



Area
DANIEL P MECKLENBORG
Machine Id
[DANIEL P MECKLENBORG] 012 608409-12
Component
Auxiliary Steering
Fluid
CHEVRON RANDO HDZ 68 (--- 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		MW06221814	MW0058570	MW0053477
Sample Date		Client Info		01 Jun 2024	04 Dec 2023	06 Jun 2023
Machine Age	hrs	Client Info		65000	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				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	2	1	1
Chromium	ppm	ASTM D5185m	>15	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	0	0	<1
Lead	ppm	ASTM D5185m	>10	1	10	1
Copper	ppm	ASTM D5185m	>50	23	24	23
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	▲ MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

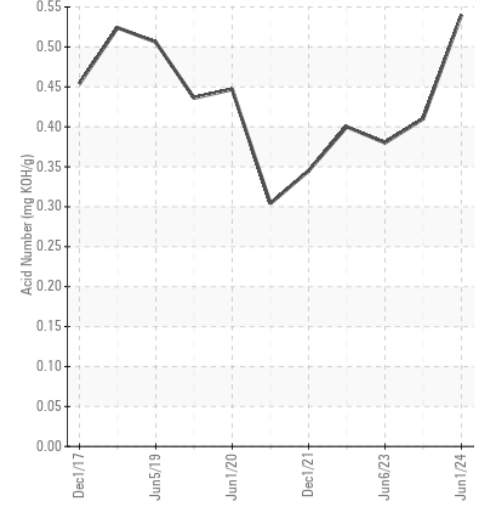
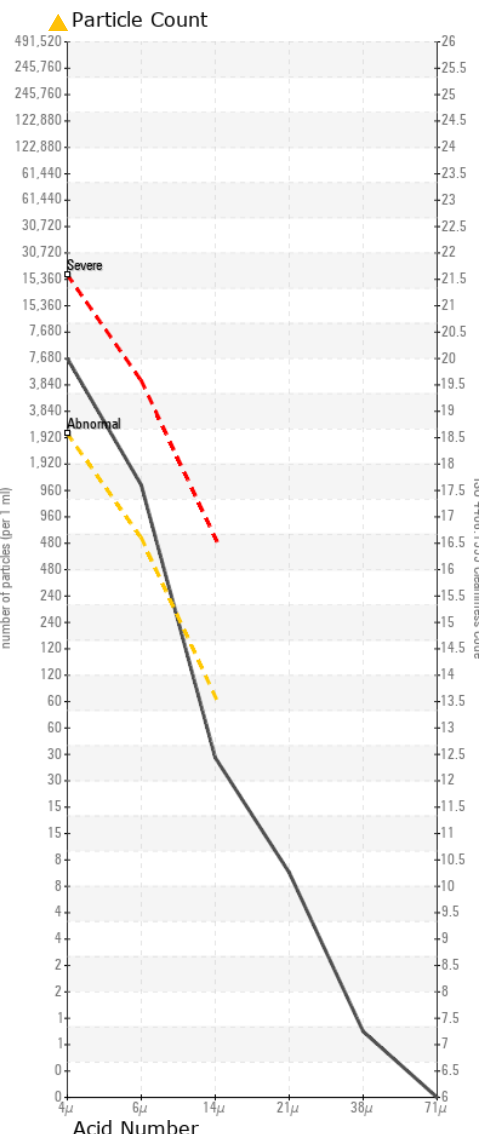
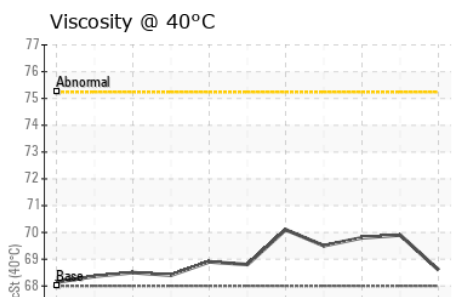
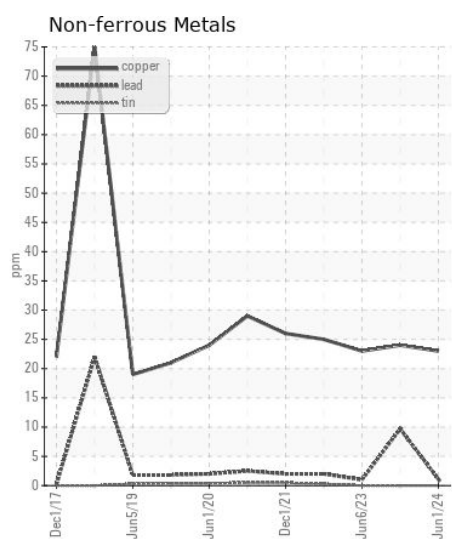
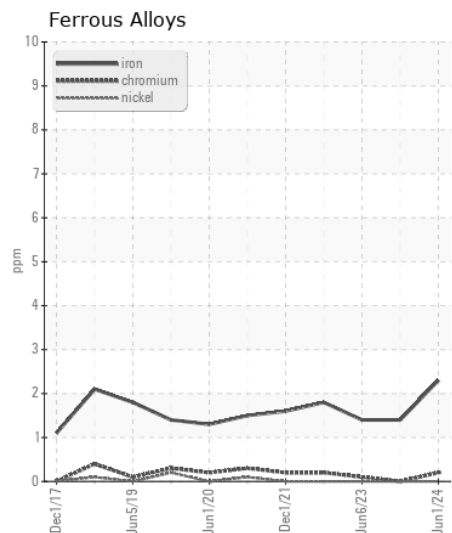
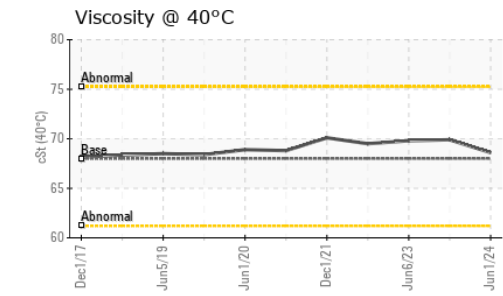
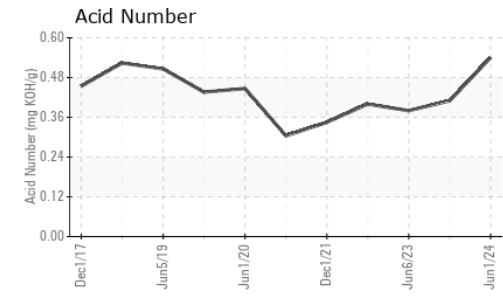
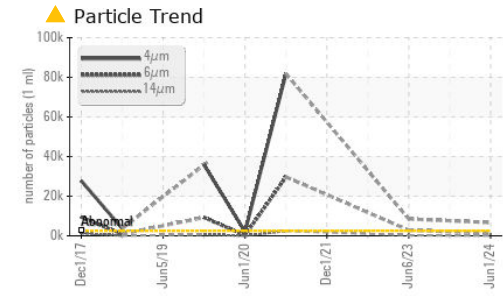
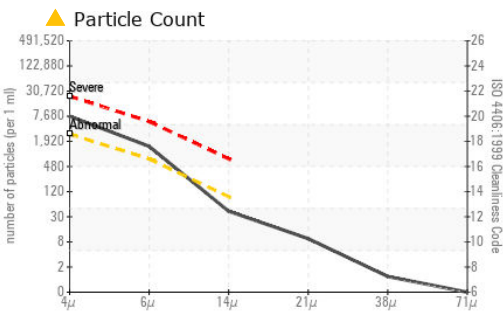
There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

Silicon	ppm	ASTM D5185m	>15	<1	2	0
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>2500	▲ 6690	---	▲ 8487
Particles >6µm		ASTM D7647	>640	● 1276	---	▲ 2836
Particles >14µm		ASTM D7647	>80	36	---	▲ 266
Particles >21µm		ASTM D7647	>20	8	---	▲ 66
Particles >38µm		ASTM D7647	>4	1	---	2
Particles >71µm		ASTM D7647	>3	0	---	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 20/17/12	---	▲ 20/19/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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	>0.2	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		1	3	<1
Boron	ppm	ASTM D5185m	0	1	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	0	10	0	13
Calcium	ppm	ASTM D5185m	75	150	86	117
Phosphorus	ppm	ASTM D5185m	275	369	328	389
Zinc	ppm	ASTM D5185m	350	469	438	482
Sulfur	ppm	ASTM D5185m	550	1425	1173	1602
Acid Number (AN)	mg KOH/g	ASTM D8045		0.54	0.41	0.38
Visc @ 40°C	cSt	ASTM D445	68.0	68.6	69.9	69.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06221814 **Received** : 26 Jun 2024
Lab Number : 06221814 **Tested** : 28 Jun 2024
Unique Number : 11100011 **Diagnosed** : 28 Jun 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)