



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R954H DV C-35 (S/N 000369-569)
Component
Hydraulic System
Fluid
CHEVRON RANDO HD 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0920320	WC0879509	WC0819377
Sample Date		Client Info		13 Jun 2024	26 Dec 2023	10 Jun 2023
Machine Age	hrs	Client Info		49078	48127	47125
Oil Age	hrs	Client Info		1953	1002	47125
Filter Age	hrs	Client Info		0	0	47125
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	5	6	4
Chromium	ppm	ASTM D5185m	>15	5	3	4
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>8	2	2	<1
Lead	ppm	ASTM D5185m	>5	0	<1	0
Copper	ppm	ASTM D5185m	>15	3	3	1
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

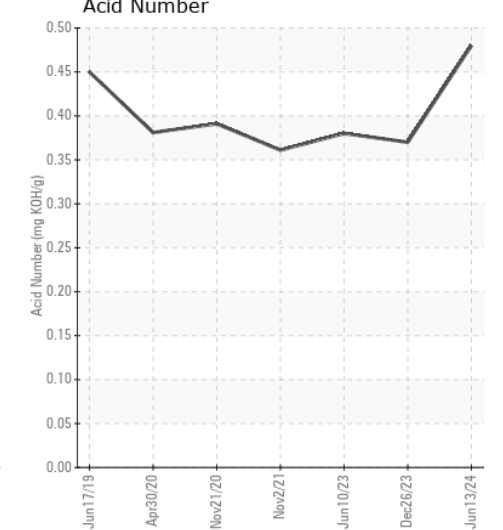
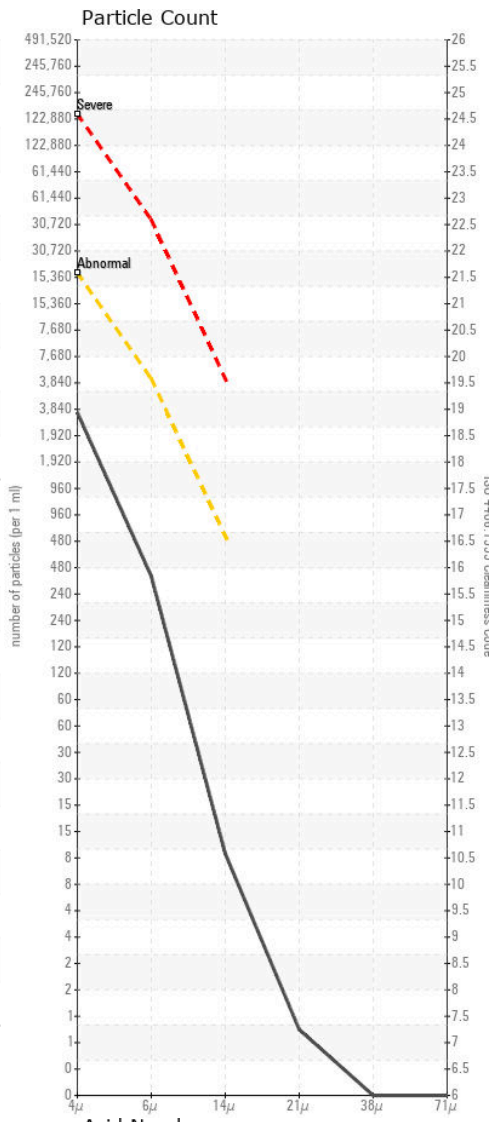
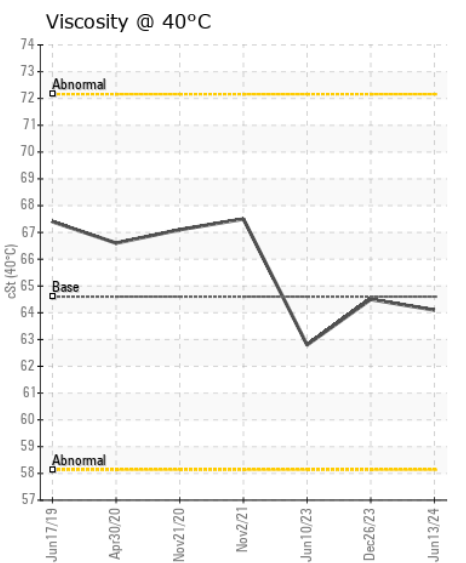
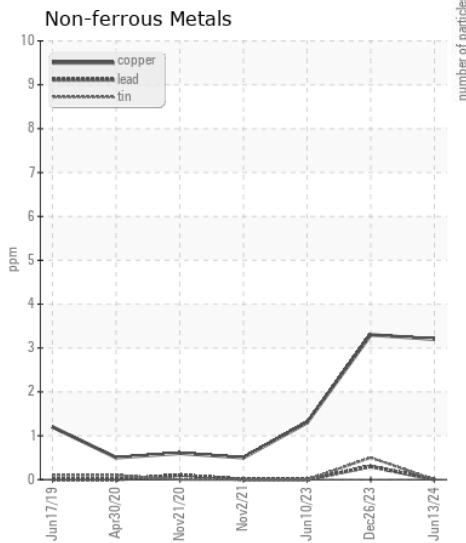
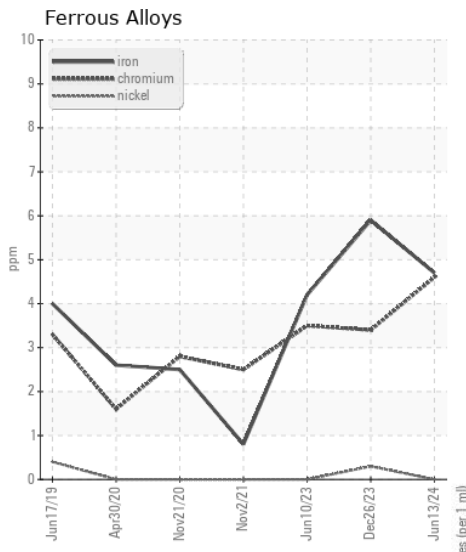
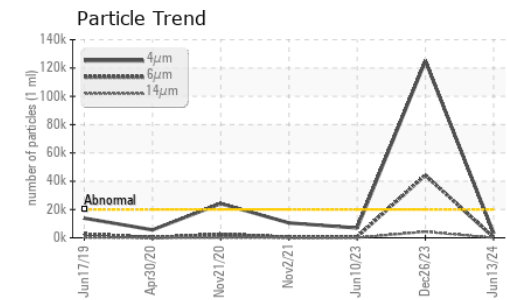
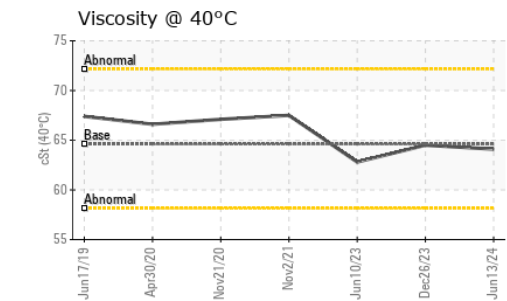
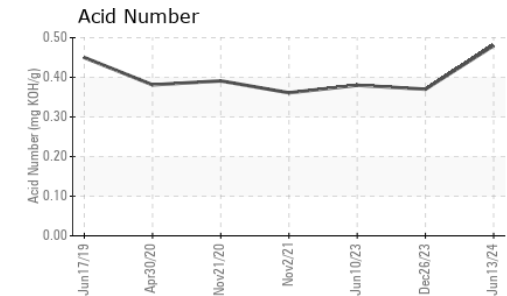
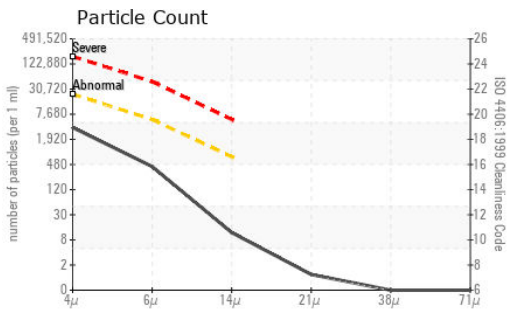
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>25	<1	<1	0
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	3216	▲ 125052	6951
Particles >6µm		ASTM D7647	>5000	377	▲ 44193	712
Particles >14µm		ASTM D7647	>640	10	▲ 4327	34
Particles >21µm		ASTM D7647	>160	1	▲ 1105	7
Particles >38µm		ASTM D7647	>40	0	39	0
Particles >71µm		ASTM D7647	>10	0	3	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/16/10	▲ 24/23/19	20/17/12
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	>0.1	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		0	0	<1
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		0	10	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		3	3	0
Calcium	ppm	ASTM D5185m		75	74	77
Phosphorus	ppm	ASTM D5185m		326	380	373
Zinc	ppm	ASTM D5185m		439	445	483
Sulfur	ppm	ASTM D5185m		855	968	1137
Acid Number (AN)	mg KOH/g	ASTM D8045		0.48	0.37	0.38
Visc @ 40°C	cSt	ASTM D445	64.6	64.1	64.5	62.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0920320
Lab Number : 06214610
Unique Number : 11087474
Test Package : CONST

Received : 19 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

FRANKLIN IRON & METAL CORP

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 DAYTON, OH
 US 45403

Contact: BILL PITTL JR
 parts@frankliniron.com

T: (937)253-8184

F:

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)