



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area
TM 5
Machine Id
Component
TM 5 - 7 and 8 VACUUM PUMP
Pump
Fluid
GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0030494	RP0038117	RP0023596
Sample Date		Client Info		25 Jun 2024	29 Jan 2024	24 May 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>90	27	20	4
Chromium	ppm	ASTM D5185m	>5	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m	>3	0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	2	2	1
Lead	ppm	ASTM D5185m	>12	0	0	0
Copper	ppm	ASTM D5185m	>30	4	3	<1
Tin	ppm	ASTM D5185m	>9	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

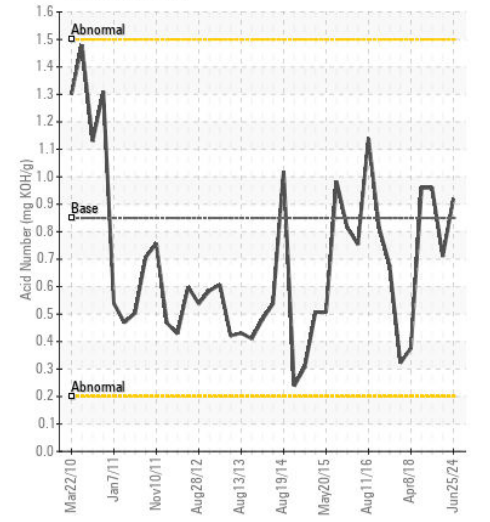
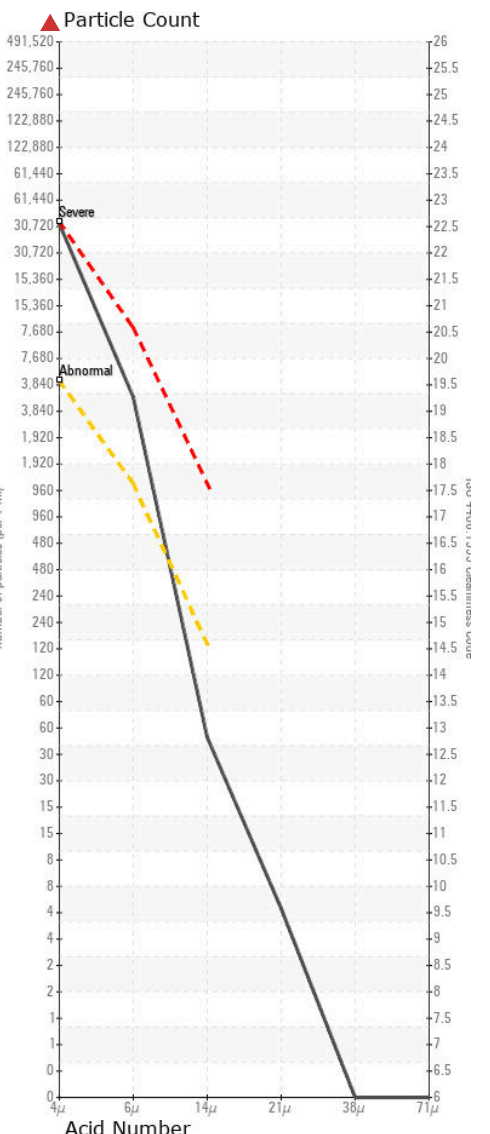
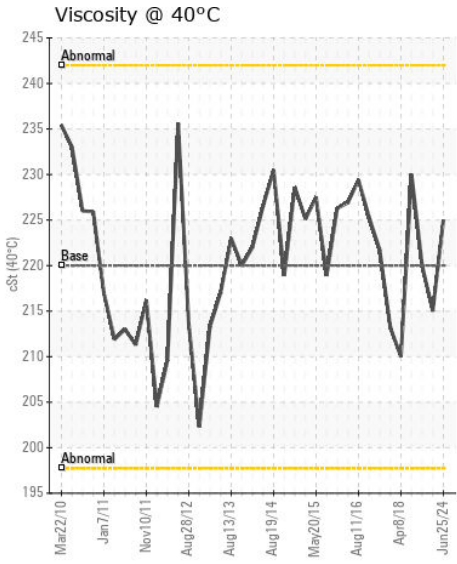
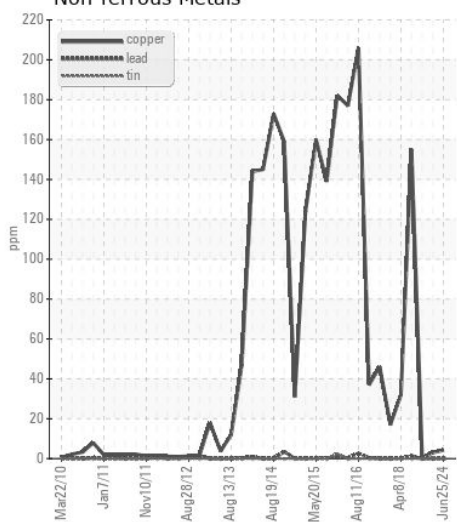
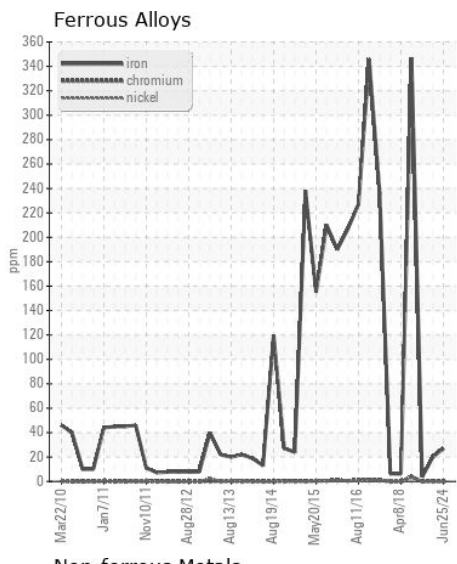
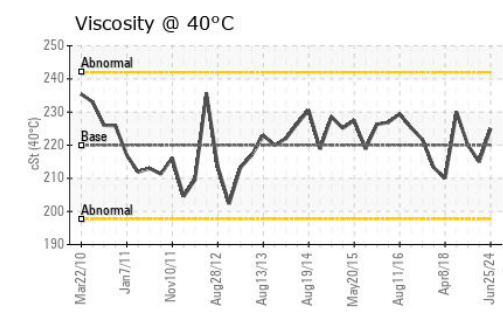
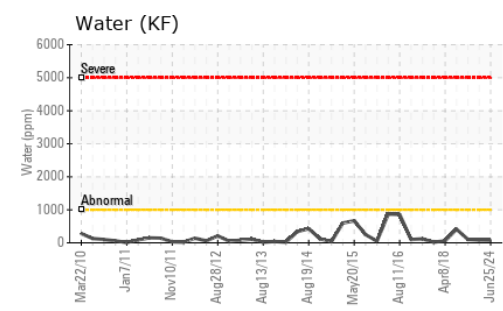
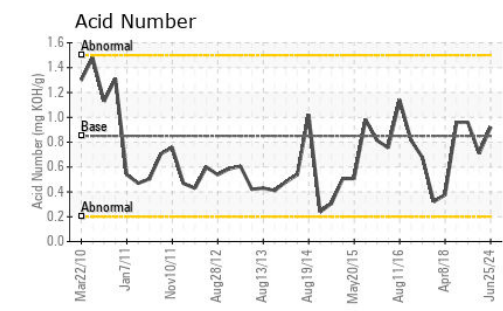
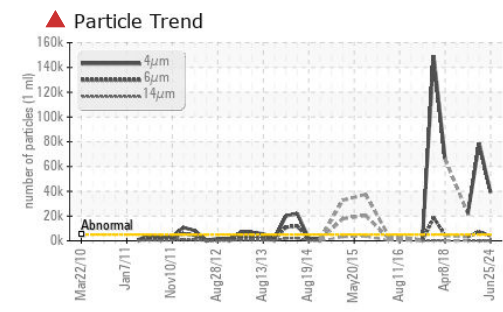
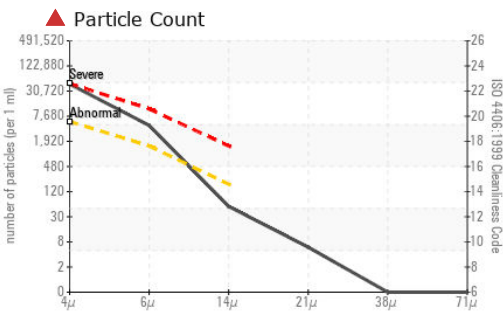
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>60	6	3	<1
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water	%	ASTM D6304	>.1	0.007	0.008	0.010
ppm Water	ppm	ASTM D6304	>1000	76	85	102.8
Particles >4µm		ASTM D7647	>5000	▲ 39046	▲ 78788	▲ 22113
Particles >6µm		ASTM D7647	>1300	▲ 4034	▲ 7227	▲ 3281
Particles >14µm		ASTM D7647	>160	47	85	▲ 170
Particles >21µm		ASTM D7647	>40	5	13	34
Particles >38µm		ASTM D7647	>10	0	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/13	▲ 23/20/14	▲ 22/19/15
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	>.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	0	1
Boron	ppm	ASTM D5185m	50	1	0	0
Barium	ppm	ASTM D5185m	15	0	0	0
Molybdenum	ppm	ASTM D5185m	15	0	<1	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	50	<1	1	1
Calcium	ppm	ASTM D5185m	50	23	24	<1
Phosphorus	ppm	ASTM D5185m	350	467	386	413
Zinc	ppm	ASTM D5185m	100	16	3	14
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.92	0.71	0.96
Visc @ 40°C	cSt	ASTM D445	220	225	215	220



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0030494 **Received** : 26 Jun 2024
Lab Number : 06221169 **Tested** : 27 Jun 2024
Unique Number : 11099366 **Diagnosed** : 27 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: PQ, PrtCount)
 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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