



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**LIEBHERR A944C-LI C-44 (S/N 028924-194)**  
Component  
**Hydraulic System**  
Fluid  
**CHEVRON RANDO HD 68 (143 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0899813</b>	WC0692149	WC0669235
Sample Date		Client Info		<b>08 Feb 2024</b>	01 Aug 2022	28 Mar 2022
Machine Age	hrs	Client Info		<b>33600</b>	26858	21796
Oil Age	hrs	Client Info		<b>910</b>	2000	1179
Filter Age	hrs	Client Info		<b>910</b>	2000	1179
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>&lt;1</b>	<1	0
Chromium	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

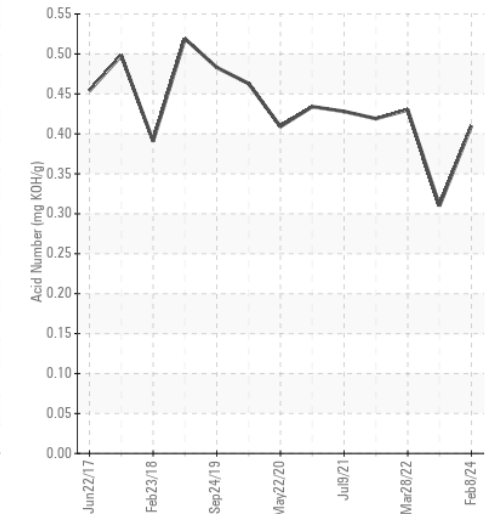
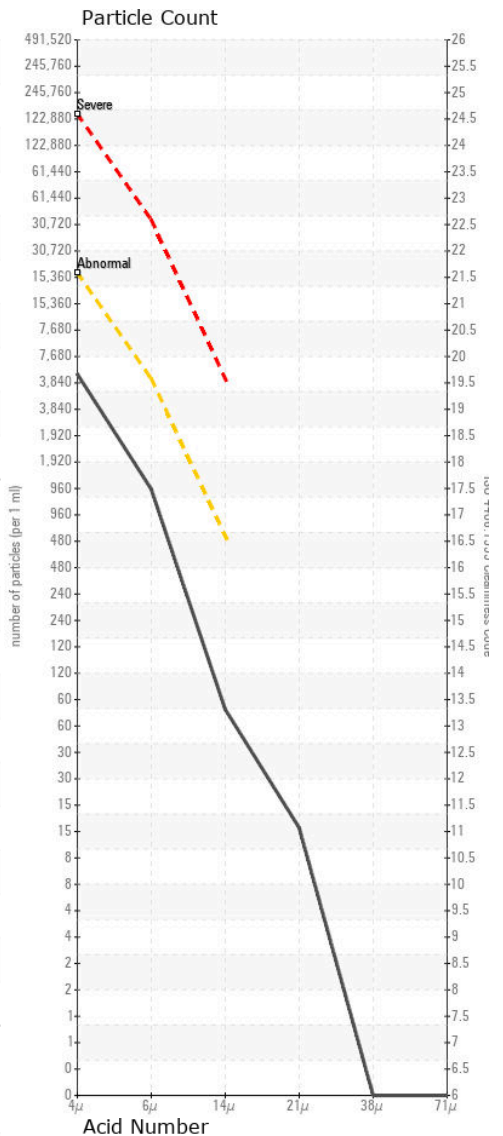
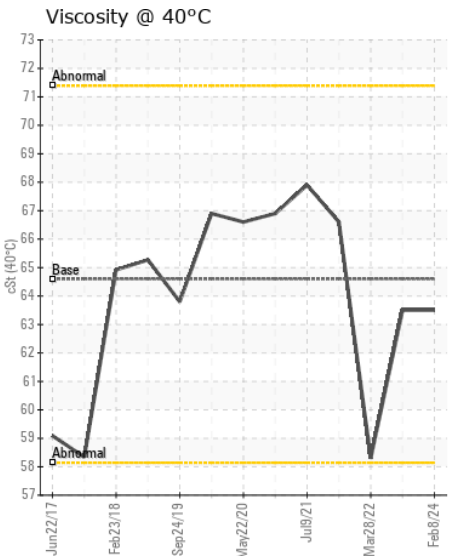
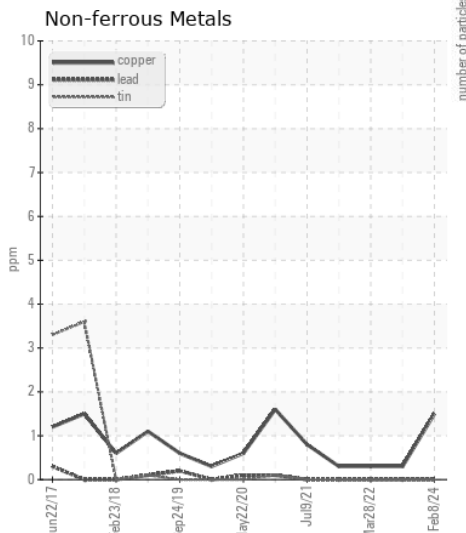
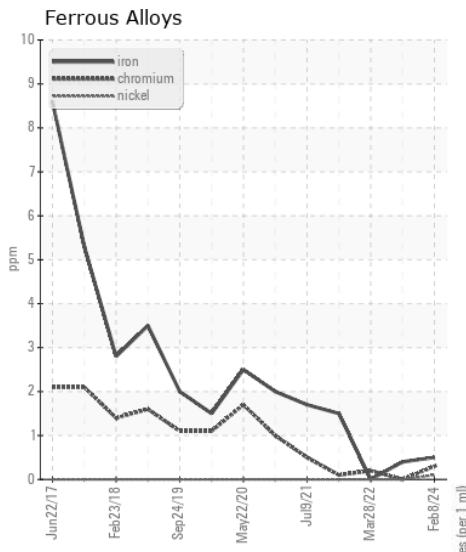
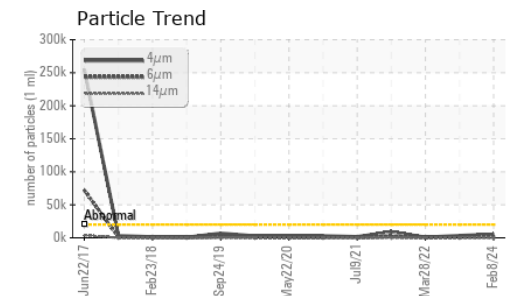
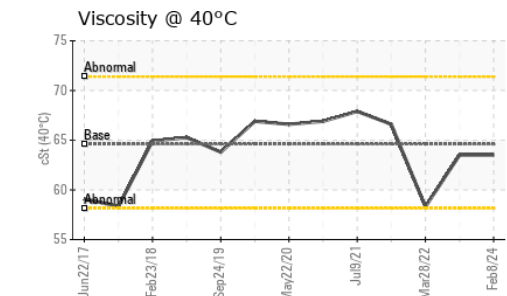
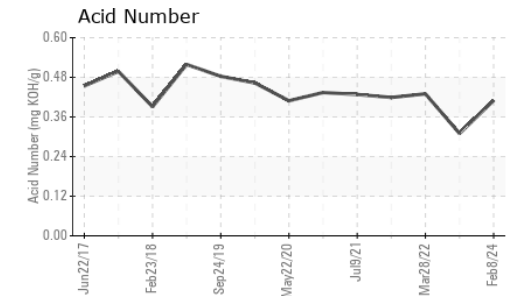
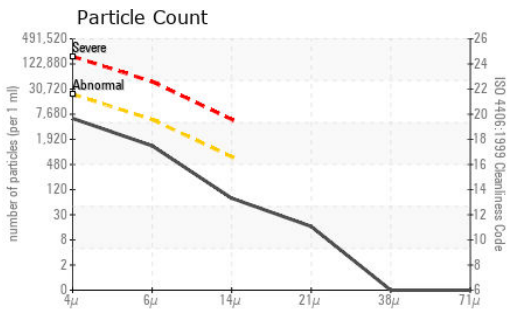
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>5315</b>	3420	849
Particles >6µm		ASTM D7647	>5000	<b>1176</b>	734	76
Particles >14µm		ASTM D7647	>640	<b>66</b>	27	8
Particles >21µm		ASTM D7647	>160	<b>14</b>	3	3
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/17/13</b>	19/17/12	17/13/10
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>&lt;1</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	<1	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>2</b>	<1	4
Calcium	ppm	ASTM D5185m		<b>57</b>	56	75
Phosphorus	ppm	ASTM D5185m		<b>341</b>	323	326
Zinc	ppm	ASTM D5185m		<b>457</b>	427	432
Sulfur	ppm	ASTM D5185m		<b>915</b>	1039	833
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.41</b>	0.31	0.43
Visc @ 40°C	cSt	ASTM D445	64.6	<b>63.5</b>	63.5	58.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0899813  
**Lab Number** : 06088708  
**Unique Number** : 10876153  
**Test Package** : CONST

**FRANKLIN IRON & METAL CORP**  
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 US 45403  
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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)