



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
VIRGINIA INGRAM
Machine Id
[VIRGINIA INGRAM] 011 - FLANKING 661437-11 - FL
Component
Hydraulic System
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		MW0068856	MW0054158	MW0048858
Sample Date		Client Info		01 Jul 2024	30 Dec 2023	30 Jun 2023
Machine Age	hrs	Client Info		44159	41359	41330
Oil Age	hrs	Client Info		44159	41359	41330
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	0	0	0
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	0	0
Lead	ppm	ASTM D5185m	>20	1	2	<1
Copper	ppm	ASTM D5185m	>20	30	28	30
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

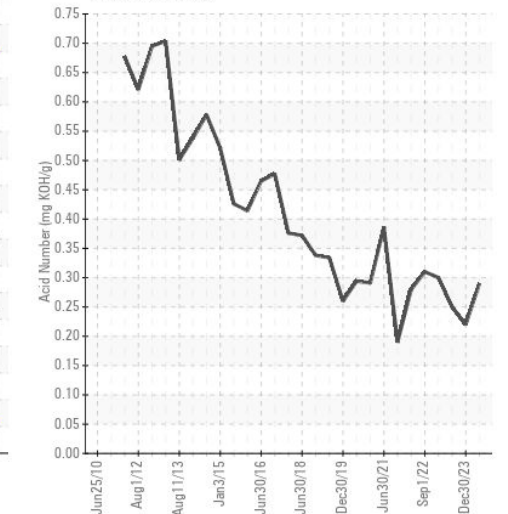
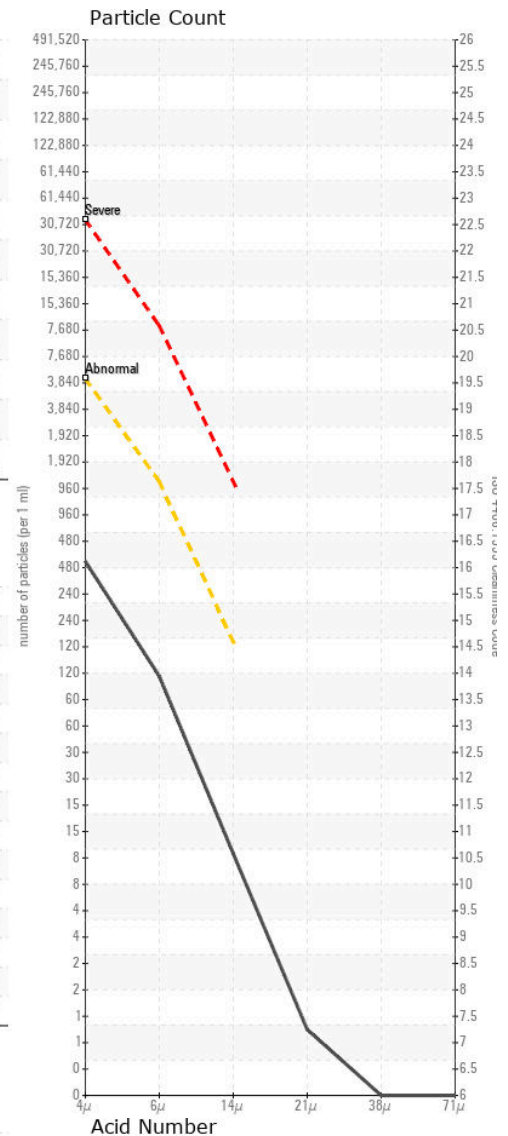
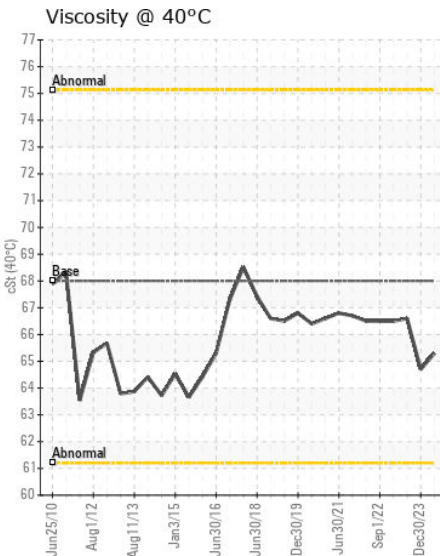
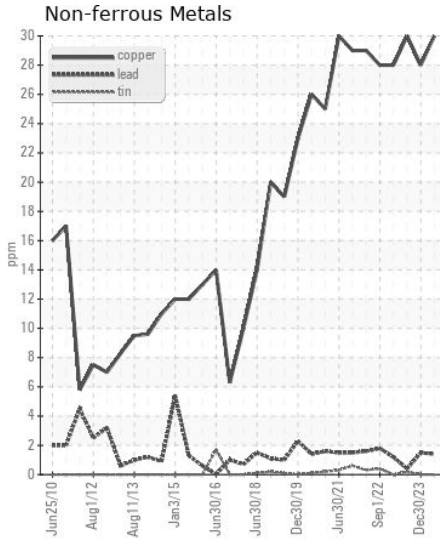
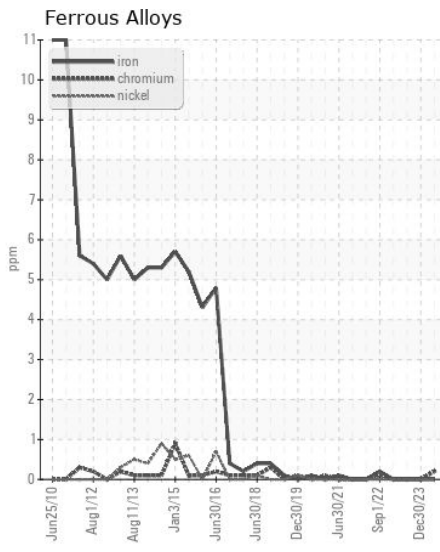
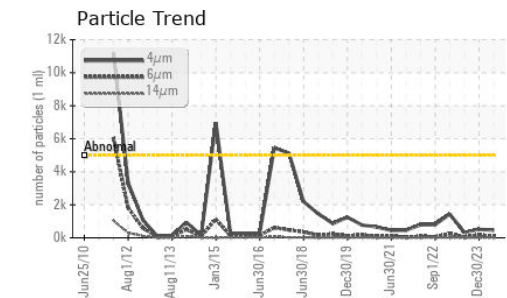
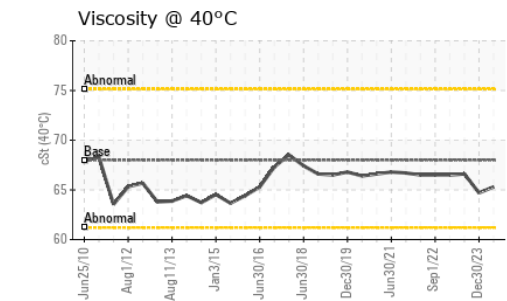
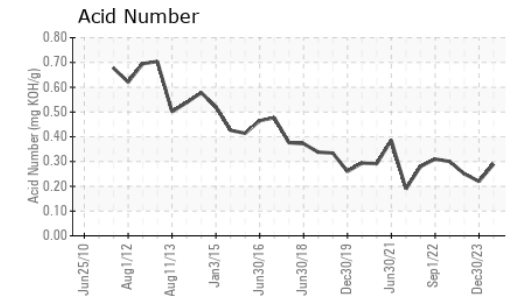
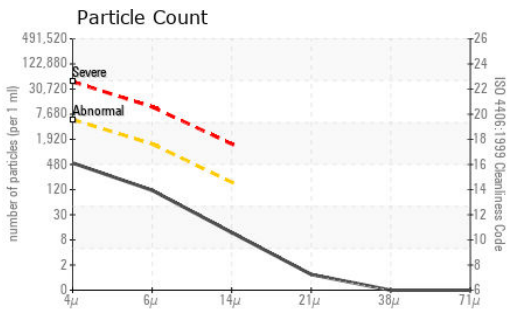
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<1	0	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	458	516	323
Particles >6µm		ASTM D7647	>1300	102	172	53
Particles >14µm		ASTM D7647	>160	10	15	5
Particles >21µm		ASTM D7647	>40	1	2	0
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/14/10	16/15/11	16/13/10
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	>0.05	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		0	<1	1
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	0	<1	0	0
Calcium	ppm	ASTM D5185m	75	26	35	36
Phosphorus	ppm	ASTM D5185m	275	350	382	355
Zinc	ppm	ASTM D5185m	350	425	438	390
Sulfur	ppm	ASTM D5185m	550	977	1069	950
Acid Number (AN)	mg KOH/g	ASTM D8045		0.29	0.22	0.25
Visc @ 40°C	cSt	ASTM D445	68.0	65.3	64.7	66.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0068856

Lab Number : 06230743

Unique Number : 11114236

Test Package : MAR 2

Received : 08 Jul 2024

Tested : 10 Jul 2024

Diagnosed : 10 Jul 2024 - Jonathan Hester

INGRAM BARGE

900 S 3RD ST

PADUCAH, KY

US 42003

Contact: JEFF BISHOP

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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)