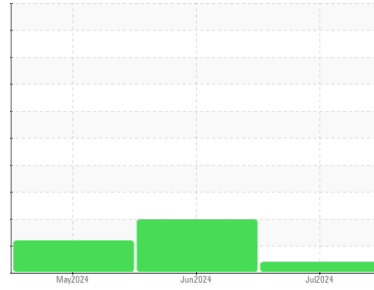


# OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id  
**LEROI VRUOXY0082 - HP3 FALCON RIDGE (S/N LE15924)**  
 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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

**Wear**  
 All component wear rates are normal.

**▲ Contamination**  
 Moderate concentration of visible dirt/debris 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>TO90004479</b>	TO90004538	TO90004236
Sample Date	Client Info			<b>10 Jul 2024</b>	07 Jun 2024	07 May 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>Changed</b>	Changed	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>46</b>	25	7
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

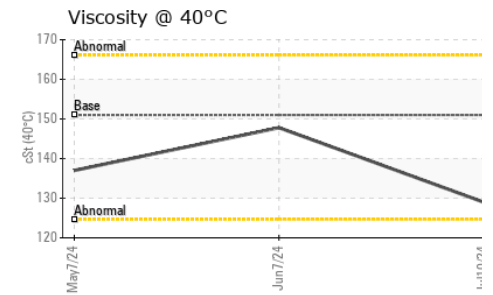
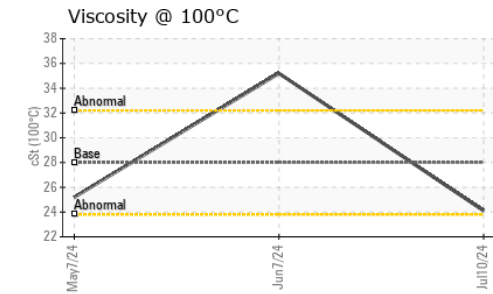
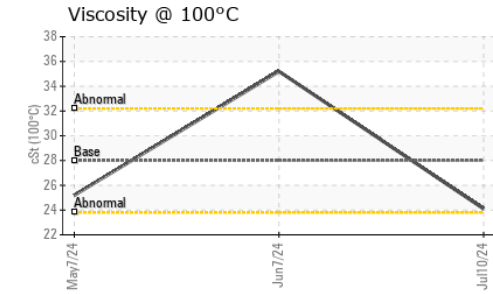
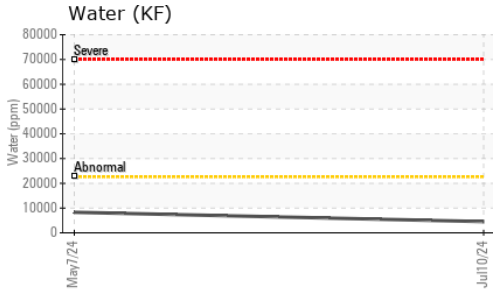
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	0	<b>2</b>	<1	0
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	0	<b>1</b>	10	19
Zinc	ppm	ASTM D5185m	0	<b>0</b>	3	0
Sulfur	ppm	ASTM D5185m	0	<b>623</b>	1408	960

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	2	7
Sodium	ppm	ASTM D5185m		<b>2</b>	3	0
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	4
Water	%	ASTM D6304	>2.26	<b>0.453</b>	---	0.831
ppm Water	ppm	ASTM D6304	>22600	<b>4530</b>	---	8310

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	---	▲ 361471	▲ 21203
Particles >6µm		ASTM D7647	>2500	---	▲ 219390	● 2905
Particles >14µm		ASTM D7647	>320	---	▲ 17870	48
Particles >21µm		ASTM D7647	>80	---	▲ 1571	11
Particles >38µm		ASTM D7647	>20	---	4	5
Particles >71µm		ASTM D7647	>4	---	1	4
Oil Cleanliness		ISO 4406 (c)	>20/18/15	---	▲ 26/25/21	▲ 22/19/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.06</b>	0.456	0.31

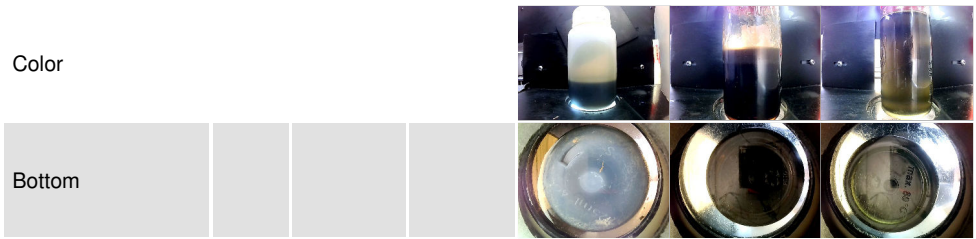
# OIL ANALYSIS REPORT



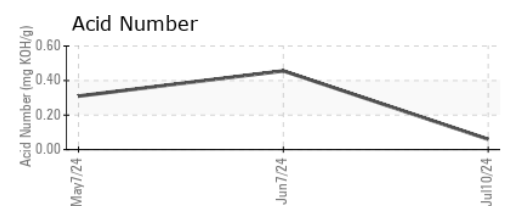
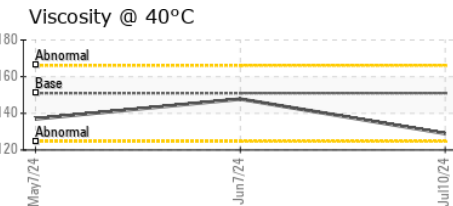
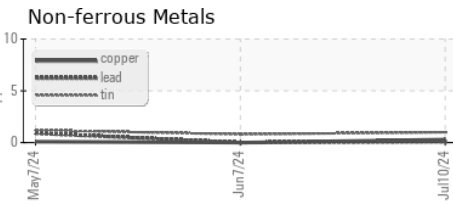
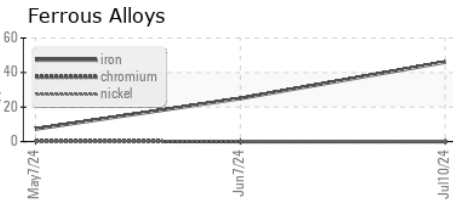
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	NONE
Sand/Dirt	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	<b>129</b>	147.8
Visc @ 100°C	cSt	ASTM D445	28	<b>24.1</b>	35.2
Viscosity Index (VI)	Scale	ASTM D2270	224	<b>220</b>	282

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO90004479  
**Lab Number** : 06238430  
**Unique Number** : 11127264  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )  
**Received** : 16 Jul 2024  
**Tested** : 18 Jul 2024  
**Diagnosed** : 18 Jul 2024 - Don Baldrige

**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)