



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
Contracting
Machine Id
5109 5109
Component
Front Differential
Fluid
GEAR OIL SAE 75W90 (4 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0939288	WC0808886	WC0688145
Sample Date		Client Info		22 May 2024	13 Apr 2023	07 Apr 2022
Machine Age	hrs	Client Info		3278	2760	2256
Oil Age	hrs	Client Info		1022	504	1256
Filter Age	hrs	Client Info		1022	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ATTENTION	NORMAL

WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>500	277	251	99
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m	>25	<1	0	<1
Lead	ppm	ASTM D5185m	>25	2	0	<1
Copper	ppm	ASTM D5185m	>100	▲ 506	25	26
Tin	ppm	ASTM D5185m	>10	▲ 38	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

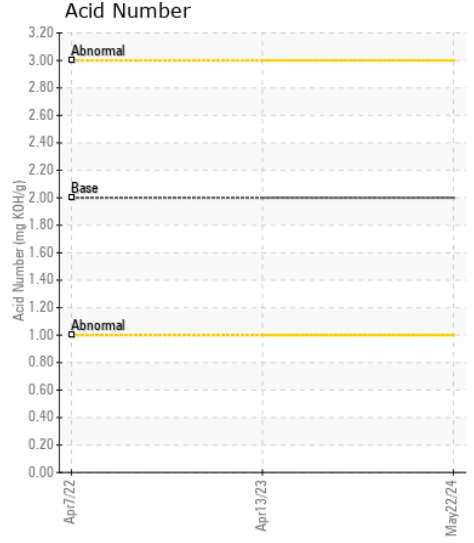
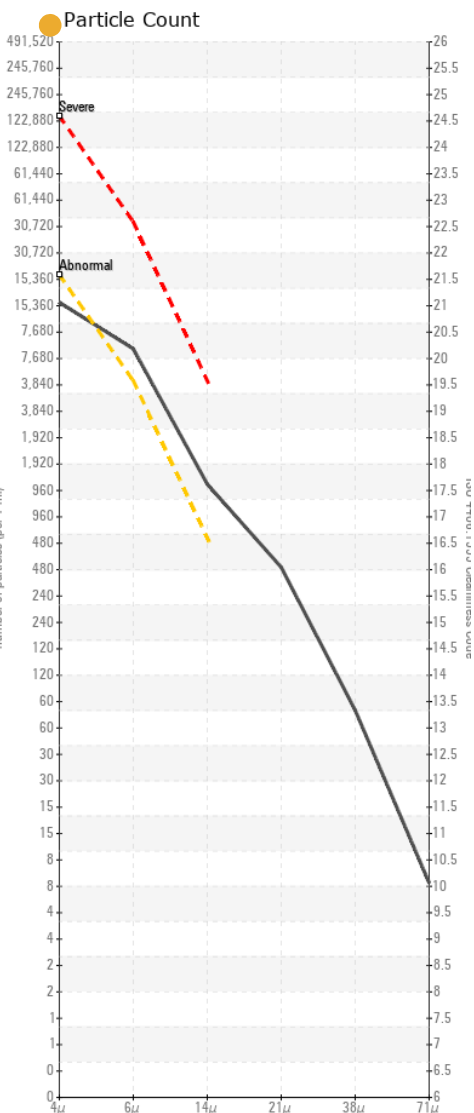
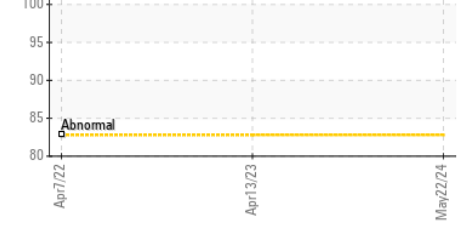
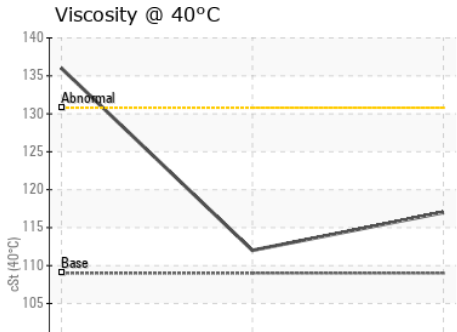
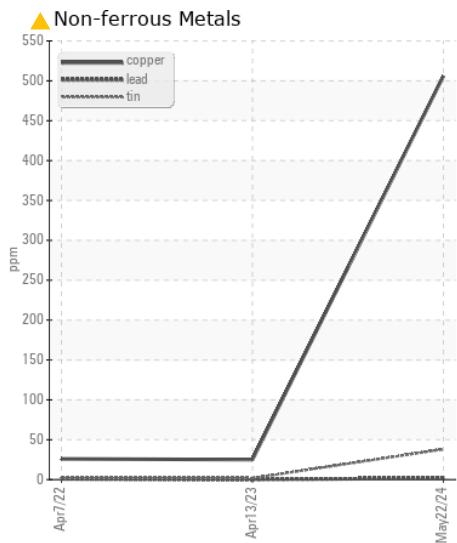
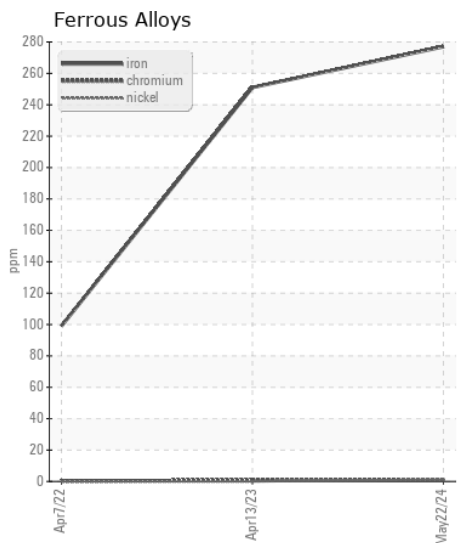
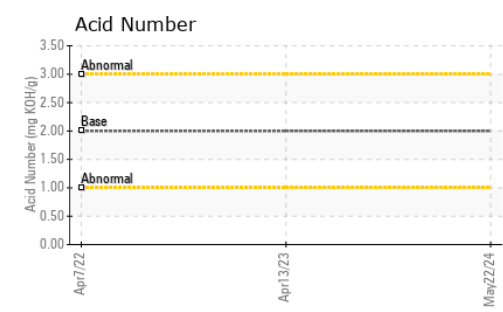
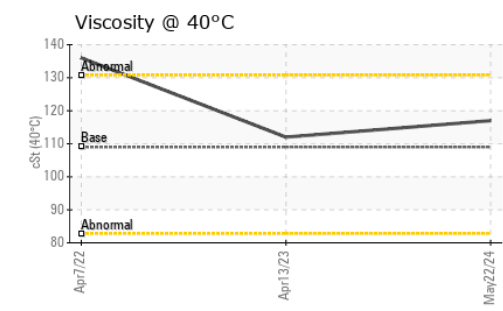
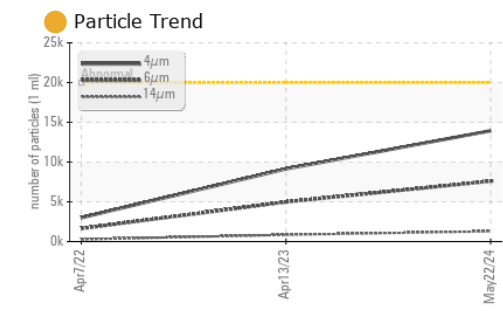
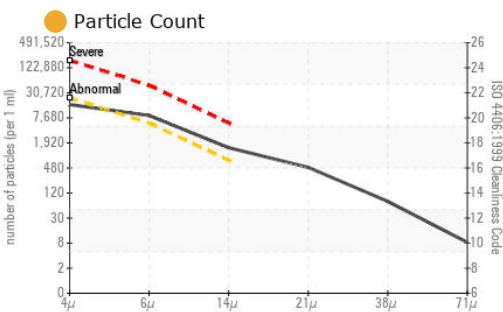
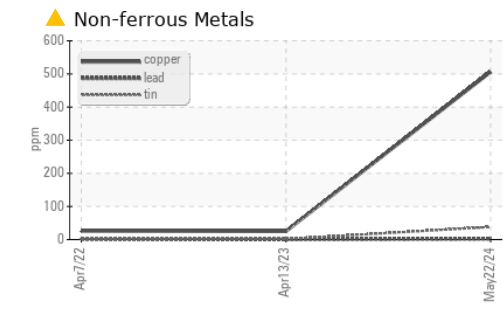
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>75	8	6	3
Potassium	ppm	ASTM D5185m	>20	5	0	<1
Water		WC Method	>.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	13937	9143	3001
Particles >6µm		ASTM D7647	>5000	7592	4981	1635
Particles >14µm		ASTM D7647	>640	1292	848	278
Particles >21µm		ASTM D7647	>160	435	286	94
Particles >38µm		ASTM D7647	>40	67	44	14
Particles >71µm		ASTM D7647	>10	7	5	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	21/20/17	20/19/17	19/18/15
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

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		4	2	3
Boron	ppm	ASTM D5185m	400	112	190	104
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	0	<1	<1
Manganese	ppm	ASTM D5185m		5	5	3
Magnesium	ppm	ASTM D5185m	12	4	6	<1
Calcium	ppm	ASTM D5185m	150	25	44	90
Phosphorus	ppm	ASTM D5185m	1650	584	1190	936
Zinc	ppm	ASTM D5185m	125	40	65	157
Sulfur	ppm	ASTM D5185m	22500	23520	25056	17480
Visc @ 40°C	cSt	ASTM D445	109	117	112	136



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939288 **Received** : 28 May 2024
Lab Number : 06192735 **Tested** : 31 May 2024
Unique Number : 11049487 **Diagnosed** : 31 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PrtCount)

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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)