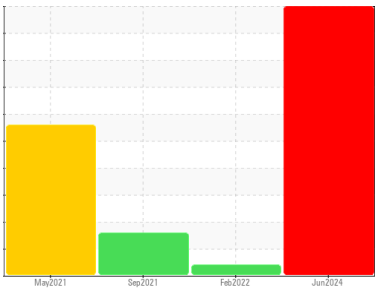
PROBLEM SUMMARY

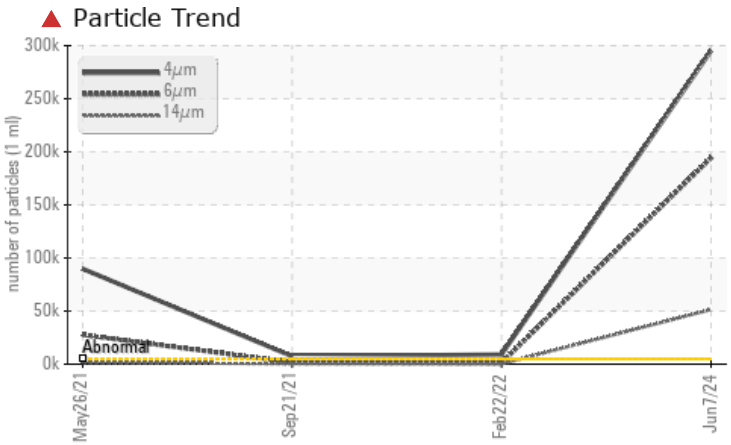
Area
[8133988]
Machine Id
PH82503
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (225 GAL)

Sample Rating Trend



ISO

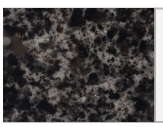
COMPONENT CONDITION SUMMARY



RECOMMENDATION

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. Please specify the brand, type, and viscosity of the oil on your next sample. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **295197**	● 9069	● 7296
Particles >6µm		ASTM D7647	>1300	▲ **194369**	1278	● 1606
Particles >14µm		ASTM D7647	>160	▲ **51376**	87	● 242
Particles >21µm		ASTM D7647	>40	▲ **20239**	18	▲ 82
Particles >38µm		ASTM D7647	>10	▲ **2024**	1	6
Particles >71µm		ASTM D7647	>3	▲ **107**	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **25/25/23**	● 20/17/14	● 20/18/15
Sand/Dirt	scalar	Visual*	NONE	▲ **MODER**	NONE	NONE
PrtFilter					*no image*	*no image*

Customer Id: ESCPOR
Sample No.: WC0885270
Lab Number: 02645648
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Alert	---	---	?	We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.
Check Breathers	---	---	?	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.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

ISO

22 Feb 2022 Diag: Kevin Marson
We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a light amount of silt (particulates < 14 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

ISO

21 Sep 2021 Diag: Kevin Marson
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 >21µm are abnormally high. Particles >4µm are notably high. Particles >6µm are notably high. Particles >14µm are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

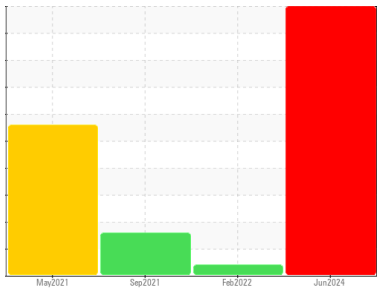
ISO

26 May 2021 Diag: Kevin Marson
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 >14µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Particles >21µm are abnormally high. Particles >38µm are notably high. The condition of the oil is acceptable for the time in service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
[8133988]
Machine Id
PH82503
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (225 GAL)

DIAGNOSIS

Recommendation

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. Please specify the brand, type, and viscosity of the oil on your next sample. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear

All component wear rates are normal.

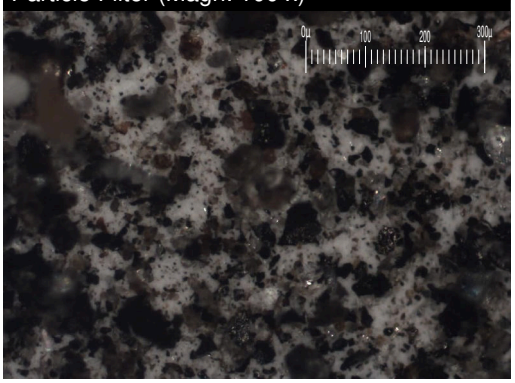
Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

Particle Filter (Magn: 100 x)



SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0885270**	WC0566161	WC0566169
Sample Date		Client Info		**07 Jun 2024**	22 Feb 2022	21 Sep 2021
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				**SEVERE**	ATTENTION	ABNORMAL

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	**2**	<1	<1
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	<1
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	<1	0
Lead	ppm	ASTM D5185(m)	>20	**0**	<1	<1
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	<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)	5	**7**	<1	<1
Barium	ppm	ASTM D5185(m)	5	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	5	**3**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	25	**22**	<1	<1
Calcium	ppm	ASTM D5185(m)	200	**111**	16	17
Phosphorus	ppm	ASTM D5185(m)	300	**378**	510	526
Zinc	ppm	ASTM D5185(m)	370	**472**	589	592
Sulfur	ppm	ASTM D5185(m)	2500	**1361**	3766	3770
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**4**	17	16
Sodium	ppm	ASTM D5185(m)		**1**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**6**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **295197**	9069	7296
Particles >6µm		ASTM D7647	>1300	▲ **194369**	1278	1606
Particles >14µm		ASTM D7647	>160	▲ **51376**	87	242
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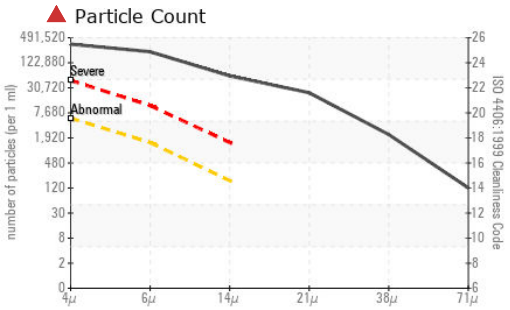
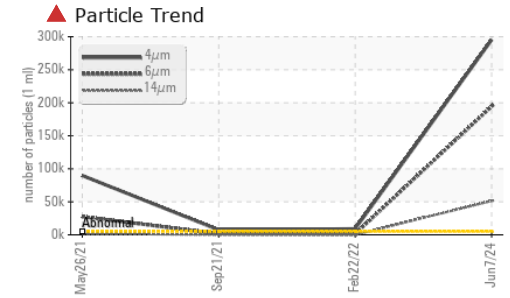
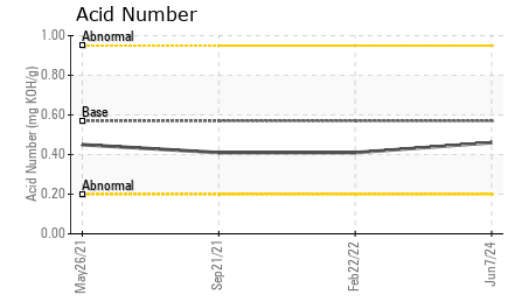
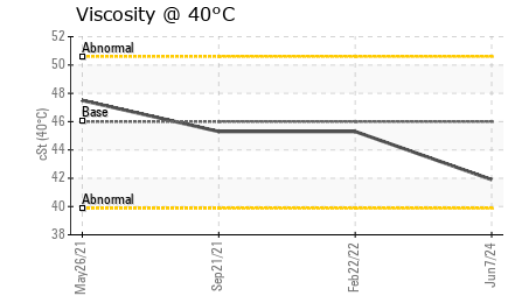
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **25/25/23**	20/17/14	20/18/15

OIL ANALYSIS REPORT





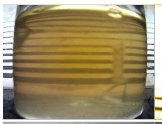
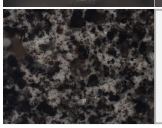




FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	**0.46**	0.41	0.41

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	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	▲ **MODER**	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)	46	**41.9**	45.3	45.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter				*no image*	*no image*

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0885270 **Received** : 04 Jul 2024
Lab Number : 02645648 **Tested** : 10 Jul 2024
Unique Number : 5803187 **Diagnosed** : 10 Jul 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, PrtFilter, TAN Mar

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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