



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
5048
 Component
Hydraulic System
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

Oil and filter 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		JR0195371	JR0159717	---
Sample Date		Client Info		23 Feb 2024	26 May 2023	---
Machine Age	hrs	Client Info		1992	1141	---
Oil Age	hrs	Client Info		2000	1000	---
Filter Age	hrs	Client Info		2000	1000	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

The iron level is abnormal. All other component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		23	19	---
Iron	ppm	ASTM D5185m	>20	▲ 29	19	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>10	3	3	---
Lead	ppm	ASTM D5185m	>10	<1	0	---
Copper	ppm	ASTM D5185m	>75	6	5	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

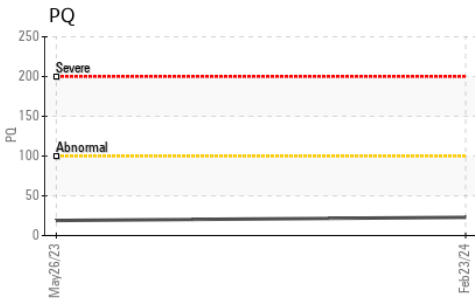
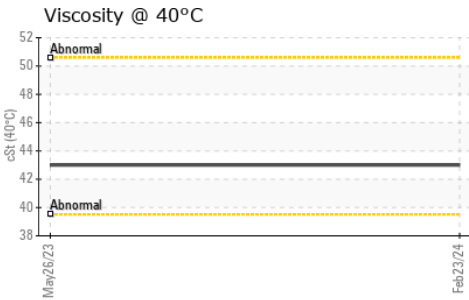
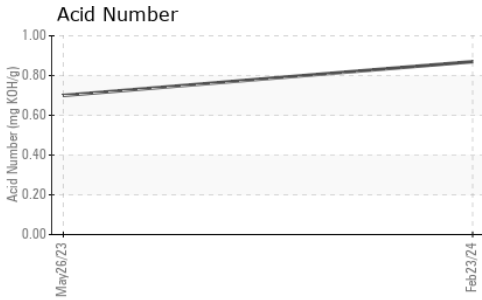
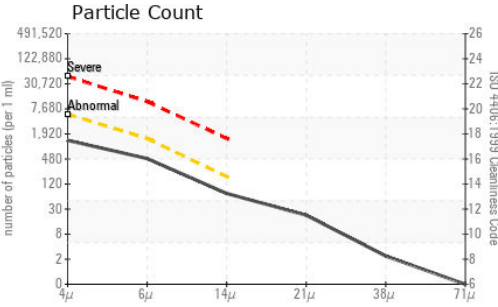
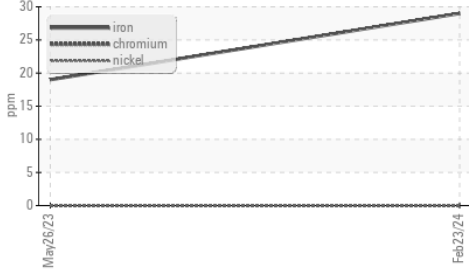
Silicon	ppm	ASTM D5185m	>20	4	2	---
Potassium	ppm	ASTM D5185m	>20	<1	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	1177	▲ 21318	---
Particles >6µm		ASTM D7647	>1300	432	▲ 4590	---
Particles >14µm		ASTM D7647	>160	63	● 188	---
Particles >21µm		ASTM D7647	>40	19	27	---
Particles >38µm		ASTM D7647	>10	2	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/16/13	▲ 22/19/15	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

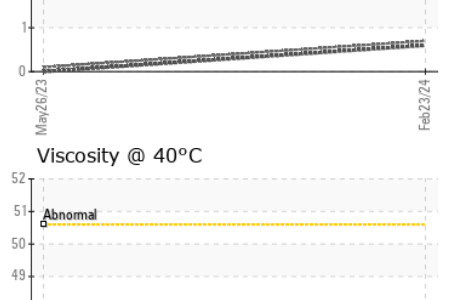
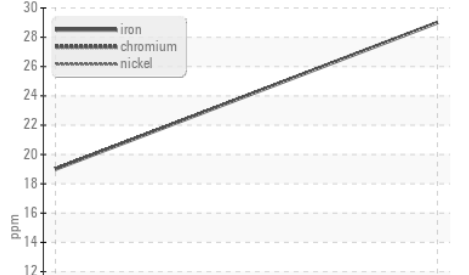
The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m		3	2	---
Boron	ppm	ASTM D5185m		1	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	<1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		59	45	---
Calcium	ppm	ASTM D5185m		189	163	---
Phosphorus	ppm	ASTM D5185m		524	563	---
Zinc	ppm	ASTM D5185m		681	727	---
Sulfur	ppm	ASTM D5185m		5765	5626	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.87	0.70	---
Visc @ 40°C	cSt	ASTM D445		43.0	43.0	---

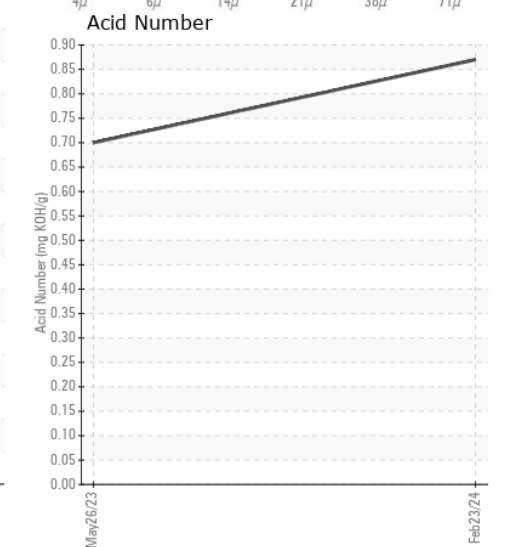
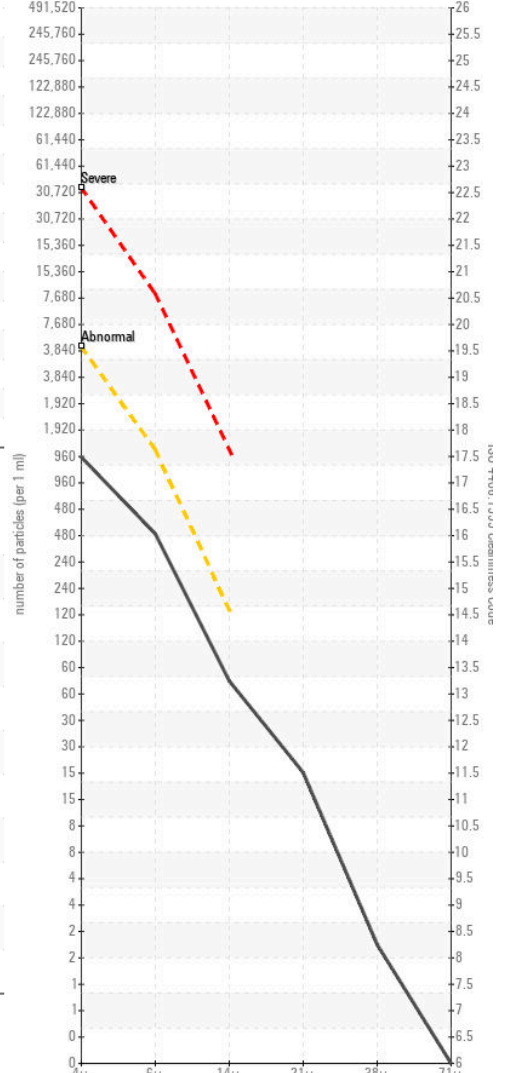
▲ Ferrous Alloys



▲ Ferrous Alloys



Particle Count



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195371 **Received** : 20 Mar 2024
Lab Number : 06123542 **Tested** : 25 Mar 2024
Unique Number : 10937693 **Diagnosed** : 25 Mar 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

PATRIOT DEVELOPMENT CORP
 22721 LADBROOK DRIVE STE 120
 STERLING, VA
 US 20166
 Contact: ROBERT MOSS
 robert.moss@patriotdev.net

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)

T:
F: