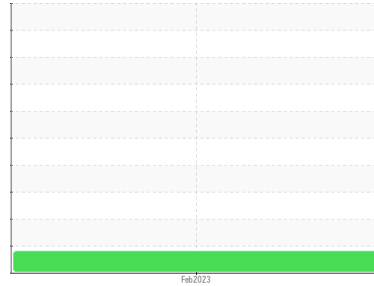




PROBLEM SUMMARY

Sample Rating Trend



ISO



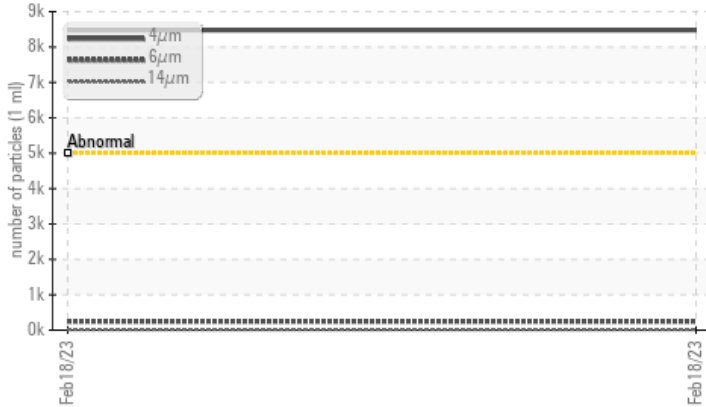
Machine Id
PALFINGER 994 - UNITED RENTALS

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

PROBLEMATIC TEST RESULTS

Sample Status	ATTENTION	---	---
Particles >4µm	ASTM D7647 >5000 ▲ 8475	---	---
Oil Cleanliness	ISO 4406 (c) >19/17/14 ▲ 20/15/11	---	---

Customer Id: PALCAL
Sample No.: WC0780058
Lab Number: 05961721
Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

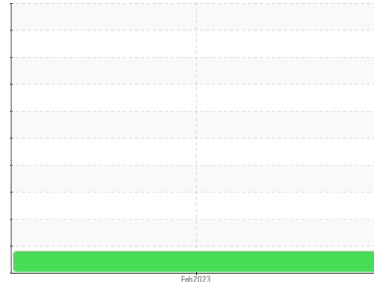
Action	Status	Date	Done By	Description
Alert	---	---	?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.
Information Required	---	---	?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
PALFINGER 994 - UNITED RENTALS

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

Wear

All component wear rates are normal.

▲ Contamination

There is a light amount of silt (particulates < 14 microns in size) 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	WC0780058	---	---
Sample Date	Client Info	18 Feb 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ATTENTION	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>20	3	---	---
Chromium ppm ASTM D5185m	>10	2	---	---
Nickel ppm ASTM D5185m	>10	0	---	---
Titanium ppm ASTM D5185m		<1	---	---
Silver ppm ASTM D5185m		0	---	---
Aluminum ppm ASTM D5185m	>10	3	---	---
Lead ppm ASTM D5185m	>10	0	---	---
Copper ppm ASTM D5185m	>75	2	---	---
Tin ppm ASTM D5185m	>10	<1	---	---
Vanadium ppm ASTM D5185m		<1	---	---
Cadmium ppm ASTM D5185m		<1	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m	5	0	---	---
Barium ppm ASTM D5185m	5	0	---	---
Molybdenum ppm ASTM D5185m	5	0	---	---
Manganese ppm ASTM D5185m		<1	---	---
Magnesium ppm ASTM D5185m	25	1	---	---
Calcium ppm ASTM D5185m	200	48	---	---
Phosphorus ppm ASTM D5185m	300	242	---	---
Zinc ppm ASTM D5185m	370	302	---	---
Sulfur ppm ASTM D5185m	2500	1686	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>20	1	---	---
Sodium ppm ASTM D5185m		1	---	---
Potassium ppm ASTM D5185m	>20	1	---	---

FLUID CLEANLINESS

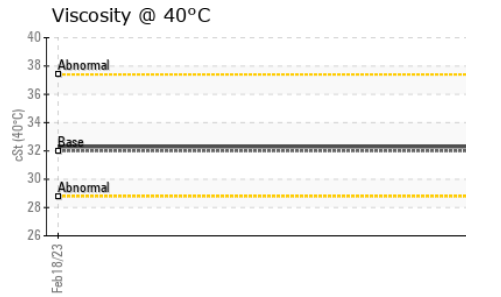
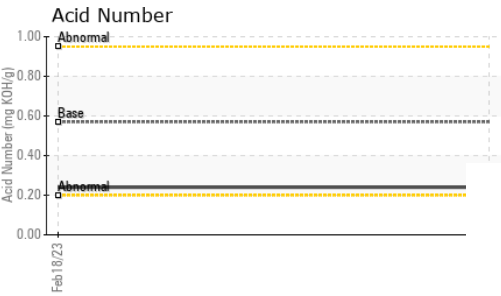
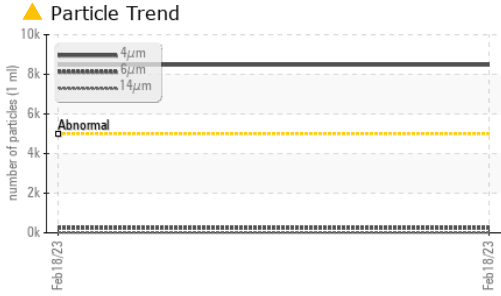
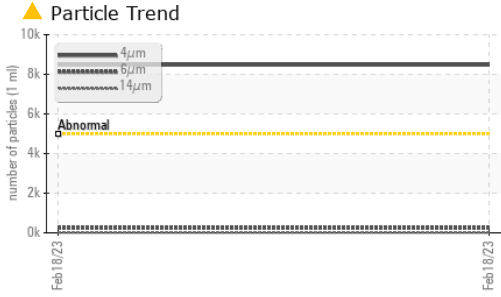
method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>5000	▲ 8475	---	---
Particles >6µm ASTM D7647	>1300	246	---	---
Particles >14µm ASTM D7647	>160	15	---	---
Particles >21µm ASTM D7647	>40	5	---	---
Particles >38µm ASTM D7647	>10	2	---	---
Particles >71µm ASTM D7647	>3	2	---	---
Oil Cleanliness ISO 4406 (c)	>19/17/14	▲ 20/15/11	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045	0.57	0.24	---	---



OIL ANALYSIS REPORT



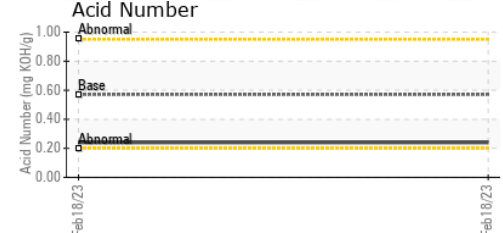
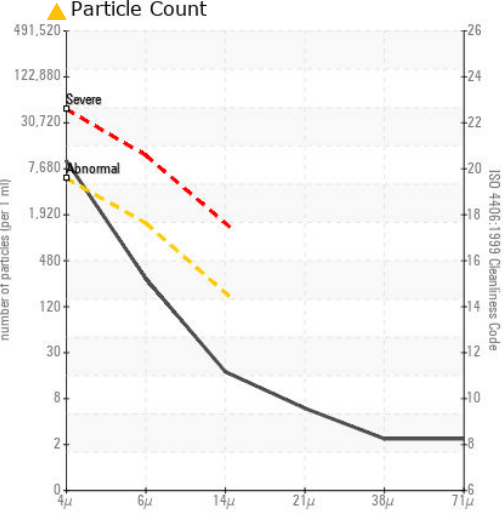
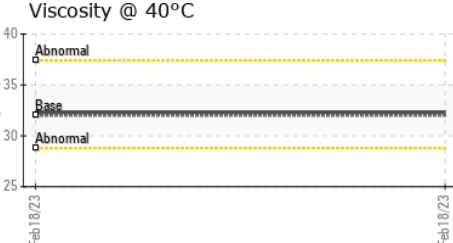
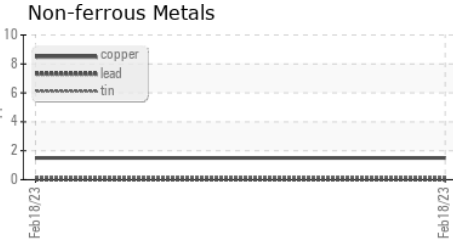
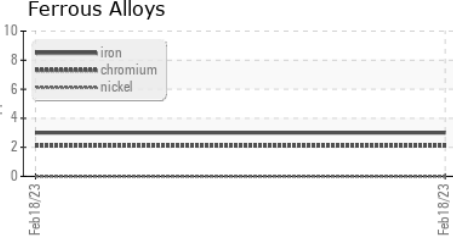
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	32.3	---

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0780058 **Received** : 26 Sep 2023
Lab Number : 05961721 **Diagnosed** : 28 Sep 2023
Unique Number : 10662934 **Diagnostician** : Wes Davis
Test Package : CONST

PALFINGER
 CALIFORNIA 291
 , CA
 US
 Contact: S. GARIBAY
 s.garibay@palfinger.com
 T:
 F:

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)