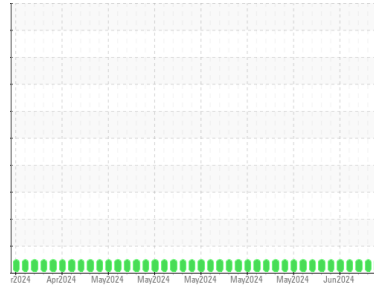




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

QC240415IND2

Component

Hydraulic System

Fluid

AW HYDRAULIC OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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	WC0948171	WC0948170	WC0948169
Sample Date	Client Info	13 Jun 2024	12 Jun 2024	11 Jun 2024
Machine Age	hrs Client Info	0	0	0
Oil Age	hrs Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185(m) >20	0	0	0
Chromium ppm	ASTM D5185(m) >20	0	0	0
Nickel ppm	ASTM D5185(m) >20	0	0	0
Titanium ppm	ASTM D5185(m)	0	0	0
Silver ppm	ASTM D5185(m)	0	0	0
Aluminum ppm	ASTM D5185(m) >20	0	0	0
Lead ppm	ASTM D5185(m) >20	0	0	0
Copper ppm	ASTM D5185(m) >20	0	0	0
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) 5	0	0	0
Barium ppm	ASTM D5185(m) 5	0	0	0
Molybdenum ppm	ASTM D5185(m) 5	0	0	0
Manganese ppm	ASTM D5185(m)	0	0	0
Magnesium ppm	ASTM D5185(m) 25	<1	<1	<1
Calcium ppm	ASTM D5185(m) 200	46	47	48
Phosphorus ppm	ASTM D5185(m) 300	234	229	232
Zinc ppm	ASTM D5185(m) 370	296	294	297
Sulfur ppm	ASTM D5185(m) 2500	5232	5161	5183
Lithium ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

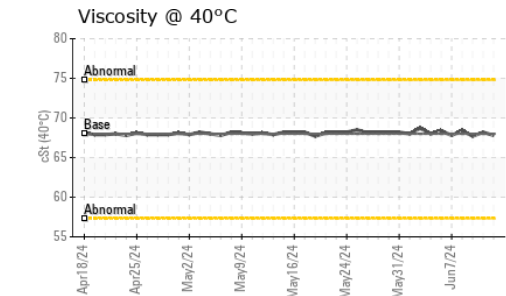
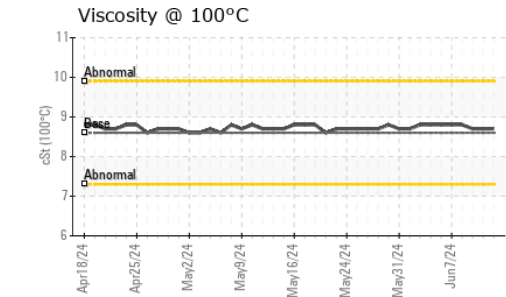
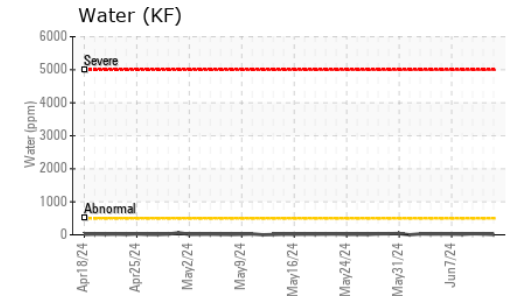
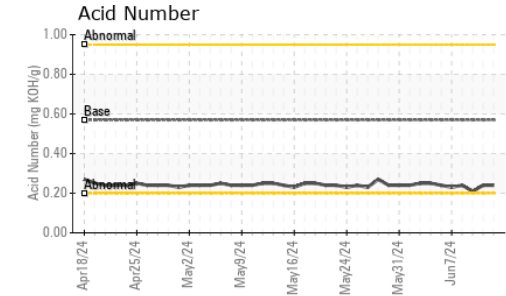
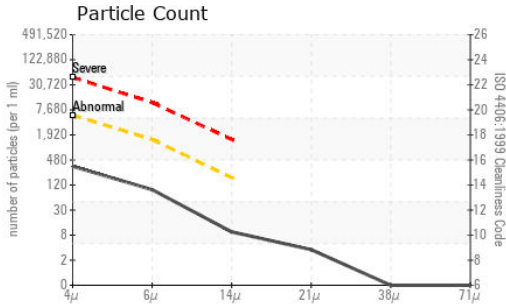
method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185(m) >15	0	0	0
Sodium ppm	ASTM D5185(m)	0	0	0
Potassium ppm	ASTM D5185(m) >20	0	0	<1
Water %	ASTM D6304* >0.05	0.001	0.003	0.003
ppm Water	ASTM D6304* >500	9	27	34

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	298	291	315
Particles >6µm	ASTM D7647 >1300	82	84	73
Particles >14µm	ASTM D7647 >160	8	6	3
Particles >21µm	ASTM D7647 >40	3	1	2
Particles >38µm	ASTM D7647 >10	0	0	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	15/14/10	15/14/10	15/13/9



OIL ANALYSIS REPORT

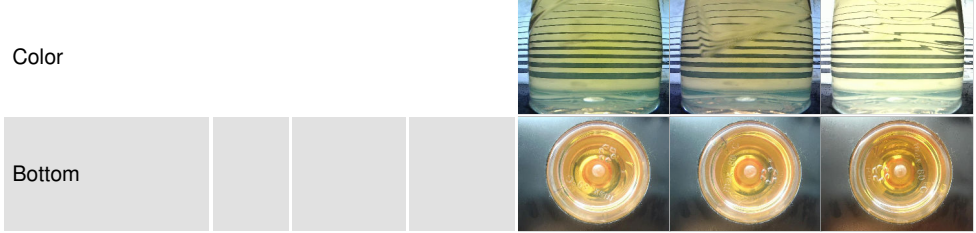


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.24	0.24	0.21

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	NONE
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)	68	67.8	68.2	67.7
Visc @ 100°C	cSt	ASTM D7279(m)	8.6	8.7	8.7	8.7
Viscosity Index (VI)	Scale	ASTM D2270*	96	99	98	99

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0948171
Lab Number : **02641706**
Unique Number : 5799245
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

WearCheck Quality Control Sample Results
 Received : 13 Jun 2024
 Tested : 14 Jun 2024
 Diagnosed : 14 Jun 2024 - Kevin Marson
 Burlington, ON
 CA
 Contact: Dorian Anderson
 dorian.anderson@wearcheck.com
 T: (289)291-4652
 F: (905)569-8605

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.