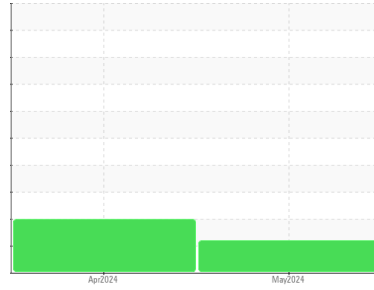


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
LEROI VRUOXY0005 (S/N 5680X173)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

● **Recommendation**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please note that this is a corrected copy.

Wear

All component wear rates are normal.

● **Contamination**

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

Fluid Condition

The condition of the oil is acceptable for the time in service. Insufficient sample was received to conduct all the routine laboratory tests.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO90004210	TO90004168	---
Sample Date	Client Info			02 May 2024	23 Apr 2024	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Oil Changed	Client Info			Changed	N/A	---
Sample Status				ATTENTION	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	12	9	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m		<1	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	2	1	---
Lead	ppm	ASTM D5185m	>25	<1	<1	---
Copper	ppm	ASTM D5185m	>50	<1	2	---
Tin	ppm	ASTM D5185m	>15	<1	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
Cadmium	ppm	ASTM D5185m		<1	0	---

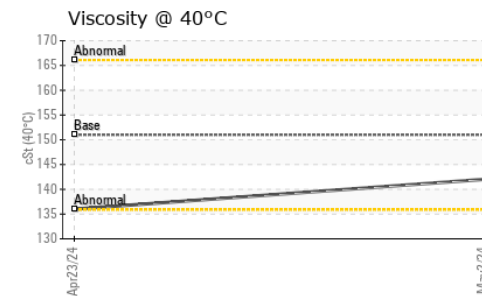
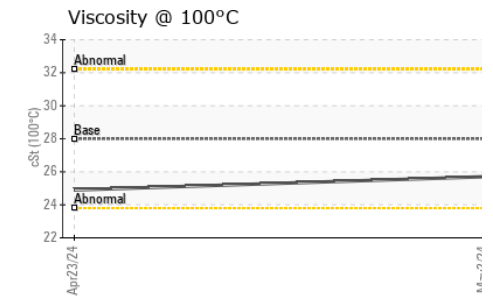
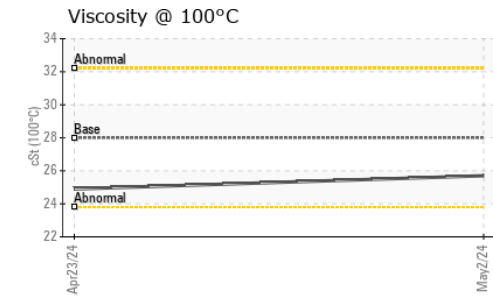
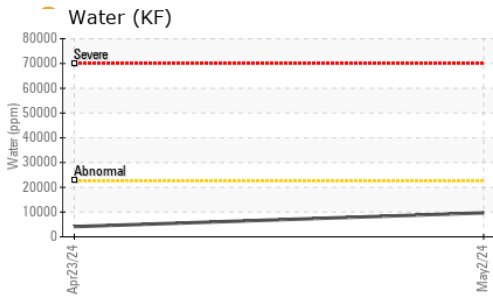
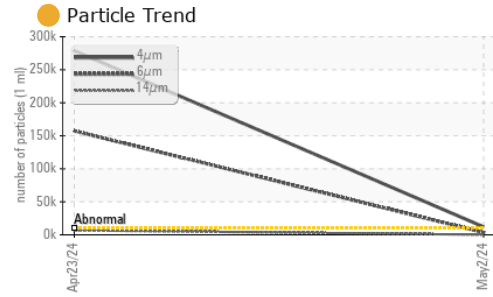
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	---
Barium	ppm	ASTM D5185m	0	1	0	---
Molybdenum	ppm	ASTM D5185m	0	<1	<1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	0	1	0	---
Calcium	ppm	ASTM D5185m	0	5	0	---
Phosphorus	ppm	ASTM D5185m	0	68	42	---
Zinc	ppm	ASTM D5185m	0	6	0	---
Sulfur	ppm	ASTM D5185m	0	1907	2074	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	<1	---
Sodium	ppm	ASTM D5185m		4	1	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Water	%	ASTM D6304	>2.26	0.968	0.412	---
ppm Water	ppm	ASTM D6304	>22600	9680	4120	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	● 12001	▲ 278722	---
Particles >6µm		ASTM D7647	>2500	● 3494	▲ 157292	---
Particles >14µm		ASTM D7647	>320	107	▲ 6773	---
Particles >21µm		ASTM D7647	>80	15	▲ 801	---
Particles >38µm		ASTM D7647	>20	0	7	---
Particles >71µm		ASTM D7647	>4	0	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● 21/19/14	▲ 25/24/20	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		---	0.50	---

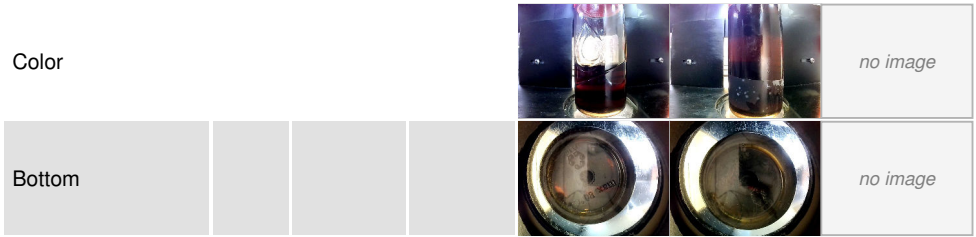
OIL ANALYSIS REPORT



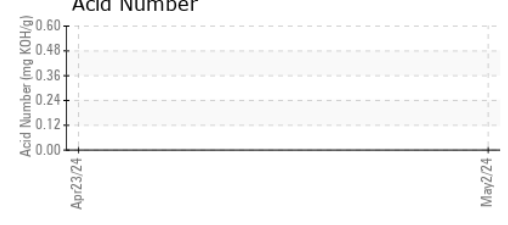
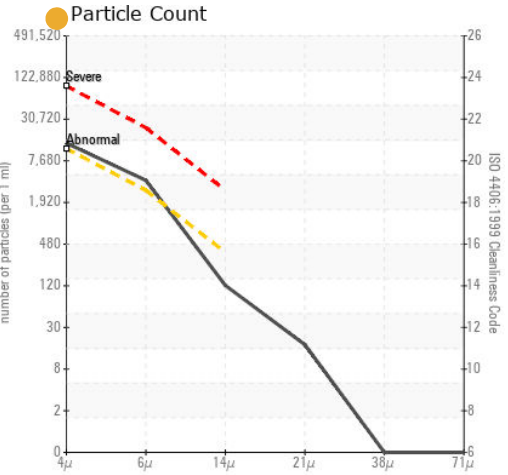
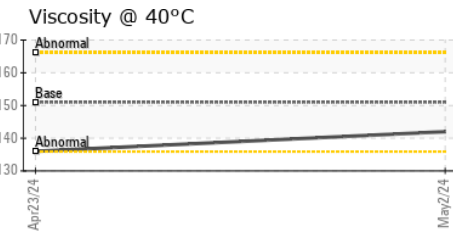
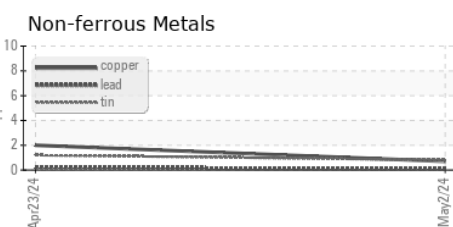
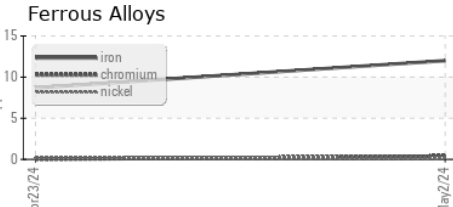
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>2.26	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	142	136
Visc @ 100°C	cSt	ASTM D445	28	25.7	24.9
Viscosity Index (VI)	Scale	ASTM D2270	224	216	217

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004210 **Received** : 13 May 2024
Lab Number : 06177757 **Tested** : 13 Jun 2024
Unique Number : 11023810 **Diagnosed** : 13 Jun 2024 - Doug Bogart
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

CIMARRON ENERGY - CARLSBAD
 4425 GRANDI RD, UNIT F
 CARLSBAD, NM
 UM 88220-8923
 Contact: CARLOS LEAL
 cleal@cimarron.com

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)