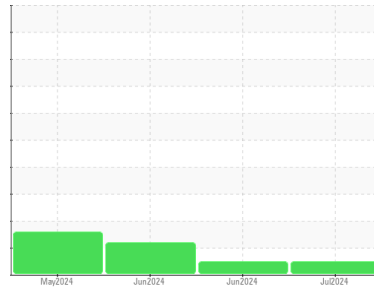


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
112818 - HR2 (S/N SC329450)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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			TO90004499	TO90004517	TO90004070
Sample Date	Client Info			10 Jul 2024	25 Jun 2024	06 Jun 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	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	0	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m		1	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	<1
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>50	6	<1	0
Tin	ppm	ASTM D5185m	>15	1	<1	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

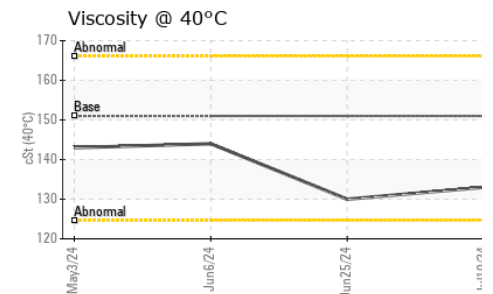
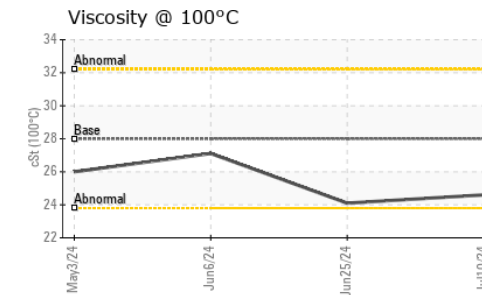
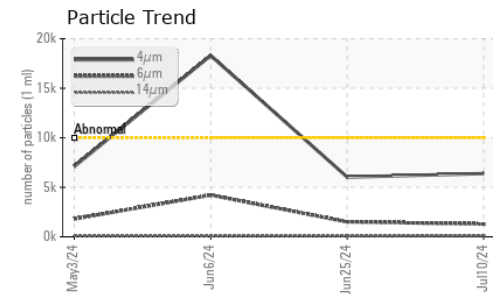
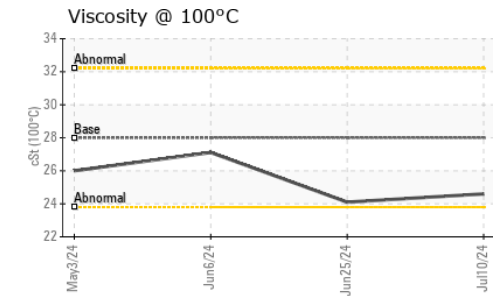
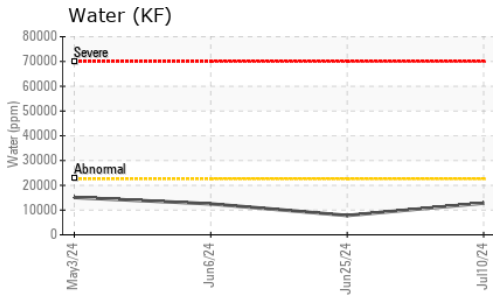
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	0	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		1	0	<1
Magnesium	ppm	ASTM D5185m	0	3	<1	2
Calcium	ppm	ASTM D5185m	0	0	0	2
Phosphorus	ppm	ASTM D5185m	0	8	15	7
Zinc	ppm	ASTM D5185m	0	0	0	8
Sulfur	ppm	ASTM D5185m	0	226	300	80

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	1	<1	2
Sodium	ppm	ASTM D5185m		3	<1	0
Potassium	ppm	ASTM D5185m	>20	4	1	5
Water	%	ASTM D6304	>2.26	1.28	0.781	1.25
ppm Water	ppm	ASTM D6304	>22600	12800	7810	12500

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	6383	6024	● 18296
Particles >6µm		ASTM D7647	>2500	1286	1506	● 4216
Particles >14µm		ASTM D7647	>320	102	67	66
Particles >21µm		ASTM D7647	>80	39	10	7
Particles >38µm		ASTM D7647	>20	6	0	0
Particles >71µm		ASTM D7647	>4	1	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/17/14	20/18/13	● 21/19/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.057	0.066	0.042

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	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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	133	130
Visc @ 100°C	cSt	ASTM D445	28	24.6	24.1
Viscosity Index (VI)	Scale	ASTM D2270	224	219	218

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS
<p>Ferrous Alloys</p> <p>Non-ferrous Metals</p> <p>Viscosity @ 40°C</p> <p>Particle Count</p> <p>Acid Number</p>



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004499 **Received** : 16 Jul 2024
Lab Number : 06238444 **Tested** : 18 Jul 2024
Unique Number : 11127278 **Diagnosed** : 18 Jul 2024 - Don Baldrige
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)