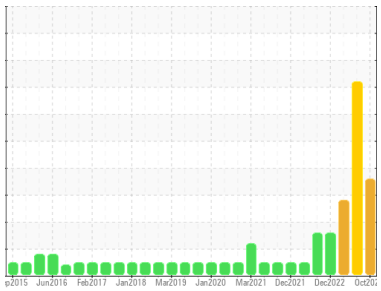
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
HARRIS HRB10 HRB (S/N 2887)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
The iron level is abnormal. The aluminum level is abnormal.

Contamination
There is a high amount of particulates present in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PTK0004143**	PTK0004505	PTK0004152
Sample Date		Client Info		**12 Oct 2023**	13 Sep 2023	03 Jul 2023
Machine Age	hrs	Client Info		**28926**	28863	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	▲ **41**	▲ 40	▲ 40
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**1**	2	1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	▲ **10**	▲ 10	▲ 11
Lead	ppm	ASTM D5185m	>10	**2**	3	2
Copper	ppm	ASTM D5185m	>75	**18**	19	18
Tin	ppm	ASTM D5185m	>10	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	0	0
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	25	**35**	42	42
Calcium	ppm	ASTM D5185m	200	**44**	40	41
Phosphorus	ppm	ASTM D5185m	300	**279**	306	296
Zinc	ppm	ASTM D5185m	370	**294**	338	337
Sulfur	ppm	ASTM D5185m	2500	**3859**	4795	4571

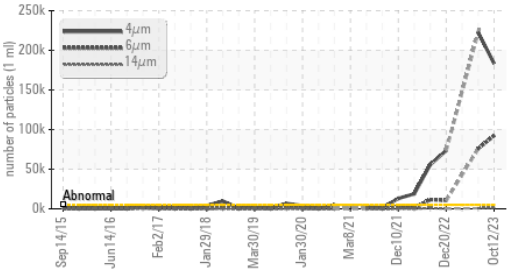
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**11**	11	11
Sodium	ppm	ASTM D5185m		**56**	6	5
Potassium	ppm	ASTM D5185m	>20	**<1**	2	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **183337**	⬢ 222699	---
Particles >6µm		ASTM D7647	>1300	▲ **92433**	⬢ 75860	---
Particles >14µm		ASTM D7647	>160	▲ **945**	▲ 712	---
Particles >21µm		ASTM D7647	>40	▲ **64**	▲ 71	---
Particles >38µm		ASTM D7647	>10	**2**	2	---
Particles >71µm		ASTM D7647	>3	**0**	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **25/24/17**	⬢ 25/23/17	---

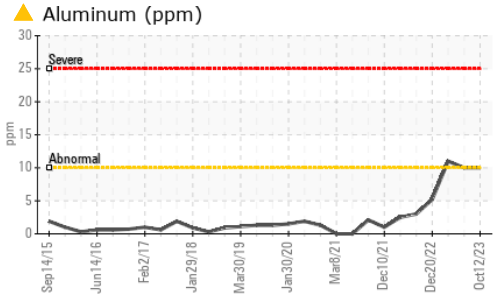
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.66**	0.70	0.68

OIL ANALYSIS REPORT

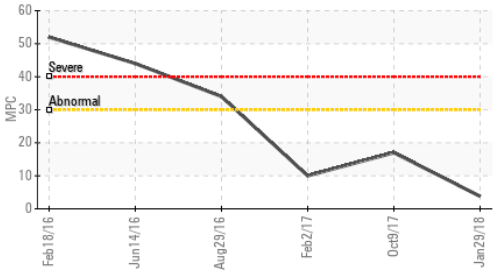
Particle Trend



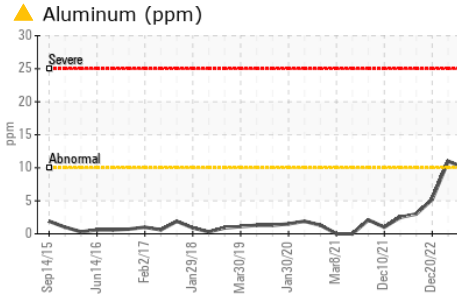
Aluminum (ppm)



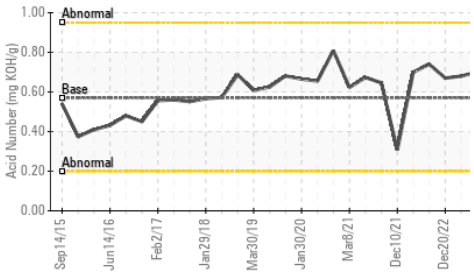
Varnish Potential



Aluminum (ppm)



Acid Number



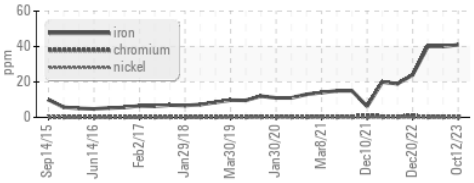
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	▲ LIGHT	▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**45.4**	45.13	45.3

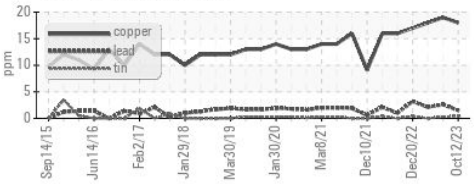
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
MPC			*no image*	*no image*	*no image*

GRAPHS

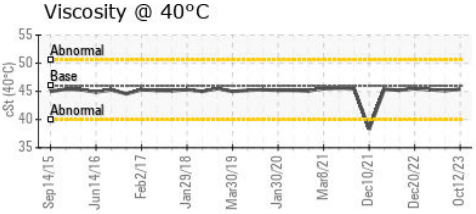
Ferrous Alloys



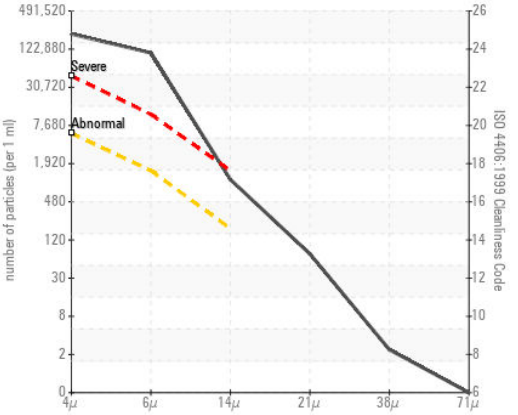
Non-ferrous Metals



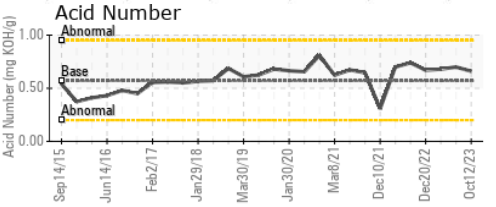
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PTK0004143 **Received** : 13 Oct 2023
Lab Number : 05978853 **Diagnosed** : 17 Oct 2023
Unique Number : 10696148 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: MPC)

Certificate L2367

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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