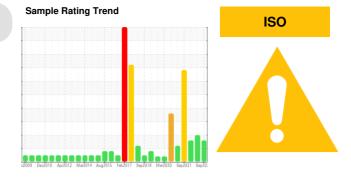


PROBLEM SUMMARY

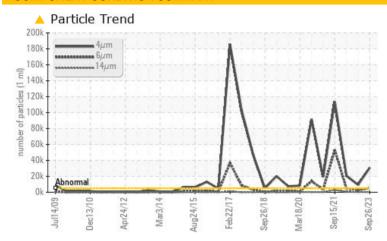
OPK/CL04 101801 Plastifier

Component **Hydraulic System**

ESSO NUTO H ISO 68 (250 LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST F	RESULTS				
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	△ 30774	<u>\$\times\$ 9284</u>	<u>^</u> 20742
Particles >6µm	ASTM D7647	>1300	▲ 5327	<u></u> 2813	▲ 4850
Particles >14μm	ASTM D7647	>160	^ 208	<u>^</u> 291	△ 604
Oil Cleanliness	ISO 4406 (c)	>19/17/14	22/20/15	20/19/15	22/19/16

Customer Id: MITWAT **Sample No.:** WC0790682 Lab Number: 02585867 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: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@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.

HISTORICAL DIAGNOSIS

14 Mar 2023 Diag: Wes Davis



We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >21 μ m are abnormally high. Particles >6 μ m are abnormally high. Particles >4 μ m are notably high. Particles >14 μ m are notably high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



16 Mar 2022 Diag: Wes Davis





We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >14 μ m are abnormally high. Particles >21 μ m are abnormally high. Particles >6 μ m are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



15 Sep 2021 Diag: Wes Davis

ISO



We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. Particles >14 μ m are severely high. Particles >21 μ m are severely high. Particles >4 μ m are severely high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



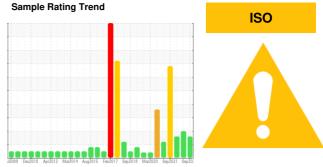


OIL ANALYSIS REPORT

OPK/CL04 101801 Plastifier

Hydraulic System

ESSO NUTO H ISO 68 (250 LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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 INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0790682	WC0763709	WC0651634
Sample Date		Client Info		26 Sep 2023	14 Mar 2023	16 Mar 2022
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	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<1	0	0
Copper	ppm		>20	2	<1	2
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	<1
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)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	5	0	0	0
Calcium	ppm	ASTM D5185(m)	50	50	52	51
Phosphorus	ppm	ASTM D5185(m)	330	336	357	366
Zinc	ppm	. ,	420	424	411	443
Sulfur	ppm	ASTM D5185(m)	3100	3780	7189	6656
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	1	0	<1
Sodium	ppm	ASTM D5185(m)	710	<1	0	0
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1
i otassiuiii						
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
FLUID CLEANLIN	IESS	method ASTM D7647	limit/base >5000	current △ 30774	history1	history2
FLUID CLEANLIN Particles >4µm	IESS	ASTM D7647	>5000	▲ 30774		
FLUID CLEANLIN Particles >4µm Particles >6µm	ESS		>5000 >1300	▲ 30774 ▲ 5327	△ 9284 △ 2813	△ 20742
FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm	IESS	ASTM D7647 ASTM D7647 ASTM D7647	>5000 >1300 >160	△ 30774 △ 5327 △ 208	▲ 9284 ▲ 2813 ▲ 291	▲ 20742 ▲ 4850
FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm Particles >21μm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>5000 >1300 >160 >40	▲ 30774 ▲ 5327 ▲ 208 50	♦ 9284♦ 2813♦ 291♦ 93	▲ 20742 ▲ 4850 ▲ 604 ▲ 143
FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm Particles >21μm Particles >38μm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>5000 >1300 >160 >40 >10	▲ 30774 ▲ 5327 ▲ 208 50	▲ 9284▲ 2813▲ 291▲ 935	▲ 20742 ▲ 4850 ▲ 604 ▲ 143 6
FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm Particles >21μm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>5000 >1300 >160 >40 >10	▲ 30774 ▲ 5327 ▲ 208 50	♦ 9284♦ 2813♦ 291♦ 93	▲ 20742 ▲ 4850 ▲ 604 ▲ 143

Acid Number (AN)

mg KOH/g ASTM D974* .40

0.30

0.30



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory Sample No. Lab Number **Unique Number** Test Package

: IND 2

: WC0790682 : 02585867 : 5654933

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received

Diagnostician

: 02 Oct 2023 Diagnosed : Wes Davis

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.

: 28 Sep 2023

MICHELIN TIRE 866 RANDOLPH RD WATERVILLE, NS **CA BOP 1V0**

Contact: Alan Davies alan.davies@michelin.com T: (902)534-3590

F: x: