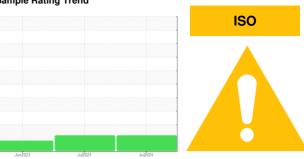


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

PALFINGER SRSN0727 - AMERICAN ROOFING

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

		Jun	2023	Jul2024 Jul203	24	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
	IATION		IIIIII/Dase			•
Sample Number		Client Info		WC0897356	WC0813979	WC0747066
Sample Date Machine Age	lawa	Client Info		14 Jul 2024 0	14 Jul 2024	14 Jun 2023
Oil Age	hrs hrs	Client Info		0	0	0
Oil Changed	1115	Client Info		N/A	N/A	N/A
Sample Status		Chefit iiiio		ABNORMAL	ABNORMAL	ATTENTION
CONTAMINATION		method	limit/base	-		history2
	V			current	history1	,
Water		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	5	12	7
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	<1
Lead	ppm	ASTM D5185m	>10	<1	<1	0
Copper	ppm	ASTM D5185m	>75	1	2	1
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		<1	<1	0
ADDITIVES		method	limit/base	current	hiotonyt	history2
ADDITIVES		memou	IIIIII/Dase	current	history1	Thotory 2
Boron	ppm	ASTM D5185m	5	0	0	0
	ppm ppm					
Boron		ASTM D5185m	5	0	0	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	5 5	0	0	0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	5 5	0 0 <1	0 0 <1	0 0 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5	0 0 <1 <1	0 0 <1 <1	0 0 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 <1 <1 6	0 0 <1 <1 2	0 0 0 0 <1
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 <1 <1 6	0 0 <1 <1 2 54	0 0 0 0 <1 63
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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 <1 <1 6 57 257	0 0 <1 <1 2 54 322	0 0 0 0 <1 63 359
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm 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 <1 <1 6 57 257	0 0 <1 <1 2 54 322 443	0 0 0 0 <1 63 359 452
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 <1 <1 6 57 257 348 852	0 0 <1 <1 2 54 322 443 1796	0 0 0 0 <1 63 359 452 2894
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm 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 <1 <1 6 57 257 348 852 current	0 0 <1 <1 2 54 322 443 1796 history1	0 0 0 0 <1 63 359 452 2894 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 <1 <1 6 57 257 348 852 current	0 0 <1 <1 2 54 322 443 1796 history1	0 0 0 0 <1 63 359 452 2894 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 <1 <1 6 57 257 348 852 current 1	0 0 <1 <1 2 54 322 443 1796 history1 2	0 0 0 0 <1 63 359 452 2894 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 <1 <1 6 57 257 348 852 current 1 0 <1	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1	0 0 0 0 <1 63 359 452 2894 history2 2 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 limit/base >5000	0 0 <1 <1 <1 6 57 257 348 852 current 1 0 <1 current 21167	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1	0 0 0 0 <1 63 359 452 2894 history2 2 1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300	0 0 <1 <1 <1 6 57 257 348 852 current 1 0 <1 current 421167 4225	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1 ▲ 16544 ■ 1887	0 0 0 0 <1 63 359 452 2894 history2 2 1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm 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 <1 <1 <1 6 57 257 348 852 current 1 0 <1 current 421167 4225 128	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1 △ 16544 ○ 1887 100	0 0 0 0 0 <1 63 359 452 2894 history2 2 1 0 history2 6670 832 71
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm 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	0 0 <1 <1 <1 6 57 257 348 852 current 1 0 <1 current 21167 4225 128 31	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1 △ 16544 ○ 1887 100 30	0 0 0 0 -1 63 359 452 2894 history2 2 1 0 history2 6670 832 71
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm 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 <1 <1 <1 6 57 257 348 852 current 1 0 <1 current 4 21167 4225 128 31 1	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1 ▲ 16544 ● 1887 100 30 2	0 0 0 0 -1 63 359 452 2894 history2 2 1 0 history2 6670 832 71 19
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 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 >3	0 0 <1 <1 <1 6 57 257 348 852	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1 △ 16544 ○ 1887 100 30	0 0 0 0 0 <1 63 359 452 2894 history2 2 1 0 history2 6670 832 71 19 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >5µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm 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 <1 <1 <1 6 57 257 348 852 current 1 0 <1 current 4 21167 4225 128 31 1	0 0 <1 <1 2 54 322 443 1796 history1 2 0 1 history1 ▲ 16544 ■ 1887 100 30 2 0	0 0 0 0 -1 63 359 452 2894 history2 2 1 0 history2 6670 832 71 19

Acid Number (AN)

mg KOH/g ASTM D8045 0.57

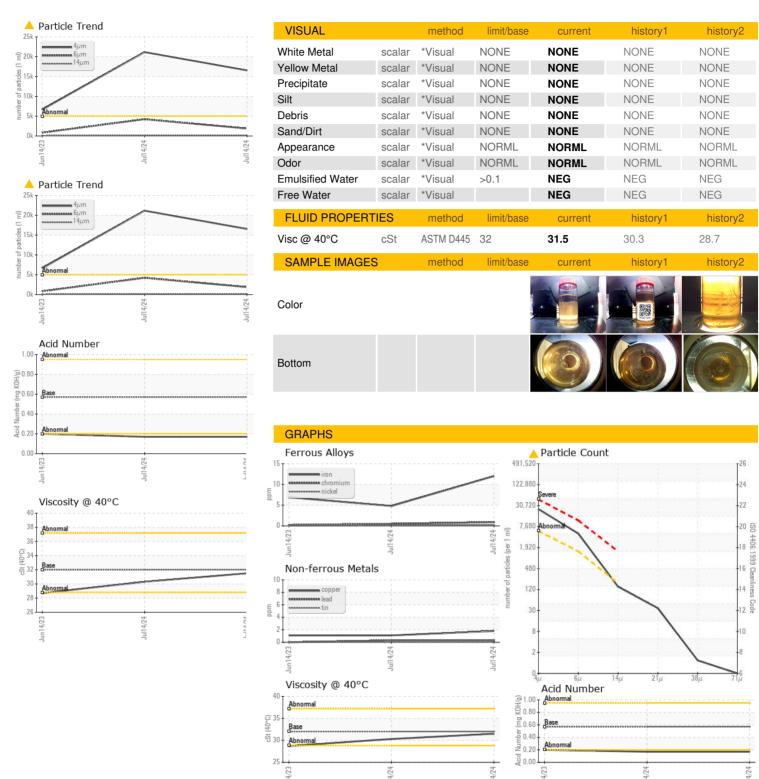
0.17

0.17

0.20



OIL ANALYSIS REPORT







Certificate 12367

Report Id: PALTIF [WUSCAR] 06235888 (Generated: 07/16/2024 09:36:56) Rev: 1

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0897356 Lab Number : 06235888 Unique Number : 11124722 Test Package : CONST

To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Received : 15 Jul 2024 **Tested** : 16 Jul 2024 Diagnosed

: 16 Jul 2024 - Wes Davis

TIFFIN, OH US 44883 Contact: ERIC HILL e.hill@palfinger.com T: (419)448-8156

PALFINGER - BRANCH 400

4151 W ST RT 18

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

Contact/Location: ERIC HILL - PALTIF