

## Machine Id HITACHI HCMJAG60K00061550 Component Hydraulic System Fluid HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEA	R	

All component wear rates are normal.

## CONTAMINATION

There is a moderate amount of particulates present in the oil.

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0202317		
Sample Date		Client Info		28 Feb 2024		
Machine Age	hrs	Client Info		2059		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Changed		
Sample Status				ATTENTION		
PQ		ASTM D8184		13		
Iron	ppm	ASTM D5185m	>20	2		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	0		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>75	<1		
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	<1		
Potassium	ppm	ASTM D5185m	>20	0		
Water		WC Method	>0.1	NEG		
Particles >4µm		ASTM D7647	>5000	9808		
Particles >6µm		ASTM D7647	>1300	2408		
Particles >14µm		ASTM D7647	>160	<b>179</b>		
Particles >21µm		ASTM D7647	>40	47		
Particles >38µm		ASTM D7647	>10	3		
Particles >71um		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>20/18/15</b>		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORMI	NORMI		
Odor	scalar	*Visual	NORMI	NORML		
Emulsified Water	scalar	*Visual	>0.1	NEG		
	ooului		20.1			
Sodium	ppm	ASTM D5185m		<1		
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		3		
Calcium	mag	ASTM D5185m		27		
Phosphorus	mag	ASTM D5185m	827	278		
Zinc	ppm	ASTM D5185m	0	37		
Sulfur	ppm	ASTM D5185m	13	1664		
Acid Number (AN)	ma KOH/a	ASTM D8045	0.06	0.16		
Visc @ 40°C	cSt	ASTM D445	47	44.7		





Submitted By: JOHN GUASCHINO

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