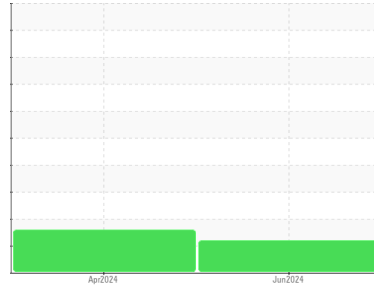


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**NK VRUOXY0069 (S/N LE11369)**  
 Component  
**Compressor**  
 Fluid  
**CIMARRON HB-150 (--- GAL)**

**DIAGNOSIS**

**Recommendation**  
 Oil and filter change at the time of sampling has been noted. 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. The water content is negligible.

**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>TO90004512</b>	TO90003966	---
Sample Date	Client Info			<b>18 Jun 2024</b>	11 Apr 2024	---
Machine Age	hrs	Client Info		<b>0</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	N/A	---
Sample Status				<b>ATTENTION</b>	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>2</b>	3	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m		<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	4	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>50	<b>0</b>	<1	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	---

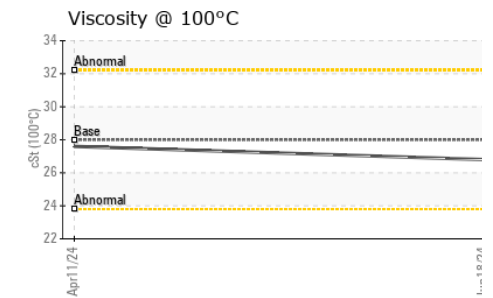
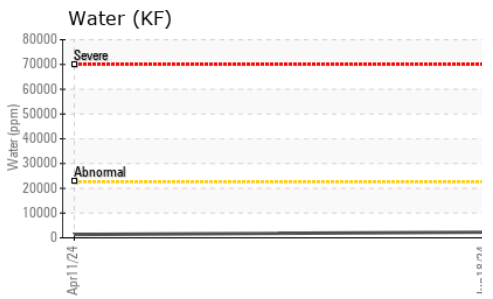
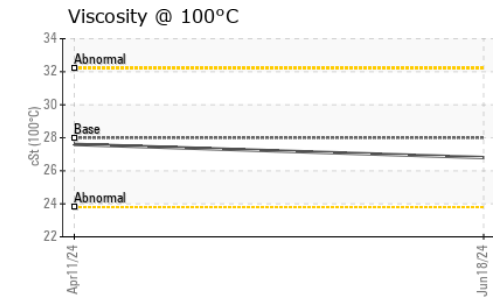
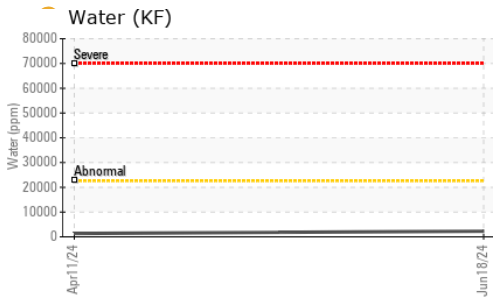
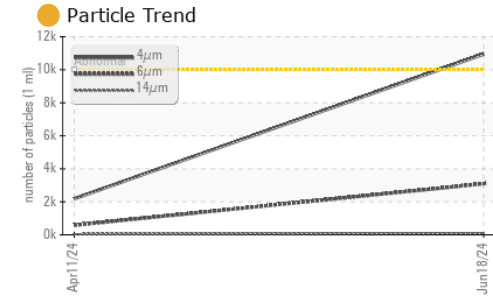
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Calcium	ppm	ASTM D5185m	0	<b>0</b>	2	---
Phosphorus	ppm	ASTM D5185m	0	<b>7</b>	424	---
Zinc	ppm	ASTM D5185m	0	<b>6</b>	2	---
Sulfur	ppm	ASTM D5185m	0	<b>92</b>	2978	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>0</b>	2	---
Sodium	ppm	ASTM D5185m		<b>3</b>	5	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	1	---
Water	%	ASTM D6304	>2.26	<b>0.229</b>	▲ 0.135	---
ppm Water	ppm	ASTM D6304	>22600	<b>2290</b>	▲ 1358	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	● <b>10946</b>	2188	---
Particles >6µm		ASTM D7647	>2500	● <b>3096</b>	580	---
Particles >14µm		ASTM D7647	>320	<b>99</b>	34	---
Particles >21µm		ASTM D7647	>80	<b>12</b>	9	---
Particles >38µm		ASTM D7647	>20	<b>0</b>	1	---
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● <b>21/19/14</b>	18/16/12	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.17</b>	1.32	---

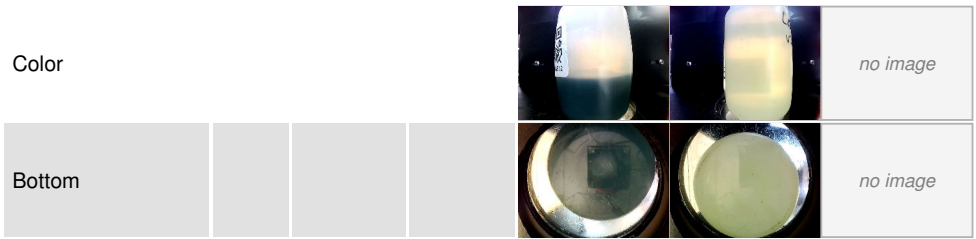
# OIL ANALYSIS REPORT



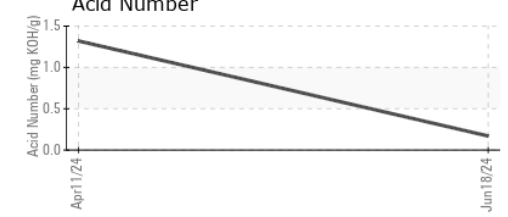
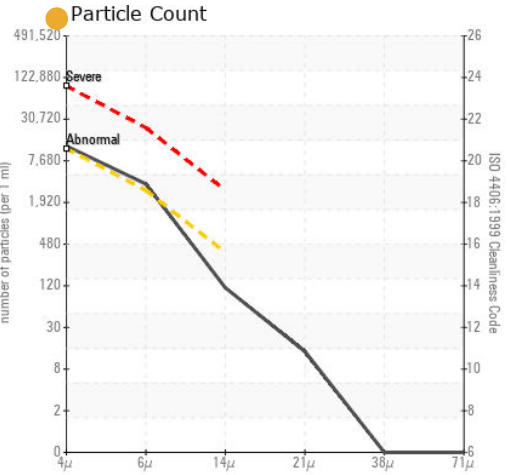
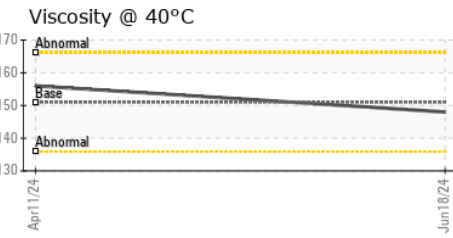
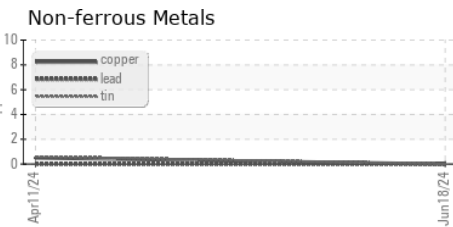
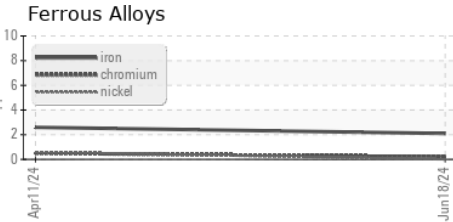
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	148	156
Visc @ 100°C	cSt	ASTM D445	28	26.8	27.6
Viscosity Index (VI)	Scale	ASTM D2270	224	218	216

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO90004512 **Received** : 26 Jun 2024  
**Lab Number** : 06221303 **Tested** : 27 Jun 2024  
**Unique Number** : 11099500 **Diagnosed** : 28 Jun 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)