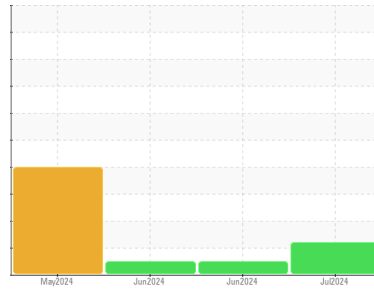


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

**111452 - LP3 (S/N SC287813)**

Component

**Compressor**

Fluid

**CIMARRON HB-150 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

**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 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			<b>TO90004500</b>	TO90004516	TO90004141
Sample Date	Client Info			<b>10 Jul 2024</b>	25 Jun 2024	06 Jun 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	0	<b>2</b>	0	3
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	2
Phosphorus	ppm	ASTM D5185m	0	<b>8</b>	0	7
Zinc	ppm	ASTM D5185m	0	<b>0</b>	0	6
Sulfur	ppm	ASTM D5185m	0	<b>166</b>	0	143

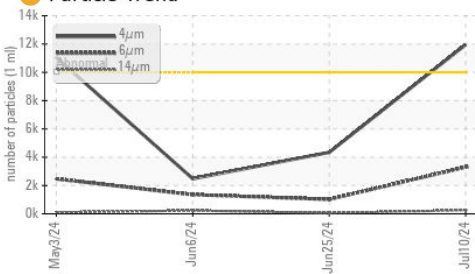
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	1	5
Water	%	ASTM D6304	>2.26	<b>1.04</b>	0.870	1.04
ppm Water	ppm	ASTM D6304	>22600	<b>10400</b>	8700	10400

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>11954</b>	4343	2479
Particles >6µm		ASTM D7647	>2500	<b>3304</b>	1020	1351
Particles >14µm		ASTM D7647	>320	<b>253</b>	56	230
Particles >21µm		ASTM D7647	>80	<b>50</b>	11	77
Particles >38µm		ASTM D7647	>20	<b>1</b>	0	12
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>21/19/15</b>	19/17/13	18/18/15

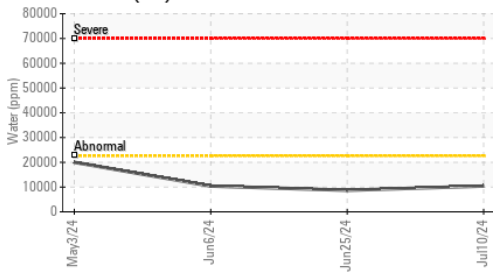
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.059</b>	0.101	0.07

# OIL ANALYSIS REPORT

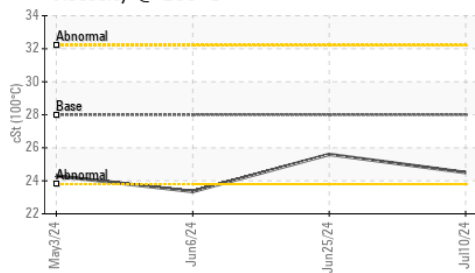
## Particle Trend



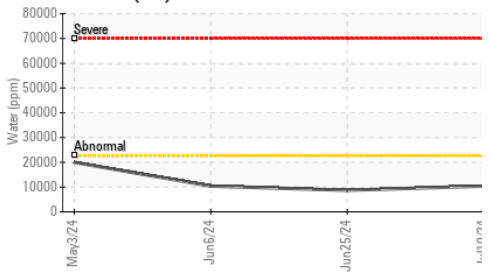
## Water (KF)



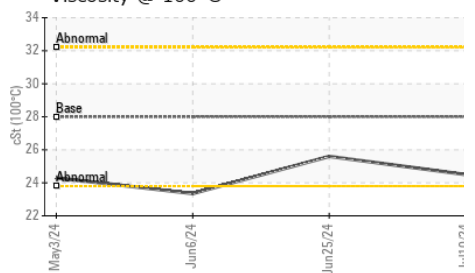
## Viscosity @ 100°C



## Water (KF)



## Viscosity @ 100°C



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	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	123	157
Visc @ 100°C	cSt	ASTM D445	28	25.6	23.35
Viscosity Index (VI)	Scale	ASTM D2270	224	243	178

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

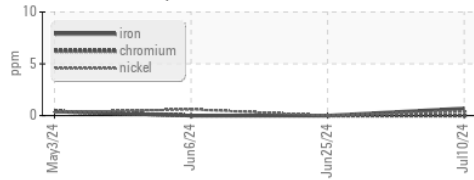


Bottom

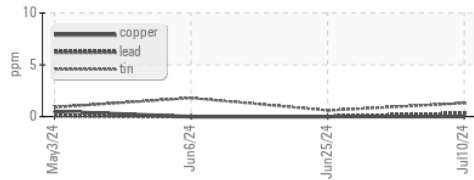


## GRAPHS

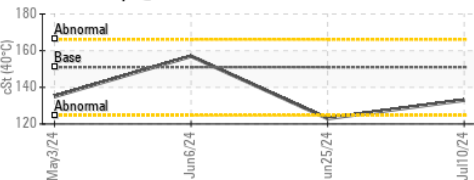
### Ferrous Alloys



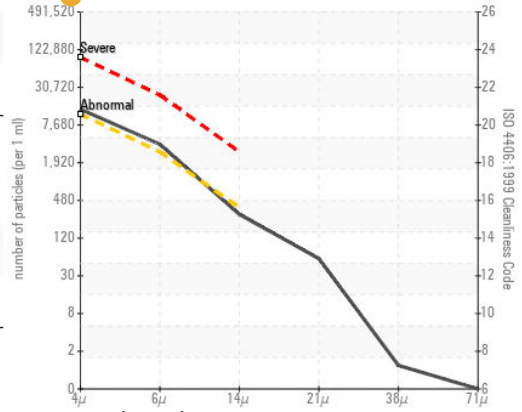
### Non-ferrous Metals



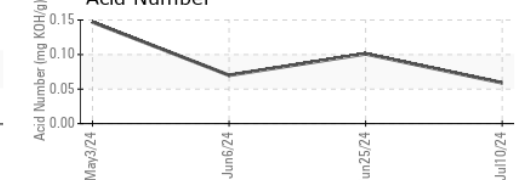
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : TO90004500

**Lab Number** : 06238437

**Unique Number** : 11127271

**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

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)

**Received** : 16 Jul 2024

**Tested** : 18 Jul 2024

**Diagnosed** : 18 Jul 2024 - Don Baldrige

**CIMARRON ENERGY - CARLSBAD**

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CARLSBAD, NM

UM 88220-8923

Contact: CARLOS LEAL

cleal@cimarron.com

T:

F: