

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id PALFINGER 100460988

Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

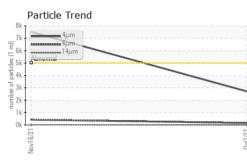
Fluid Condition

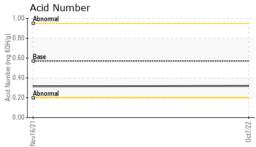
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

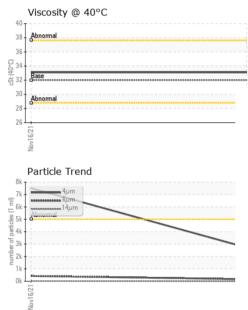
			Nov2021	Oct2022		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0695579	WC0597872	
Sample Date		Client Info		07 Oct 2022	16 Nov 2021	
Machine Age	hrs	Client Info		435	435	
Oil Age	hrs	Client Info		435	435	
Oil Changed		Client Info		N/A	Filtered	
Sample Status				NORMAL	ATTENTION	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	2	
Chromium	ppm	ASTM D5185m	>10	<1	<1	
Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m		0	<1	
Aluminum	ppm	ASTM D5185m	>10	<1	0	
Lead	ppm	ASTM D5185m	>10	0	0	
Copper	ppm	ASTM D5185m		2	2	
Tin		ASTM D5185m	>10	2 <1	0	
	ppm	ASTM D5185m	>10	<1	0	
Antimony Vanadium	ppm					
	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	3	
Barium	ppm	ASTM D5185m	5	<1	0	
Molybdenum	ppm	ASTM D5185m	5	<1	<1	
Manganese	ppm	ASTM D5185m		<1	0	
Magnesium	ppm	ASTM D5185m	25	5	4	
Calcium	ppm	ASTM D5185m	200	52	56	
Phosphorus	ppm	ASTM D5185m	300	307	334	
Zinc	ppm	ASTM D5185m	370	402	420	
Sulfur	ppm	ASTM D5185m	2500	1681	1578	
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	3	2	
Sodium	ppm	ASTM D5185m		<1	<1	
Potassium	ppm	ASTM D5185m	>20	0	0	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	2713	A 7515	
Particles >6µm		ASTM D7647	>1300	160	427	
Particles >14µm		ASTM D7647	>160	6	20	
Particles >21µm		ASTM D7647	>40	2	7	
Particles >38µm		ASTM D7647	>10	0	0	
Particles >71μm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/14/10	▲ 20/16/11	
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.32	0.315	
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White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE	
Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE	NONE NONE	
Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE	NONE NONE	NONE	
Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar	*Visual *Visual *Visual	NONE	NONE		
Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar	*Visual *Visual			NONE	
Appearance Odor Emulsified Water	scalar scalar	*Visual	NONE			
Odor Emulsified Water	scalar		NODM		NONE	
Emulsified Water		VISUAL	NORML	NORML	NORML	
	Scalai	*Visual	NORML	NORML NEG	NEG	
	scalar	*Visual	20.1	NEG	NEG	
FLUID PROPER		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	33.1	33.1	
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color						no image
Bottom						no image
				P- Hill C- H		
10 _T			491,520	Particle Count		т ²⁶
8 - iron			122.000			
C management pickel			122,000	Severe		-24
			30,720			-22
				Abnormal		-20
16/21			r1 ml)			18
Nov			0 d			
			8		`	10
Non-ferrous Meta	ls		480			-16
10 copper	ls		 5 12 120	1.		-16
10 8 International copper	ls		numb	1.		-16
8 copper lead	ls		120 120 120 120 120 120 120 120 120	1.		+16 +14 +12
10 8 International copper	ls		numb	1.		-16 -14 -12 -10
10 8 6 4 2 0	ls		30	1.		-16 -14 -12 -10 -8
10 8 International copper	ls		numb			-12 -10 -8 6
Viscosity @ 40°C	ls		30 30 8 7 7 7 7 7 7 7 7 9 9 9 4	Acid Number	14μ 21μ	10 -16 -14 -12 -10 -8
10 8 6 4 2 0 12 10 10 10 10 10 10 10 10 10 10	ls		30 30 77 77 77 77 77 77 77 77 77 77 77 77 74	ри 6 _ј μ	14μ 21μ	-12 -10 -8 6
10 10 10 10 10 10 10 10 10 10	ls		06 06 06 04 00 04 00 04 00 04 04 00 04 04 00 04 00 04 00 04 00 04 00 04 00 04 00 04 00 04 00 00	Acid Number	14μ 21μ	-12 -10 -8 6
Viscosity @ 40°C	ls		06 06 06 04 00 04 00 04 00 04 04 00 04 04 00 04 00 04 00 04 00 04 00 04 00 04 00 04 00 04 00 00	Acid Number	14μ 21μ	-12 -10 -8 6
Viscosity @ 40°C	ls		06 06 06 04 00 04 00 04 00 04 04 00 04 04 00 04 00 04 00 04 00 04 00 04 00 04 00 04 00 04 00 00	Acid Number	14μ 21μ	+20 +18 +16 +14 +12 +10 +8 -38μ -71μ
Viscosity @ 40°C	ls		30 30 77 77 77 77 77 77 77 77 77 77 77 77 74	Acid Number	14μ 21μ	-12 -10 -8 6
	SAMPLE IMAGE Color Bottom GRAPHS Ferrous Alloys	SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	SAMPLE IMAGES method Color Bottom GRAPHS Ferrous Alloys	SAMPLE IMAGES method limit/base Color Imit/base Bottom Imit/base GRAPHS Imit/base Ferrous Alloys 491,520 Imit/base 122,880 Imit/base 30,720 Imit/base 7,680	SAMPLE IMAGES method limit/base current Color Image: Color Image: Color Image: Color Bottom Image: Color Image: Color Image: Color Bottom Image: Color Image: Color Image: Color Bottom Image: Color Image: Color Image: Color GRAPHS Ferrous Alloys Particle Count Image: Color Image: Color Image: Color Image: Color Image: Color Image: Color	SAMPLE IMAGES method imit/base current history1 Color Imit/base Imit/base Imit/base Imit/base Bottom Imit/base Imit/base Imit/base Imit/base GRAPHS Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base

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Submitted By: TECHNICIAN ACCOUNT