



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
RONALD L SENSENBACH
Machine Id
[RONALD L SENSENBACH] 010 685579-10
Component
Steering
Fluid
CHEVRON RANDO HDZ 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0068216	MW0055716	MW0052370
Sample Date		Client Info		17 Mar 2024	17 Sep 2023	17 Mar 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		Not Chngd	Not Chngd	N/A
Filter Changed		Client Info		Not Chngd	Not Chngd	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	3	1	1
Chromium	ppm	ASTM D5185m	>15	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	<1	<1
Lead	ppm	ASTM D5185m	>10	2	<1	0
Copper	ppm	ASTM D5185m	>50	14	11	10
Tin	ppm	ASTM D5185m	>5	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

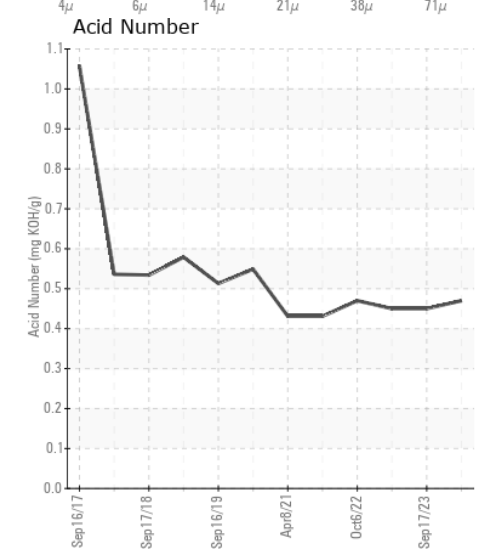
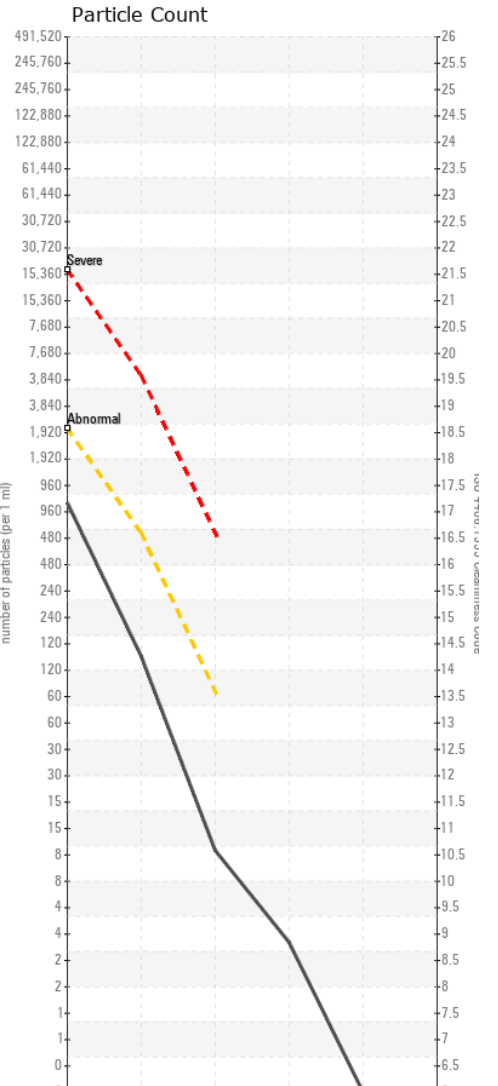
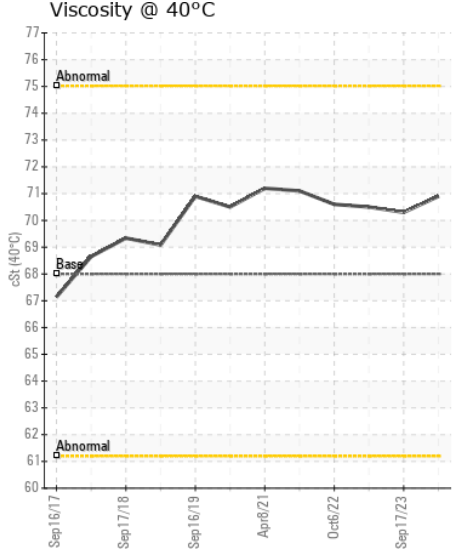
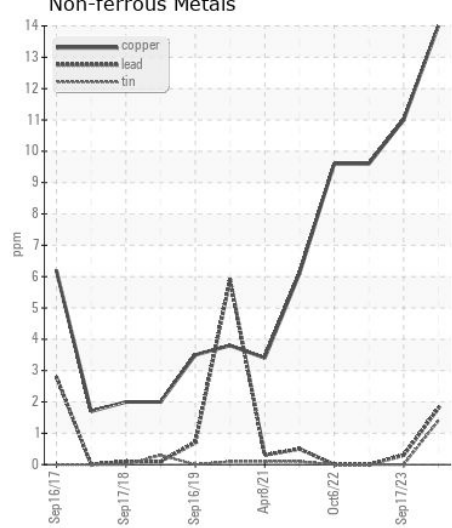
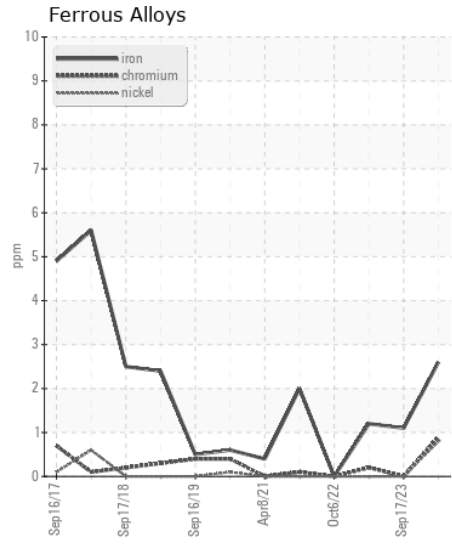
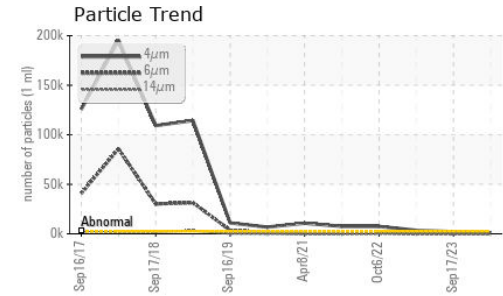
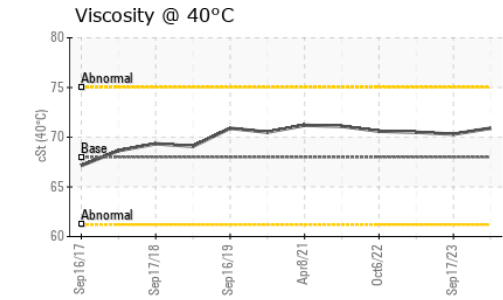
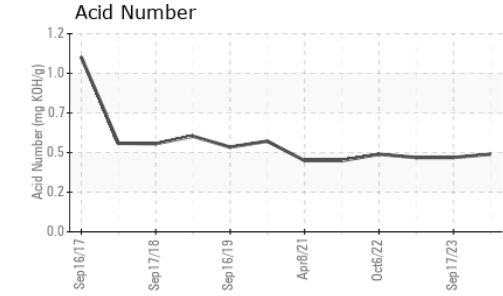
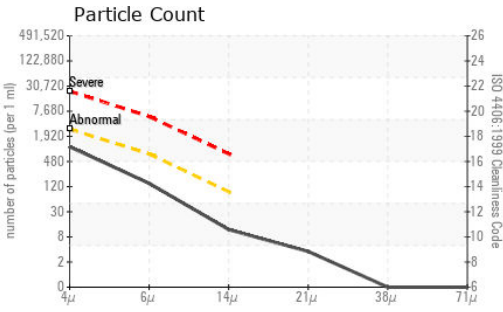
There is no indication of any contamination in the fluid. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	4	4	4
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>2500	950	2176	3520
Particles >6µm		ASTM D7647	>640	127	262	358
Particles >14µm		ASTM D7647	>80	10	17	19
Particles >21µm		ASTM D7647	>20	3	6	6
Particles >38µm		ASTM D7647	>4	0	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	17/14/10	18/15/11	19/16/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	0	<1
Boron	ppm	ASTM D5185m	0	<1	0	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	2	0	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	0	3	4	1
Calcium	ppm	ASTM D5185m	75	53	51	49
Phosphorus	ppm	ASTM D5185m	275	362	361	351
Zinc	ppm	ASTM D5185m	350	440	447	447
Sulfur	ppm	ASTM D5185m	550	970	962	1102
Acid Number (AN)	mg KOH/g	ASTM D8045		0.47	0.45	0.45
Visc @ 40°C	cSt	ASTM D445	68.0	70.9	70.3	70.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0068216 **Received** : 11 Apr 2024
Lab Number : 06146531 **Tested** : 12 Apr 2024
Unique Number : 10976609 **Diagnosed** : 15 Apr 2024 - Don Baldrige
Test Package : MAR 2 (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)