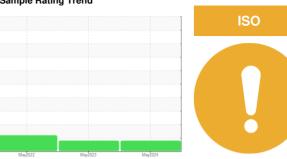


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

PALFINGER 1002015 - FBM

Component Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

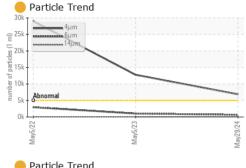
Fluid Condition

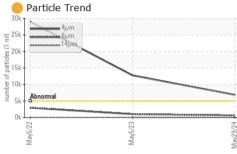
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

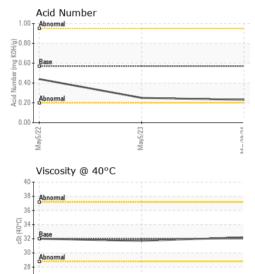
		May2022		May2023 May2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0897226	WC0747165	WC0648871
Sample Date		Client Info		29 May 2024	05 May 2023	05 May 2022
Machine Age	hrs	Client Info		1581	873	0
Oil Age	hrs	Client Info		1581	873	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ATTENTION	ABNORMAL	ABNORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	3	3	<1
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	2	1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVEC			12			history.O
ADDITIVES					history1	nistory∠
ADDITIVES	nnm				history1	history2
Boron	ppm	ASTM D5185m	5	0	0	<1
Boron Barium	ppm	ASTM D5185m ASTM D5185m	5 5	0 0	0	<1 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	5	0 0 0	0 0 <1	<1 0 <1
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5	0 0 0	0 0 <1 <1	<1 0 <1 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25	0 0 0 0	0 0 <1 <1 6	<1 0 <1 0 4
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200	0 0 0 0 2 66	0 0 <1 <1 6 6	<1 0 <1 0 4 71
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300	0 0 0 0 2 66 312	0 0 <1 <1 6 66 359	<1 0 <1 0 4 71 365
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370	0 0 0 0 2 66 312 402	0 0 <1 <1 6 6 66 359 461	<1 0 <1 0 4 71 365 445
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370 2500	0 0 0 0 2 66 312 402	0 0 <1 <1 6 66 359 461 1404	<1 0 <1 0 4 71 365 445 999
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base	0 0 0 0 2 66 312 402 1315	0 0 <1 <1 6 66 359 461 1404 history1	<1 0 <1 0 4 71 365 445 999 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500	0 0 0 0 2 66 312 402 1315 current	0 0 <1 <1 6 66 359 461 1404 history1	<1 0 <1 0 4 71 365 445 999 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 0 0 2 66 312 402 1315 current <1	0 0 <1 <1 6 66 359 461 1404 history1 <1	<1 0 <1 0 4 71 365 445 999 history2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 0 0 2 66 312 402 1315 current	0 0 <1 <1 6 66 359 461 1404 history1	<1 0 <1 0 4 71 365 445 999 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 0 0 2 66 312 402 1315 current <1	0 0 <1 <1 6 66 359 461 1404 history1 <1	<1 0 <1 0 4 71 365 445 999 history2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 0 0 2 66 312 402 1315 current <1 <1	0 0 <1 <1 6 66 359 461 1404 history1 <1 5	<1 0 <1 0 4 71 365 445 999 history2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 >20	0 0 0 0 2 66 312 402 1315 current <1 <1 <1	0 0 <1 <1 6 66 359 461 1404 history1 <1 5 2	<1 0 <1 0 4 71 365 445 999 history2 <1 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 	0 0 0 0 2 66 312 402 1315 current <1 <1 <1 <1	0 0 <1 <1 6 66 359 461 1404 history1 <1 5 2 history1 ▲ 12764	<1 0 <1 0 4 71 365 445 999 history2 <1 0 0 history2 △29017
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm	ASTM D5185m method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300	0 0 0 0 2 66 312 402 1315 current <1 <1 <1 current	0 0 <1 <1 6 66 359 461 1404 history1 <1 5 2 history1 ▲ 12764 1031	<1 0 <1 0 4 71 365 445 999 history2 <1 0 0 history2 ▲ 29017 ▲ 2955
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm	ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160	0 0 0 0 2 66 312 402 1315 current <1 <1 <ur> <ur> <ur> <ur> <ur> 6880 656 62</ur></ur></ur></ur></ur>	0 0 <1 <1 6 66 359 461 1404 history1 <1 5 2 history1 ▲ 12764 1031 51	<1 0 <1 0 4 71 365 445 999 history2 <1 0 0 history2 △ 29017 △ 2955 69
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm	ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 0 0 2 66 312 402 1315 current <1 <1 <1 <1 current 6880 656 62 19	0 0 <1 <1 6 66 359 461 1404 history1 <1 5 2 history1 ▲ 12764 1031 51	<1 0 <1 0 4 71 365 445 999 history2 <1 0 0 history2 ▲ 29017 ▲ 2955 69 21
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm	ASTM D5185m Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 0 0 2 66 312 402 1315 current <1 <1 <1 <1 current 6880 656 62 19	0 0 <1 <1 6 66 359 461 1404 history1 <1 5 2 history1 ▲ 12764 1031 51 15 0	<1 0 <1 0 4 71 365 445 999 history2 <1 0 0 history2 ▲ 29017 ▲ 2955 69 21 1



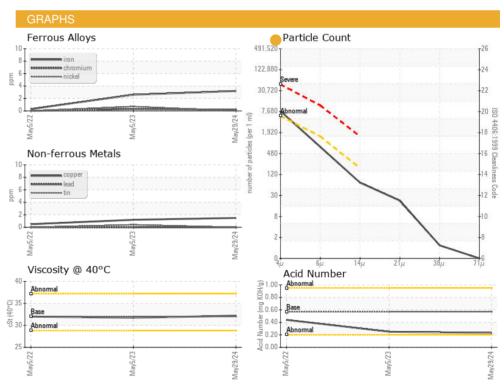
OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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	VLITE
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	32	32.2	31.7	32.0
SAMPLE IMAGES		method	limit/base	current	history1	history2
					\ \	







Laboratory Sample No.

: WC0897226 Lab Number : 06208276 Unique Number : 11075737

Color

Bottom

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Jun 2024 **Tested** : 13 Jun 2024

Diagnosed : 13 Jun 2024 - Wes Davis

Test Package : CONST Certificate 12367 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.

PALFINGER - BRANCH 410

632 CEDAR SWAMP RD JACKSON, NJ

US 08527

Contact: ANTHONY HARTIGAN a.hartigan@palfinger.com

T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: