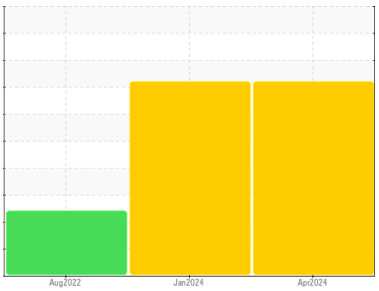
PROBLEM SUMMARY

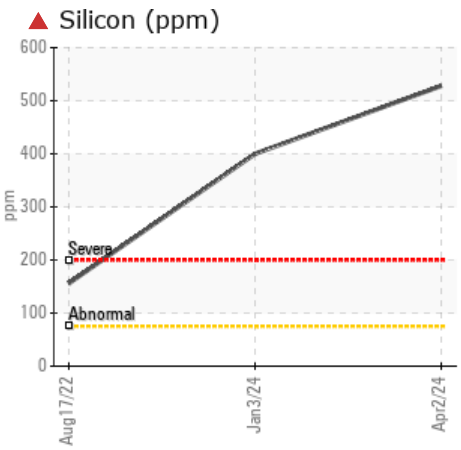
Sample Rating Trend

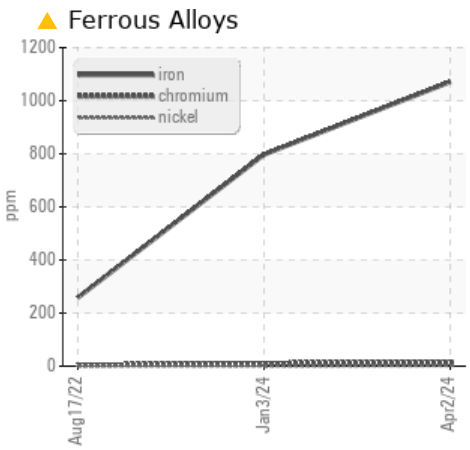


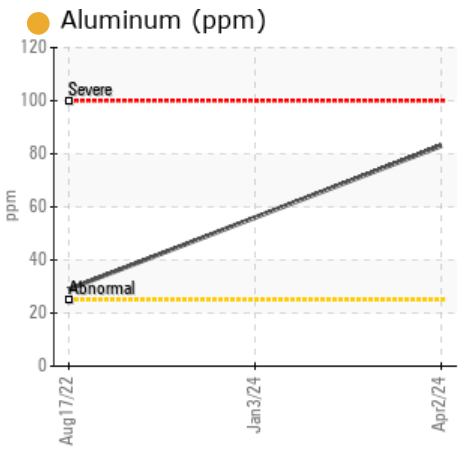
DIRT

Area
[22174]
Machine Id
40-98
Component
Left Final Drive
Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY







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 recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>500	▲ **1071**	▲ 797	258
Chromium	ppm	ASTM D5185m	>10	▲ **14**	▲ 11	4
Silicon	ppm	ASTM D5185m	>75	▲ **528**	▲ 400	▲ 156

Customer Id: MANTUL
Sample No.: WC0836144
Lab Number: 06148184
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
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

DIRT

03 Jan 2024 Diag: Angela Borella

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

view report

DIRT

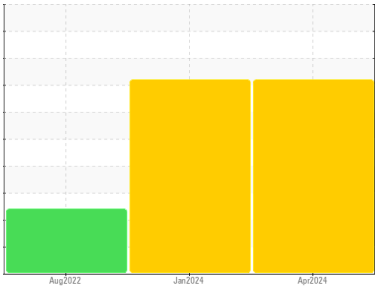
17 Aug 2022 Diag: Angela Borella

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.The aluminum level is abnormal. All other component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
[22174]
Machine Id
40-98
Component
Left Final Drive
Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)

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 recommend an early resample to monitor this condition.

Wear
Gear wear is indicated.

Contamination
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0836144**	WC0836153	WC0709429
Sample Date		Client Info		**02 Apr 2024**	03 Jan 2024	17 Aug 2022
Machine Age	hrs	Client Info		**5358**	5084	4593
Oil Age	hrs	Client Info		**274**	1084	500
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**SEVERE**	SEVERE	ABNORMAL

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	>500	▲ **1071**	▲ 797	258
Chromium	ppm	ASTM D5185m	>10	▲ **14**	▲ 11	4
Nickel	ppm	ASTM D5185m	>10	**2**	<1	1
Titanium	ppm	ASTM D5185m		**6**	5	2
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	● **83**	▲ 56	▲ 29
Lead	ppm	ASTM D5185m	>25	**<1**	0	<1
Copper	ppm	ASTM D5185m	>50	**12**	8	4
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**1**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	0	0

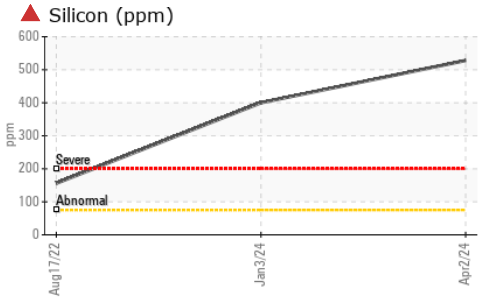
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	85	**133**	104	135
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**17**	13	13
Manganese	ppm	ASTM D5185m		**9**	7	2
Magnesium	ppm	ASTM D5185m	350	**710**	657	584
Calcium	ppm	ASTM D5185m	1800	**1664**	1419	1318
Phosphorus	ppm	ASTM D5185m	1000	**1237**	1136	945
Zinc	ppm	ASTM D5185m	1100	**1327**	1217	1120
Sulfur	ppm	ASTM D5185m	3500	**4538**	3861	3390

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	▲ **528**	▲ 400	▲ 156
Sodium	ppm	ASTM D5185m		**5**	4	2
Potassium	ppm	ASTM D5185m	>20	**26**	18	7

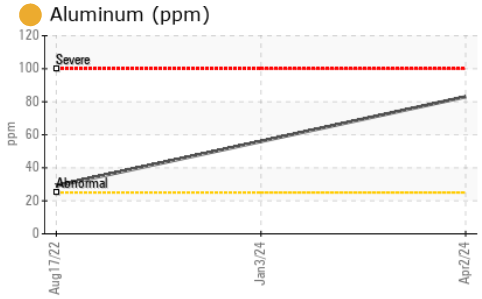
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	MODER	LIGHT
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

OIL ANALYSIS REPORT

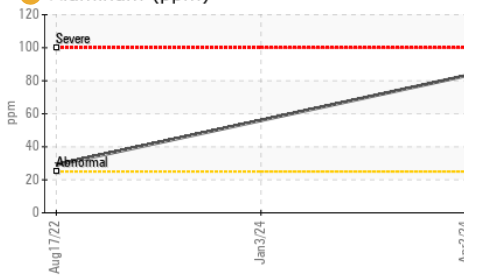
Silicon (ppm)



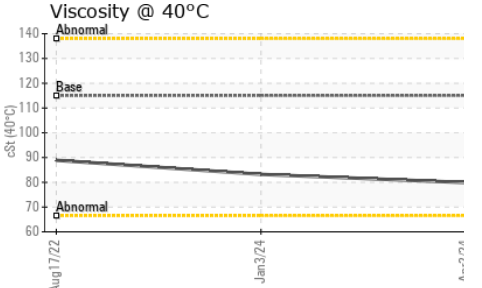
Aluminum (ppm)



Aluminum (ppm)



Viscosity @ 40°C

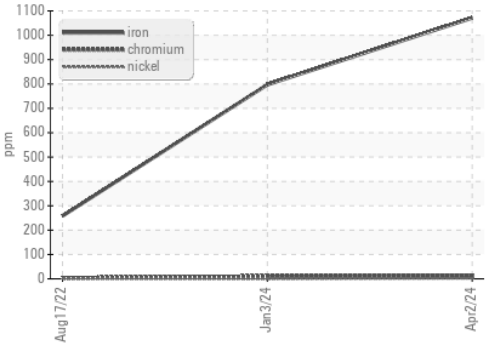


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	115	**79.9**	83.2	88.9

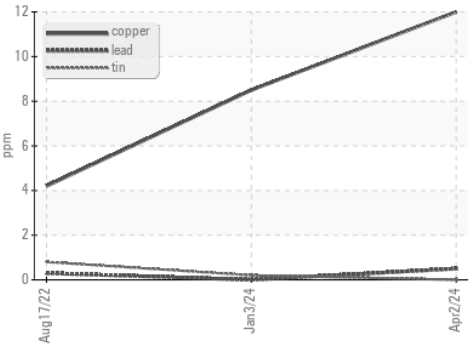
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

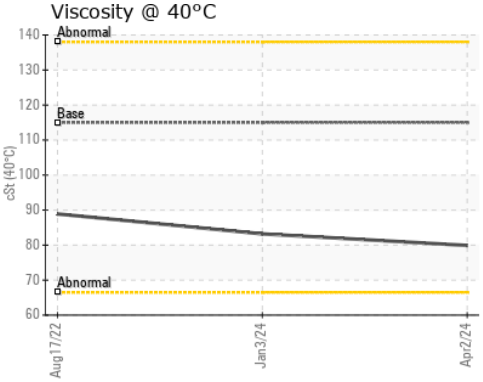
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



ANAB ACCREDITED TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0836144
Lab Number : 06148184
Unique Number : 10978262
Test Package : CONST

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 16 Apr 2024 - Sean Felton

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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Report Id: MANTUL [WUSCAR] 06148184 (Generated: 04/16/2024 18:01:30) Rev: 1

Submitted By: JAMES STEELMON