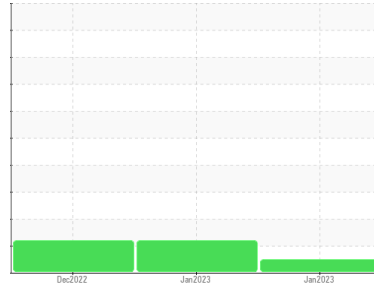




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**11050**

Component  
**Hydraulic System**

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			<b>WC0753455</b>	WC0753454	WC0753801
Sample Date	Client Info			<b>30 Jan 2023</b>	05 Jan 2023	22 Dec 2022
Machine Age	hrs	Client Info		<b>7</b>	0	8
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	ABNORMAL

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

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

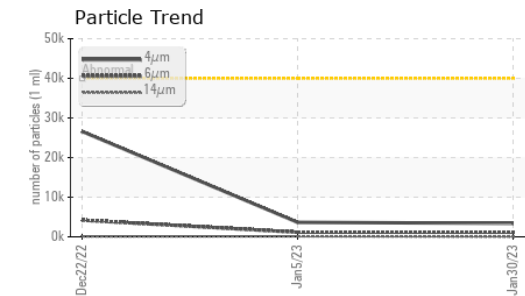
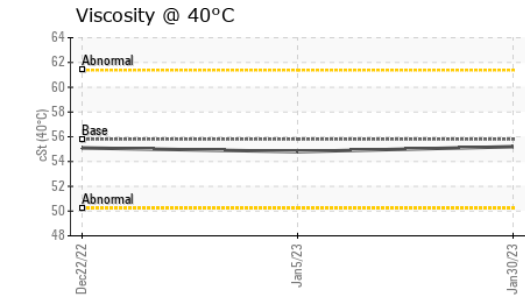
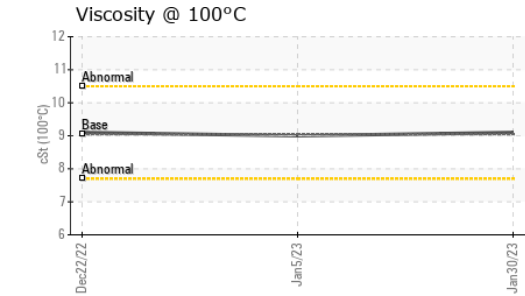
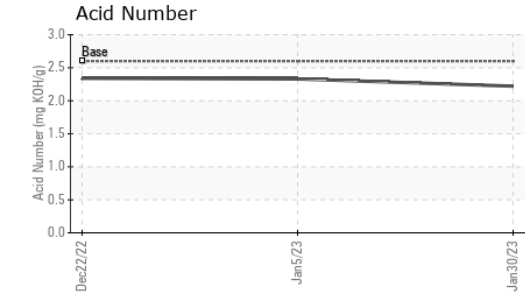
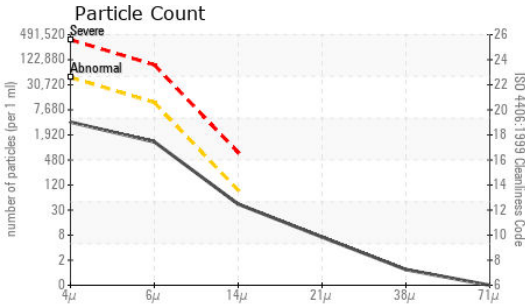
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>558</b>	563	551
Calcium	ppm	ASTM D5185(m)		<b>2882</b>	2998	2832
Phosphorus	ppm	ASTM D5185(m)		<b>1096</b>	1113	1085
Zinc	ppm	ASTM D5185(m)		<b>1169</b>	1191	1131
Sulfur	ppm	ASTM D5185(m)		<b>3465</b>	3563	3413
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>5</b>	6	9
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>40000	<b>3402</b>	3654	▲ 26603
Particles >6µm		ASTM D7647	>10000	<b>1147</b>	1153	▲ 4205
Particles >14µm		ASTM D7647	>80	<b>37</b>	▲ 124	99
Particles >21µm		ASTM D7647	>20	<b>6</b>	▲ 37	17
Particles >38µm		ASTM D7647	>4	<b>1</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/13	<b>19/17/12</b>	▲ 19/17/14	▲ 22/19/14



# OIL ANALYSIS REPORT

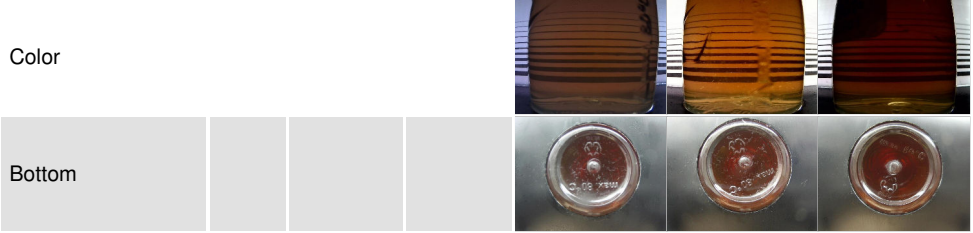


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.6	<b>2.22</b>	2.33	2.34

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	55.8	<b>55.2</b>	54.8	55.1
Visc @ 100°C	cSt	ASTM D7279(m)	9.05	<b>9.1</b>	9	9.1
Viscosity Index (VI)	Scale	ASTM D2270*	142	<b>145</b>	143	145

## SAMPLE IMAGES



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **HITACHI TRUCK MANUFACTURING**  
**Sample No.** : WC0753455 **Received** : 02 Feb 2023 **200 WOODLAWN ROAD WEST**  
**Lab Number** : **02537113** **Diagnosed** : 03 Feb 2023 **GUELPH, ON**  
**Unique Number** : 5526113 **Diagnostician** : Kevin Marson **CA N1H 1B6**  
**Test Package** : IND 2 ( Additional Tests: KV100, TAN Man, 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.

**200 WOODLAWN ROAD WEST**  
**GUELPH, ON**  
**CA N1H 1B6**  
**Contact: Cal Banman**  
**cbanman@hitachitruck.com**  
**T: (519)826-5593**  
**F: (519)826-5545**