



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
100210
Component
Hydraulic System
Fluid
CHEVRON RANDO HDZ 32 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0833634	WC0778220	WC0497954
Sample Date		Client Info		04 Mar 2024	17 May 2023	20 May 2022
Machine Age	hrs	Client Info		2000	2000	5052
Oil Age	hrs	Client Info		2000	2000	0
Filter Age	hrs	Client Info		2000	2000	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	14	11	12
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	<1
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>75	2	1	2
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

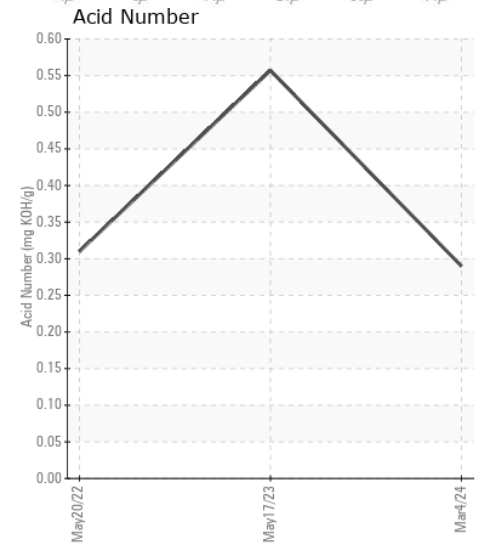
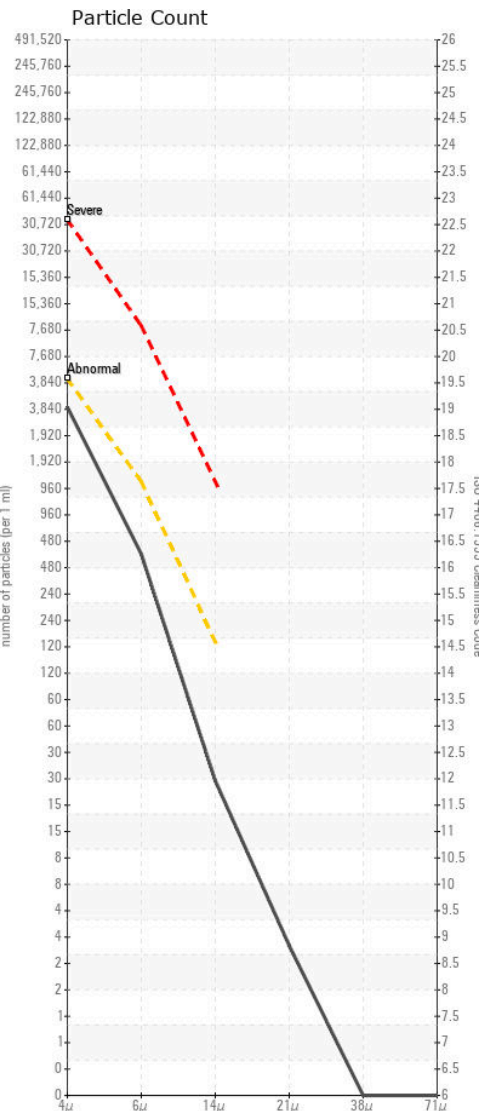
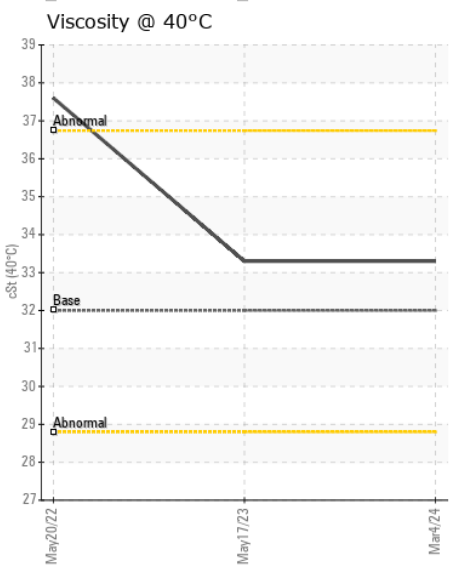
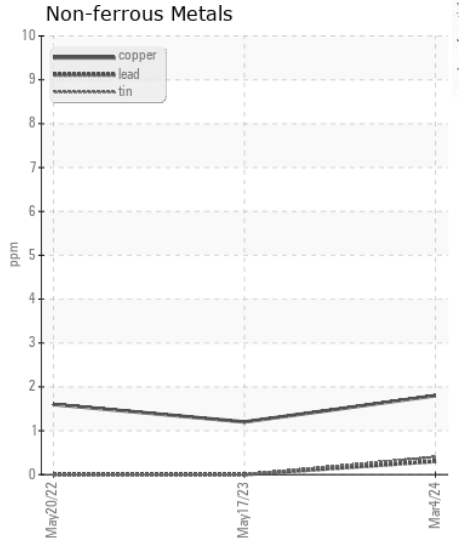
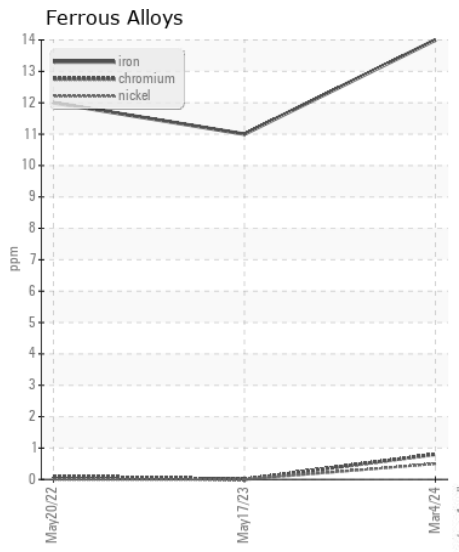
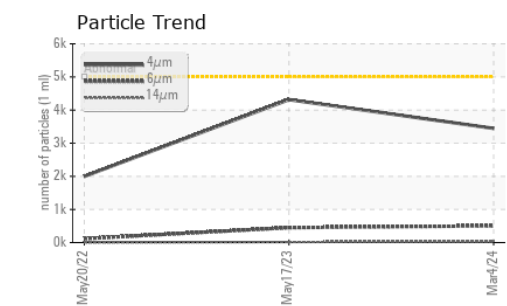
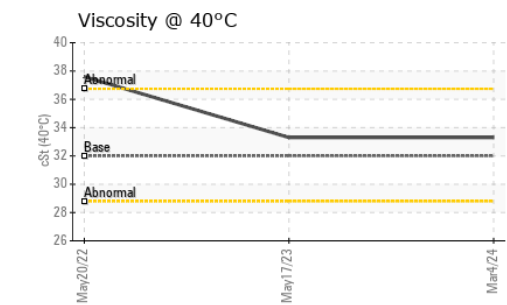
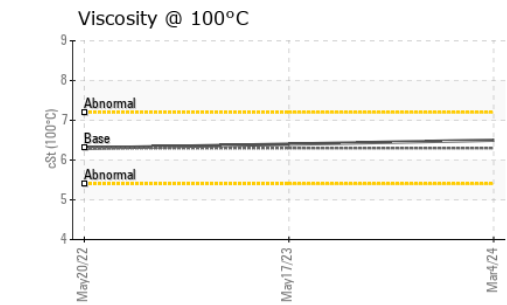
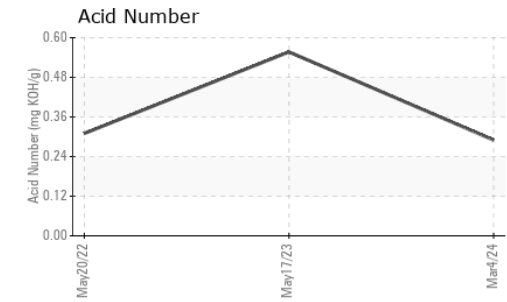
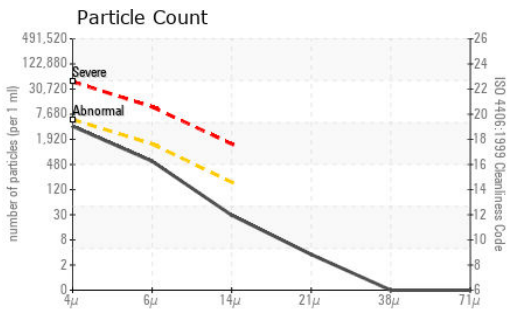
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	2	<1	<1
Potassium	ppm	ASTM D5185m	>20	<1	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	3446	4316	1998
Particles >6µm		ASTM D7647	>1300	504	450	118
Particles >14µm		ASTM D7647	>160	26	16	6
Particles >21µm		ASTM D7647	>40	3	6	2
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/16/12	19/16/11	18/14/10
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	>0.1	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	<1	<1
Boron	ppm	ASTM D5185m		1	0	0
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		2	<1	1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		4	3	1
Calcium	ppm	ASTM D5185m		74	81	84
Phosphorus	ppm	ASTM D5185m		339	376	343
Zinc	ppm	ASTM D5185m		439	454	397
Sulfur	ppm	ASTM D5185m		1599	1977	1711
Acid Number (AN)	mg KOH/g	ASTM D8045		0.29	0.557	0.31
Visc @ 40°C	cSt	ASTM D445	32.0	33.3	33.3	37.6
Visc @ 100°C	cSt	ASTM D445	6.3	6.5	6.4	6.3
Viscosity Index (VI)	Scale	ASTM D2270	153	152	147	116



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0833634 **Received** : 17 Jun 2024
Lab Number : 06211560 **Tested** : 18 Jun 2024
Unique Number : 11084424 **Diagnosed** : 18 Jun 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, VI)

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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)