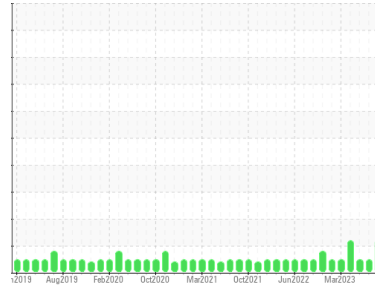




PROBLEM SUMMARY

Sample Rating Trend



ISO



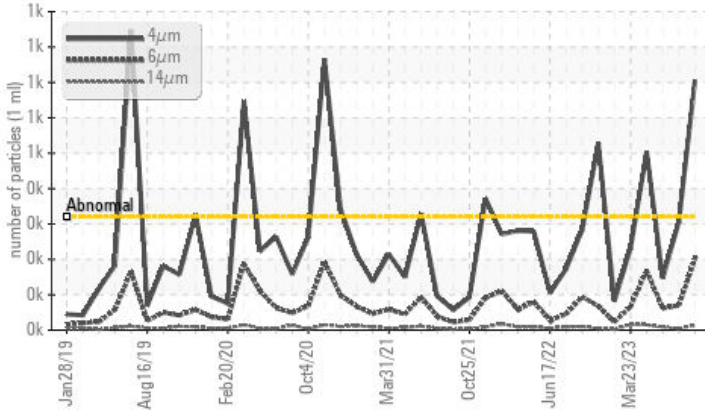
Machine Id
314 BUILDING 314 BLDG (S/N NO INFO ON BOTTLE)

Component
Hydraulic System

Fluid
CITGO AW HYDRAULIC ISO 46 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	NORMAL
Particles >4µm	ASTM D7647	>320	▲ 706	306	147
Particles >6µm	ASTM D7647	>160	▲ 201	70	62
Oil Cleanliness	ISO 4406 (c)	>15/14/11	▲ 17/15/11	15/13/9	14/13/10

Customer Id: CONTRO
Sample No.: WC0851935
Lab Number: 05965346
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS

26 Jul 2023 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



18 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



18 Apr 2023 Diag: Don Baldrige

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

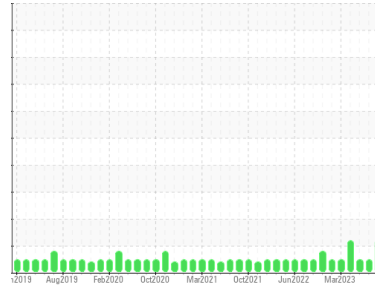
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
314 BUILDING 314 BLDG (S/N NO INFO ON BOTTLE)

Component
Hydraulic System

Fluid
CITGO AW HYDRAULIC ISO 46 (--- QTS)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0851935	WC0800172	WC0800169
Sample Date	Client Info			26 Sep 2023	26 Jul 2023	18 May 2023
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				ABNORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	<1	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	<1	1	1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	0
Lead	ppm	ASTM D5185m	>20	<1	0	<1
Copper	ppm	ASTM D5185m	>20	<1	<1	<1
Tin	ppm	ASTM D5185m	>20	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		9	14	13
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		3	0	2
Calcium	ppm	ASTM D5185m		98	100	107
Phosphorus	ppm	ASTM D5185m		526	571	545
Zinc	ppm	ASTM D5185m		624	653	663
Sulfur	ppm	ASTM D5185m		2377	2815	2451

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	<1	1
Sodium	ppm	ASTM D5185m		<1	1	0
Potassium	ppm	ASTM D5185m	>20	0	0	<1

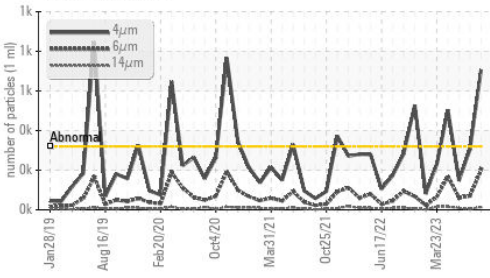
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>320	▲ 706	306	147
Particles >6µm		ASTM D7647	>160	▲ 201	70	62
Particles >14µm		ASTM D7647	>20	14	4	9
Particles >21µm		ASTM D7647	>4	4	0	3
Particles >38µm		ASTM D7647	>3	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>15/14/11	▲ 17/15/11	15/13/9	14/13/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.60	0.72	0.61

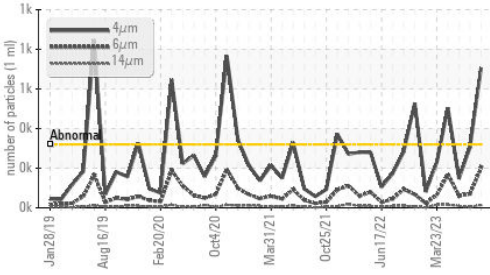


OIL ANALYSIS REPORT

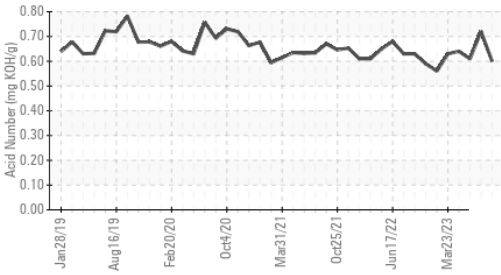
▲ Particle Trend



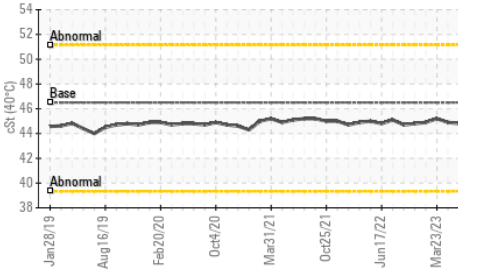
▲ Particle Trend



Acid Number



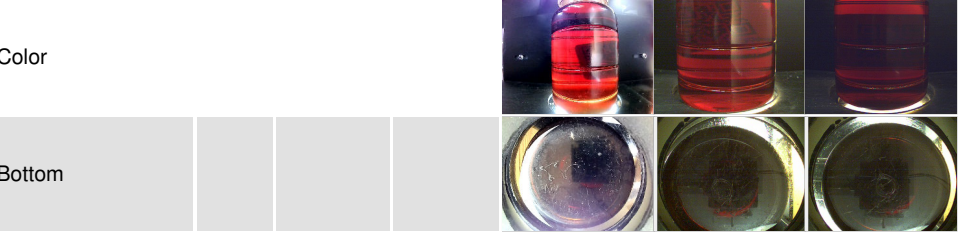
Viscosity @ 40°C



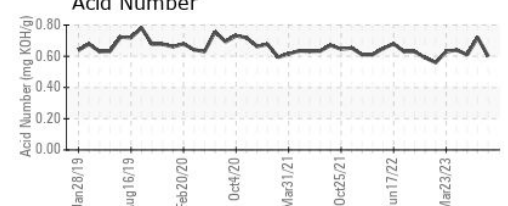
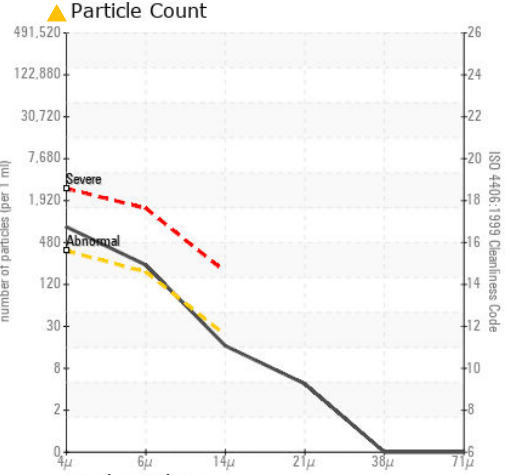
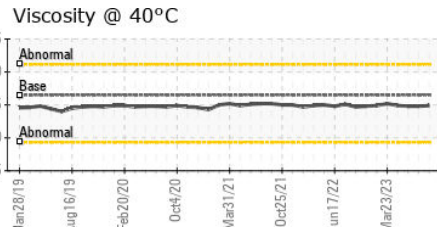
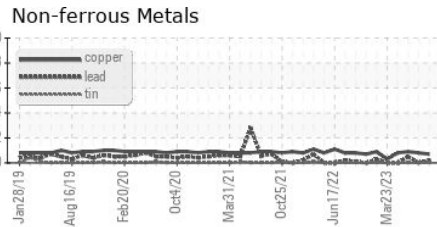
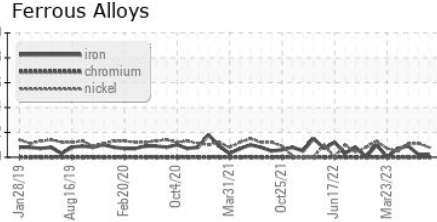
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.5	44.8	44.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0851935 **Received** : 29 Sep 2023
Lab Number : 05965346 **Diagnosed** : 02 Oct 2023
Unique Number : 10671897 **Diagnostician** : Wes Davis
Test Package : IND 2

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 310 EXECUTIVE DRIVE
 Troy, MI
 US 48083-4587
 Contact: LANE HARRISON
 lharrison@jem-cp-r.com
 T: (248)583-1020
 F: (248)583-9486

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)