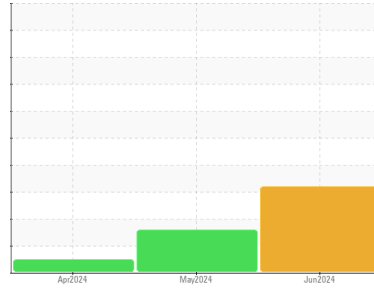


OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
NK 112609 (S/N SC235682)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

- Recommendation**
 We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.
- Wear**
 All component wear rates are normal.
- Contamination**
 There is a high amount of particulates present in the oil. There is a high concentration of water present in the oil.
- Fluid Condition**
 The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO90004062	TO90004166	TO90004022
Sample Date	Client Info			11 Jun 2024	07 May 2024	04 Apr 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

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

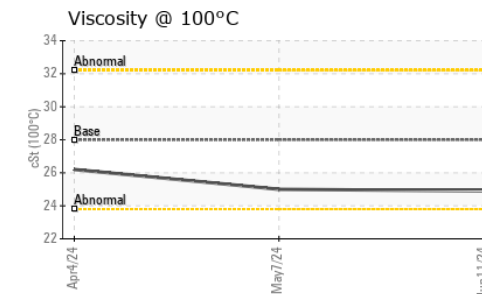
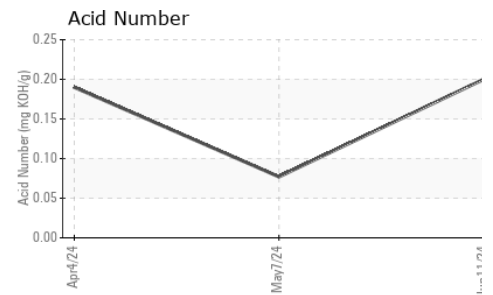
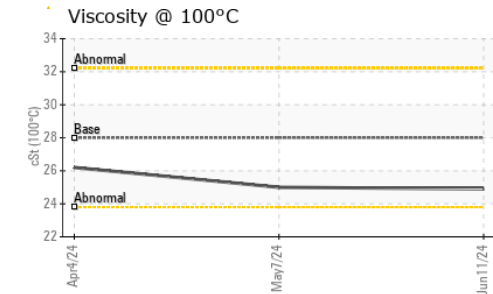
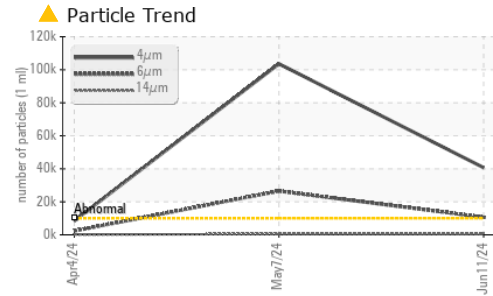
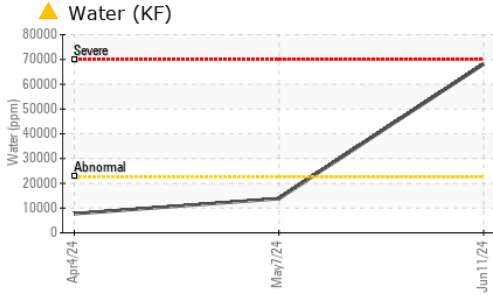
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	6	0	0
Barium	ppm	ASTM D5185m	0	0	1	0
Molybdenum	ppm	ASTM D5185m	0	0	<1	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	0	3	<1	<1
Calcium	ppm	ASTM D5185m	0	0	7	5
Phosphorus	ppm	ASTM D5185m	0	18	34	14
Zinc	ppm	ASTM D5185m	0	8	3	3
Sulfur	ppm	ASTM D5185m	0	154	111	139

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	1	0
Sodium	ppm	ASTM D5185m		3	2	4
Potassium	ppm	ASTM D5185m	>20	6	2	2
Water	%	ASTM D6304	>2.26	▲ 6.81	1.38	0.771
ppm Water	ppm	ASTM D6304	>22600	▲ 68100	13800	7715

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ 40685	▲ 103580	8540
Particles >6µm		ASTM D7647	>2500	▲ 10678	▲ 26517	2320
Particles >14µm		ASTM D7647	>320	▲ 373	▲ 471	134
Particles >21µm		ASTM D7647	>80	57	37	23
Particles >38µm		ASTM D7647	>20	2	1	1
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 23/21/16	▲ 24/22/16	20/18/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.20	0.077	0.19

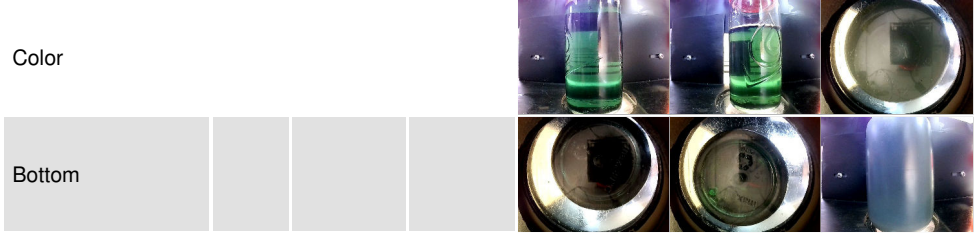
OIL ANALYSIS REPORT



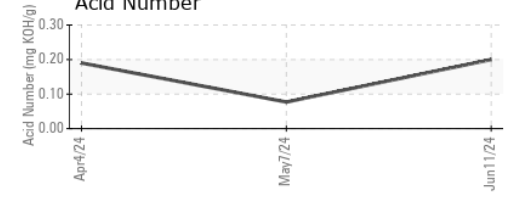
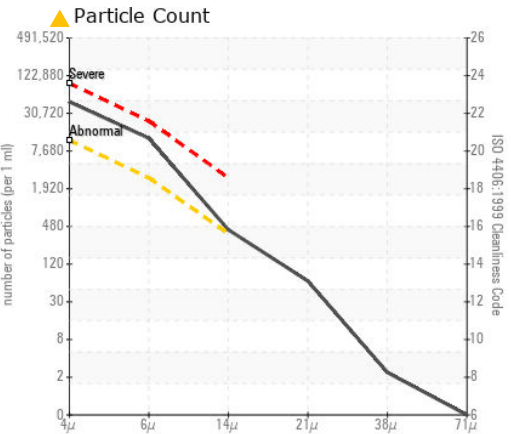
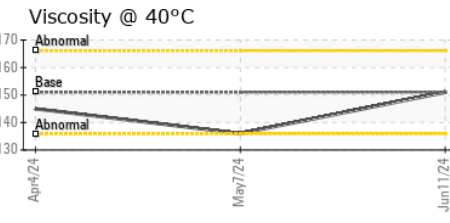
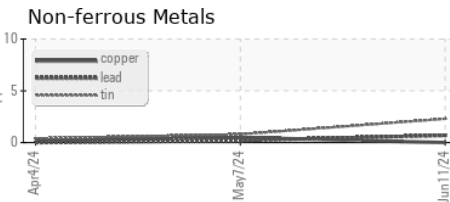
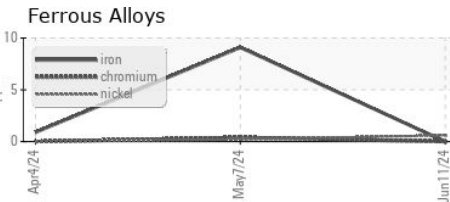
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	LIGHT	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	136	145
Visc @ 100°C	cSt	ASTM D445	28	25.0	26.2
Viscosity Index (VI)	Scale	ASTM D2270	224	199	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. : TO90004062 **Received** : 20 Jun 2024
Lab Number : 06216321 **Tested** : 24 Jun 2024
Unique Number : 11089185 **Diagnosed** : 24 Jun 2024 - Jonathan Hester
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)