*no image*
PrtFilter					*no image*	*no image*

GRAPHS

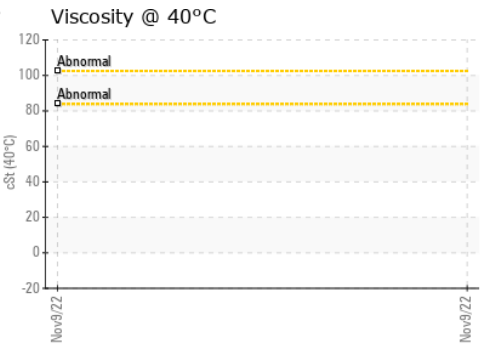
Ferrous Alloys



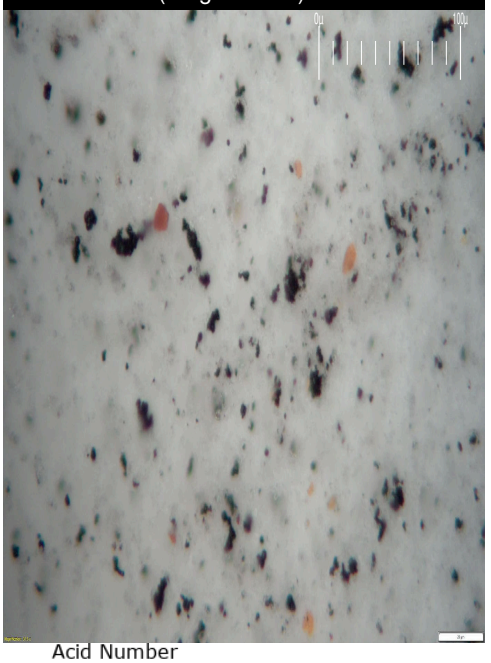
Non-ferrous Metals



Viscosity @ 40°C



Particle Filter (Magn: 500 x)



Acid Number

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP242073 **Received** : 17 Nov 2022
Lab Number : 05697200 **Diagnosed** : 23 Nov 2022
Unique Number : 10221773 **Diagnostician** : Aaron Black
Test Package : IND 2 (Additional Tests: BOTTOM, BottomAnalysis, COOL, FILTERPATCH, HARDNESS, pH)

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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