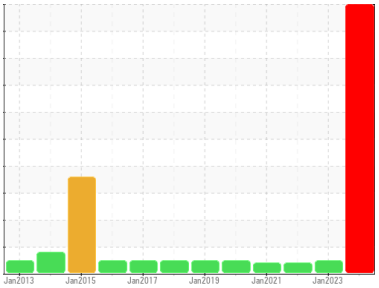
PROBLEM SUMMARY

Sample Rating Trend

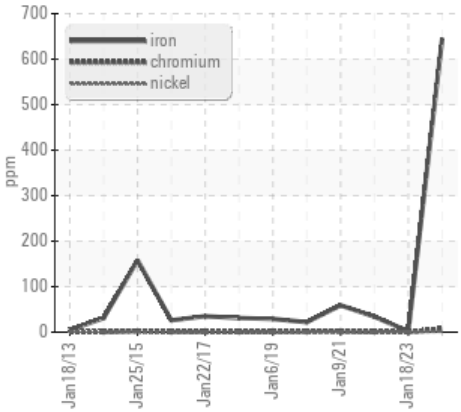


WEAR

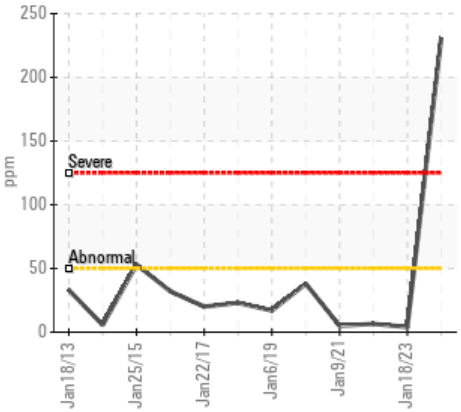
Area
[603795753 SDR]
Machine Id
L-3 CARMEL PMP (S/N 20065654)
Component
Gearbox
Fluid
GEAR OIL ISO 320 (--- GAL)

COMPONENT CONDITION SUMMARY

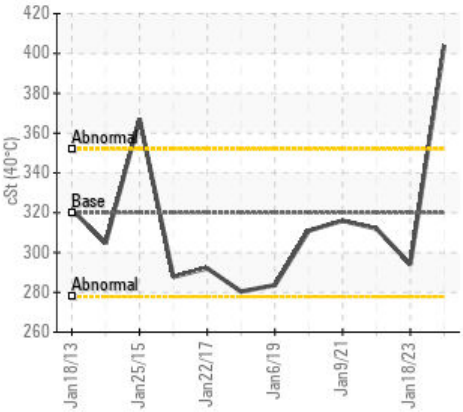
Ferrous Alloys



Silicon (ppm)



Viscosity @ 40°C



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	MARGINAL
Iron	ppm	ASTM D5185m	>200	645	2	34
Silicon	ppm	ASTM D5185m	>50	231	4	6

Customer Id: MARSCHI
Sample No.: WC0854231
Lab Number: 06064460
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

18 Jan 2023 Diag: Don Baldridge

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

view report

05 Feb 2022 Diag: Doug Bogart

VIS DEBRIS

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

09 Jan 2021 Diag: Don Baldridge

VIS DEBRIS

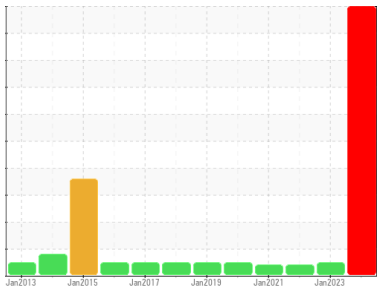
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
[603795753 SDR]
Machine Id
L-3 CARMEL PMP (S/N 20065654)
Component
Gearbox
Fluid
GEAR OIL ISO 320 (--- GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation
We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
A sharp increase in the iron level is noted. Gear wear is indicated.

Contamination
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition
The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0854231**	WC0605189	WC0605605
Sample Date		Client Info		**30 Dec 2023**	18 Jan 2023	05 Feb 2022
Machine Age	mls	Client Info		**0**	0	0
Oil Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	MARGINAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**645**	2	34
Chromium	ppm	ASTM D5185m	>15	**8**	0	<1
Nickel	ppm	ASTM D5185m	>15	**2**	0	0
Titanium	ppm	ASTM D5185m		**9**	0	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**8**	0	5
Lead	ppm	ASTM D5185m	>100	**2**	<1	0
Copper	ppm	ASTM D5185m	>200	**2**	<1	<1
Tin	ppm	ASTM D5185m	>25	**<1**	<1	0
Antimony	ppm	ASTM D5185m	>5	**---**	---	10
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

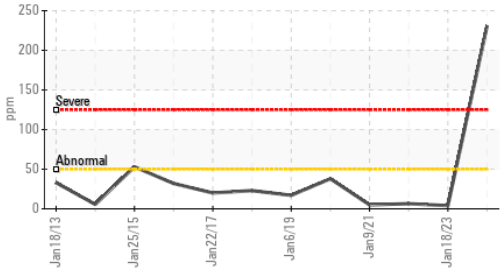
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**37**	0	4
Barium	ppm	ASTM D5185m	15	**0**	0	0
Molybdenum	ppm	ASTM D5185m	15	**<1**	0	0
Manganese	ppm	ASTM D5185m		**5**	0	<1
Magnesium	ppm	ASTM D5185m	50	**23**	0	<1
Calcium	ppm	ASTM D5185m	50	**3447**	<1	178
Phosphorus	ppm	ASTM D5185m	350	**282**	235	235
Zinc	ppm	ASTM D5185m	100	**748**	4	251
Sulfur	ppm	ASTM D5185m	12500	**1898**	2200	1542

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**231**	4	6
Sodium	ppm	ASTM D5185m		**14**	<1	19
Potassium	ppm	ASTM D5185m	>20	**2**	<1	3

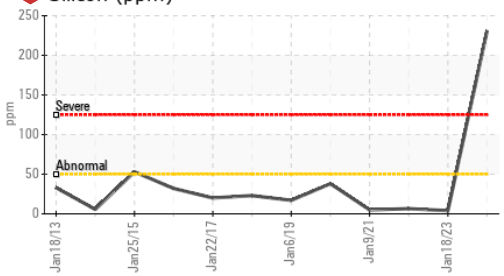
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	**0.87**	0.74	0.585

OIL ANALYSIS REPORT

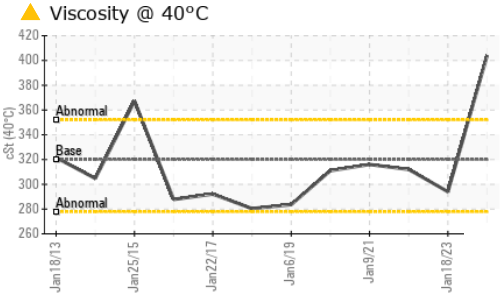
Silicon (ppm)



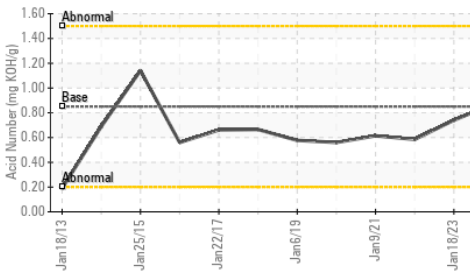
Silicon (ppm)



Viscosity @ 40°C

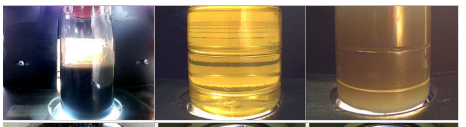
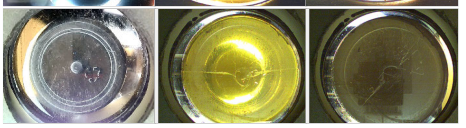


Acid Number



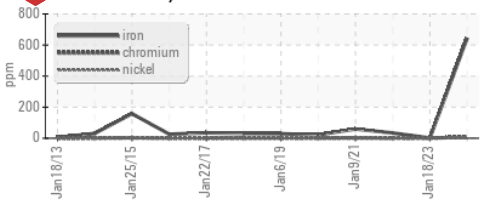
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**MODER**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	▲ **404**	294	312

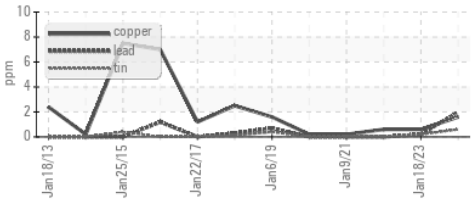
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

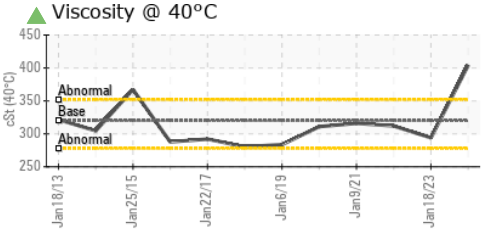
Ferrous Alloys



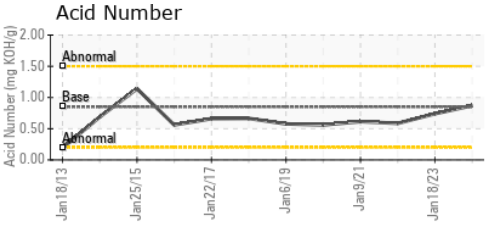
Non-ferrous Metals



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0854231 **Recieved** : 18 Jan 2024
Lab Number : 06064460 **Diagnosed** : 21 Jan 2024
Unique Number : 10835842 **Diagnostician** : Don Baldridge
Test Package : IND 2

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)

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