OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
26141
Component
Right Final Drive
Fluid
CHEVRON DELO GEAR ESI OIL 80W90 (--- QTS)

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

The iron, chrome and nickel levels are severe. Gear wear is indicated.

CONTAMINATION

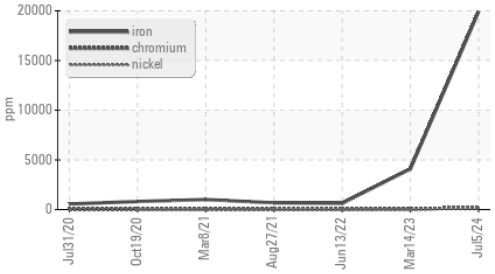
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

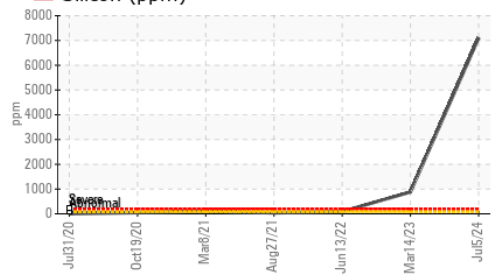
The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0950529**	WC0786526	WC0689270
Sample Date		Client Info		**05 Jul 2024**	14 Mar 2023	13 Jun 2022
Machine Age	hrs	Client Info		**3828**	2626	2142
Oil Age	hrs	Client Info		**500**	500	1000
Filter Age	hrs	Client Info		**500**	500	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>500	▲ **19923**	▲ 4091	▲ 629
Chromium	ppm	ASTM D5185m	>10	▲ **220**	▲ 32	8
Nickel	ppm	ASTM D5185m	>10	▲ **111**	▲ 17	6
Titanium	ppm	ASTM D5185m		**76**	11	2
Silver	ppm	ASTM D5185m		**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>25	● **1015**	● 120	● 29
Lead	ppm	ASTM D5185m	>25	**4**	0	<1
Copper	ppm	ASTM D5185m	>50	**27**	4	1
Tin	ppm	ASTM D5185m	>10	**1**	0	0
Vanadium	ppm	ASTM D5185m		**4**	1	<1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	▲ **7102**	▲ 882	▲ 90
Potassium	ppm	ASTM D5185m	>20	**258**	19	5
Water		WC Method	>0.2	**NEG**	NEG	NEG
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	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185m		**109**	10	3
Boron	ppm	ASTM D5185m	15	**154**	86	163
Barium	ppm	ASTM D5185m	0	**4**	0	0
Molybdenum	ppm	ASTM D5185m	0	**39**	12	12
Manganese	ppm	ASTM D5185m		**194**	29	5
Magnesium	ppm	ASTM D5185m	0	**84**	31	41
Calcium	ppm	ASTM D5185m	5	**130**	89	147
Phosphorus	ppm	ASTM D5185m	600	**1671**	1090	942
Zinc	ppm	ASTM D5185m	0	**45**	70	149
Sulfur	ppm	ASTM D5185m	22000	**22902**	25849	17150
Visc @ 40°C	cSt	ASTM D445	140	● **604**	141	150

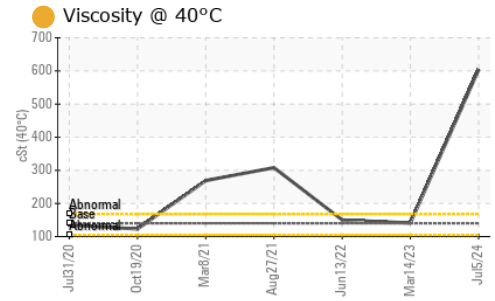
Ferrous Alloys



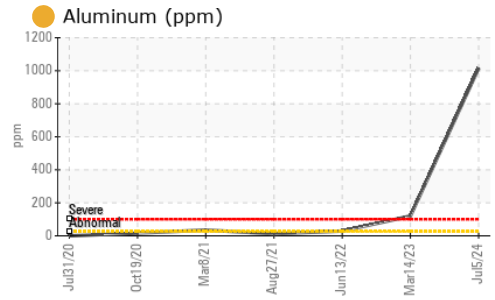
Silicon (ppm)



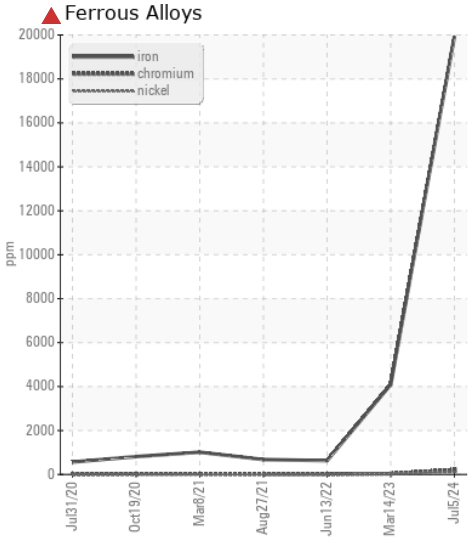
Viscosity @ 40°C



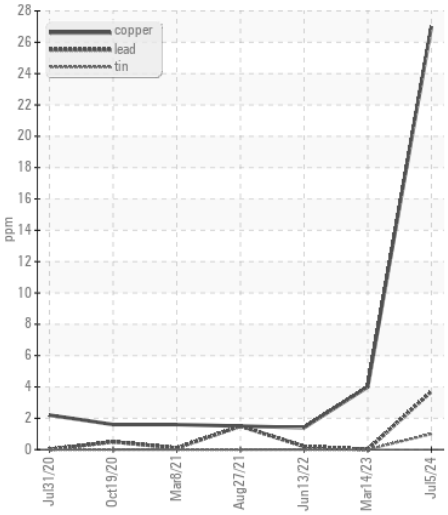
Aluminum (ppm)



Ferrous Alloys



Non-ferrous Metals



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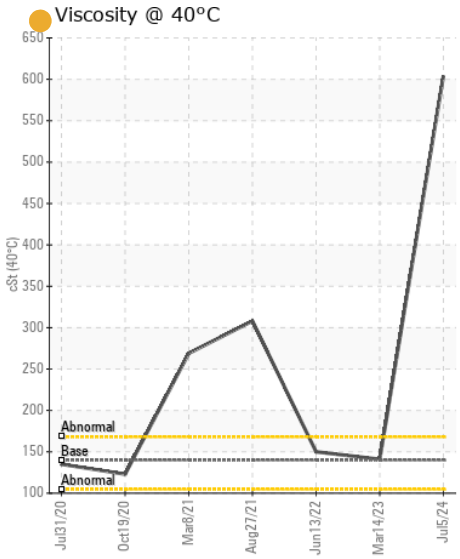

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950529
Lab Number : 06233624
Unique Number : 11117117
Test Package : CONST

Received : 11 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 13 Jul 2024 - Don Baldridge

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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