

OIL ANALYSIS REPORT



Machine Id

IMM122 Component Hydraulic System Fluid MOBIL DTE 10 EXCEL 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done.

A Wear

Copper and iron ppm levels are abnormal. Cylinder or oil pump wear indicated.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0887707	WCI2287361	
Sample Date		Client Info		12 Jan 2024	01 Feb 2018	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	4 1	4 21	
Chromium	ppm	ASTM D5185m	>20	1	<1	
Nickel	ppm	ASTM D5185m	>20	<1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>20	2	<1	
Lead	ppm	ASTM D5185m	>20	<1	3	
Copper	ppm	ASTM D5185m	>20	<u> </u>	<u> </u>	
Tin	ppm	ASTM D5185m	>20	<1	<1	
Antimony	ppm	ASTM D5185m			0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1	
Barium	ppm	ASTM D5185m		8	5	
Molybdenum	ppm	ASTM D5185m		0	0	
Manganese	ppm	ASTM D5185m		<1	<1	
Magnesium	ppm	ASTM D5185m		1	0	
Calcium	ppm	ASTM D5185m		103	102	
Phosphorus	ppm	ASTM D5185m		510	456	
Zinc	ppm	ASTM D5185m		703	657	
Sulfur	ppm	ASTM D5185m		5574	5686	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1	<1	
Sodium	ppm	ASTM D5185m		2	4	
Potassium	ppm	ASTM D5185m	>20	2	2	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	6740	🔺 116814	
Particles >6µm		ASTM D7647	>1300	569	1 7511	
Particles >14µm		ASTM D7647	>160	12	4 983	
Particles >21µm		ASTM D7647	>40	2	A 282	
Particles >38µm		ASTM D7647	>10	0	A 36	

ASTM D7647 >3

0

ISO 4406 (c) >19/17/14 **23/16/11**

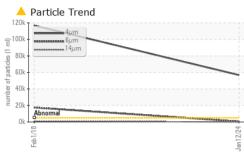
Particles >71µm

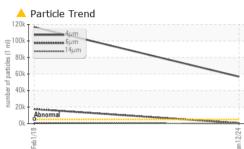
Oil Cleanliness

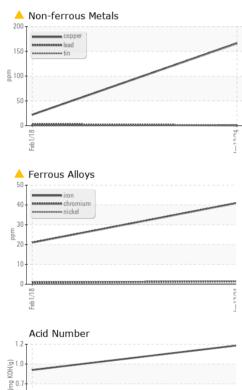
▲ 24/21/17

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umper 0.5 Pio 0.2 0.0 Feb1

OIL ANALYSIS REPORT

	Acid Number (AN)	mg KOH/g	ASTM D8045		1.185	0.888	
	VISUAL	3 9	method	limit/base	current	history1	history
	White Metal	cooler	*Visual	NONE		NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE NONE	NONE	
	Precipitate	scalar scalar	*Visual	NONE	NONE	NONE	
27.	Silt	scalar	*Visual	NONE	NONE	NONE	
Jan 12/24	Debris	scalar	*Visual	NONE	NONE	▲ MODER	
2	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
-	FLUID PROPER	TIES	method	limit/base	current	history1	history
	Visc @ 40°C	cSt	ASTM D445	45.6	46.2	46.53	
2/24	SAMPLE IMAGE		method	limit/base	current	history1	history
Jan12/24	Color				. 60.		no image
	Bottom						no image
	GRAPHS						
4 C C F	Alloys				Particle Count	:	
	60 iron			491,520			
	40 - E. nickel			122,880	Severe		
	20-			30,720	1		-
	0			± = 7,680	Abnonnal		-
	Feb1/18			Jan 12/24 1066 1 ml			
		le.		Jan 12/24- 1301 (per 1 m) 480- 480-	1.		
	🔺 Non-ferrous Meta	15		E +00.			
	200 T					S	
				- uper of pa			
Part of the second s	200 Copper 1						
5 C C T - 1	200 - copper 150 - lead 50 - 50 - copper			120-			
A C C	200 150 50 0 0			20 120- 30. 8-			
40.01-1	200 - copper 150 - lead 50 - 50 - copper			120-			
ACC11	Viscosity @ 40°C			јо 120 120 30 67 72 120 30 8 8 72 72 120 30 30 8 72 7 2 4	Acid Number	14μ 21μ	
1-1204	Viscosity @ 40°C			јо 120 120 30 67 72 120 30 8 8 72 72 120 30 30 8 72 7 2 4	μ 6μ Acid Number	14μ 21μ	
	Viscosity @ 40°C			јо 120 120 30 67 72 120 30 8 8 72 72 120 30 30 8 72 7 2 4	بر قبل Acid Number	14μ 21μ	
40 C L 1	Viscosity @ 40°C			јо 120 120 30 67 72 120 30 8 8 72 72 120 30 30 8 72 7 2 4	بر قنام Acid Number	14μ 21μ	
and the second se	Viscosity @ 40°C			јо 120 120 30 67 72 120 30 8 8 72 72 120 30 30 8 72 7 2 4		14μ 21μ	
	Viscosity @ 40°C			Jo 120 Jo 120 10 mupped 120 120 120 120 120 120 120 120		14μ 21μ	
	Viscosity @ 40°C			јо 120 120 30 67 72 120 30 8 8 72 72 120 30 30 8 72 7 2 4	Acid Number	14μ 21μ	

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

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Contact/Location: BILLY CARDER - SUMSCO

F: (270)237-9476