

Machine Id MOFFETT 16192 Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The iron level is abnormal. All other component wear rates are normal.

CONTAMINATION

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

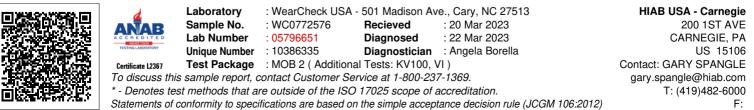
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FLUID CONDITION

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0772576		
Sample Date		Client Info		07 Mar 2023		
Machine Age	hrs	Client Info		852		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				ABNORMAL		
Iron	ppm	ASTM D5185m	>20	🔺 25		
Chromium	ppm	ASTM D5185m	>10	1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	<1		
Lead	ppm	ASTM D5185m	>10	<1		
Copper	ppm	ASTM D5185m	>75	2		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>20	2		
Potassium	ppm	ASTM D5185m	>20	0		
Water		WC Method	>0.1	NEG		
Particles >4µm		ASTM D7647	>5000	<u> </u>		
Particles >6µm		ASTM D7647	>1300	903		
Particles >14µm		ASTM D7647	>160	11		
Particles >21µm		ASTM D7647	>40	3		
Particles >38µm		ASTM D7647	>10	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<u> </u>		
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		
Sodium	nnm	ASTM D5185m		2		
Boron	ppm	ASTM D5185m	5	2		
Barium	ppm	ASTM D5185m	5	0		
Molybdenum	ppm ppm	ASTM D5185m	5	۰ <1		
Manganese		ASTM D5185m	0	<1 <1		
Magnesium	ppm ppm	ASTM D5185m	25	1		
Calcium	ppm	ASTM D5185m	200	39		
Phosphorus	ppm	ASTM D5185m	300	269		
Zinc	ppm	ASTM D5185m	370	340		
Sulfur	ppm	ASTM D5185m	2500	2646		
Acid Number (AN)	mg KOH/g	ASTM D3103III	0.57	0.27		
Visc @ 40°C	cSt	ASTM D0045 ASTM D445	32	▲ 42.5		
Visc @ 100°C	cSt	ASTM D445	5.4	7		
Viscosity Index (VI)	Scale	ASTM D2270	102	123		
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Contact/Location: GARY SPANGLE - HIACAR