

# **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO



Front Differential Fluid {not provided} (--- GAL)

# DIAGNOSIS

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Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

## Wear

All component wear rates are normal.

### Contamination

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

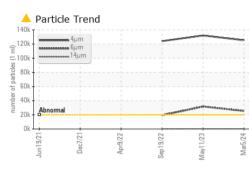
## Fluid Condition

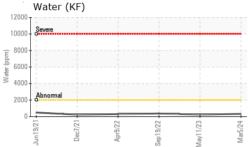
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

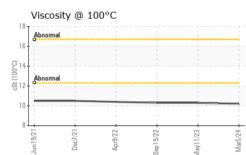
		Jun2021	Dec2021 Apr2022	2 Sep2022 May2023	Mar2024	
SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0900822	WC0815573	WC0751662
Sample Date		Client Info		05 Mar 2024	11 May 2023	19 Sep 2022
Machine Age	mls	Client Info		328488	259307	210204
Oil Age	mls	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 D5185m	>500	218	183	176
Chromium	ppm	ASTM D5185m	>10	2	2	2
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	<1	<1
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>100	2	1	1
Tin	ppm		>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		81	77	86
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		11	10	9
Magnesium	ppm	ASTM D5185m		137	157	149
Calcium	ppm	ASTM D5185m		11	7	3
Phosphorus	ppm	ASTM D5185m		1566	1664	1545
Zinc	ppm	ASTM D5185m		6	3	0
Sulfur	ppm	ASTM D5185m		23912	28397	25056
CONTAMINANTS	5	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	27	18	18
Sodium	ppm	ASTM D5185m		2	2	2
Potassium	ppm	ASTM D5185m	>20	3	1	0
Water	%	ASTM D6304	>.2	0.032	0.022	0.036
ppm Water	ppm	ASTM D6304	>2000	325	226.6	365.5
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>125356</b>	▲ 132070	▲ 124067
Particles >6µm		ASTM D7647	>5000	<u> </u>	<b>A</b> 31709	▲ 19417
Particles >14μm		ASTM D7647	>640	143	145	42
Particles >21µm		ASTM D7647	>160	18	11	5
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<u> </u>	▲ 24/22/14	▲ 24/21/13
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.97	0.72	1.07
	3			'		

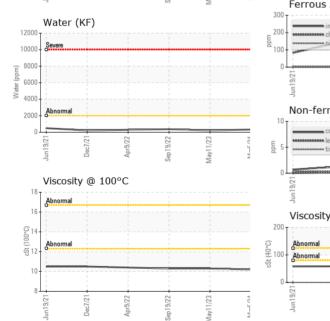


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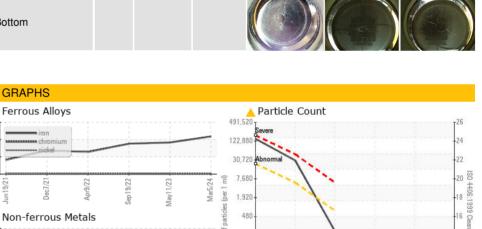






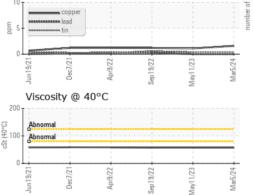
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		57.2	57.2	57.2
Visc @ 100°C	cSt	ASTM D445		10.2	10.3	10.3
Viscosity Index (VI)	Scale	ASTM D2270		167	170	170
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					Went Engine 2	Fleet, Unit D. Coder

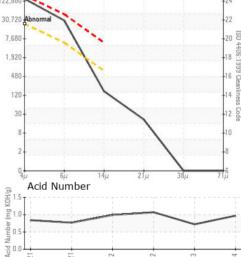
Bottom



Jun19/21

Dec7/21





Sep19/22 -

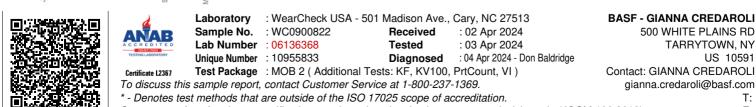
May11/23

Mar5/24

T:

F:

25930



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

Apr9/22