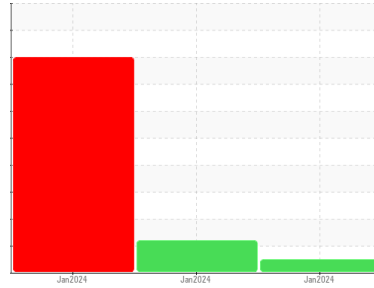




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
70010

Component
Hoist

Fluid
HITACHI SUPER EH56HBW (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0876934	WC0876932	WC0876931
Sample Date	Client Info			16 Jan 2024	12 Jan 2024	04 Jan 2024
Machine Age	hrs	Client Info		0	0	4
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	3	4	6
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	1	1	2
Lead	ppm	ASTM D5185(m)	>20	0	<1	0
Copper	ppm	ASTM D5185(m)	>20	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

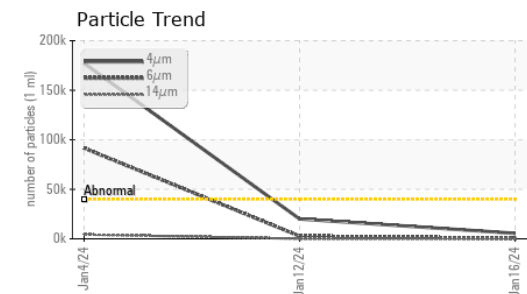
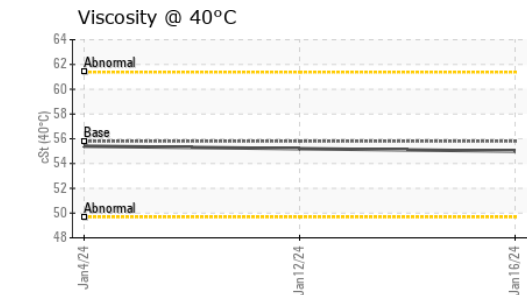
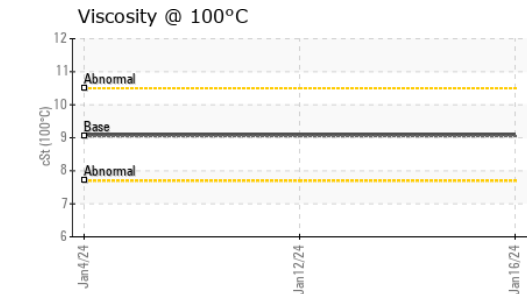
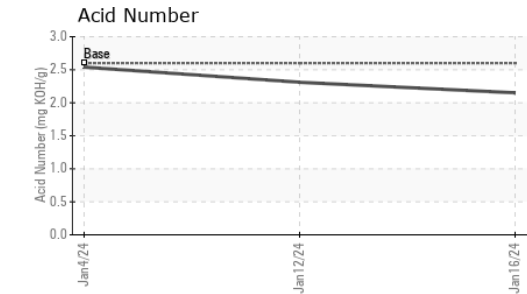
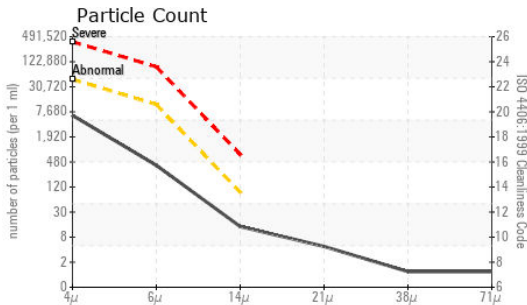
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		547	568	548
Calcium	ppm	ASTM D5185(m)		2759	2810	2695
Phosphorus	ppm	ASTM D5185(m)		1032	1052	993
Zinc	ppm	ASTM D5185(m)		1134	1155	1107
Sulfur	ppm	ASTM D5185(m)		3865	3801	3609
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	7	10	12
Sodium	ppm	ASTM D5185(m)		0	0	<1
Potassium	ppm	ASTM D5185(m)	>20	2	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>40000	5522	▲ 20053	● 177220
Particles >6µm		ASTM D7647	>10000	351	▲ 2733	● 91602
Particles >14µm		ASTM D7647	>80	12	49	● 4324
Particles >21µm		ASTM D7647	>20	4	10	● 580
Particles >38µm		ASTM D7647	>4	1	3	▲ 15
Particles >71µm		ASTM D7647	>3	1	1	1
Oil Cleanliness		ISO 4406 (c)	>22/20/13	20/16/11	▲ 22/19/13	● 25/24/19



OIL ANALYSIS REPORT

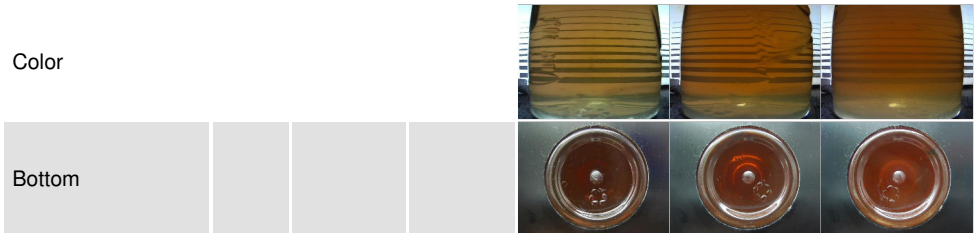


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.6	2.15	2.31	2.54

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	55.8	55.0	55.2	55.4
Visc @ 100°C	cSt	ASTM D7279(m)	9.05	9.1	9.1	9.1
Viscosity Index (VI)	Scale	ASTM D2270*	142	146	145	144

SAMPLE IMAGES		method	limit/base	current	history1	history2
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ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **HITACHI TRUCK MANUFACTURING**
Sample No. : WC0876934 **Received** : 18 Jan 2024 **200 WOODLAWN ROAD WEST**
Lab Number : 02609701 **Diagnosed** : 19 Jan 2024 **GUELPH, ON**
Unique Number : 5710787 **Diagnostician** : Kevin Marson **CA N1H 1B6**
Test Package : IND 2 (Additional Tests: KV100, VI) **Contact: Cal Banman**

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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