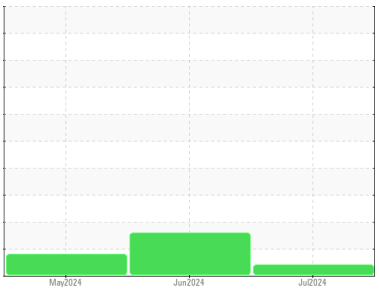
OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Machine Id
NK 112827 - RED TANK 27-78 LP1 (S/N SC389372)
Component
Compressor
Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. 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		**TO90004510**	TO90004527	TO90004217
Sample Date		Client Info		**03 Jul 2024**	27 Jun 2024	09 May 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**<1**	<1	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m	0	**0**	0	0
Calcium	ppm	ASTM D5185m	0	**0**	0	0
Phosphorus	ppm	ASTM D5185m	0	**27**	3	10
Zinc	ppm	ASTM D5185m	0	**0**	0	0
Sulfur	ppm	ASTM D5185m	0	**858**	54	0

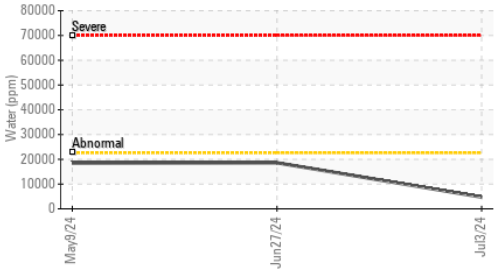
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	3	1
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**3**	3	3
Water	%	ASTM D6304	>2.26	**0.474**	1.86	1.85
ppm Water	ppm	ASTM D6304	>22600	**4740**	18600	18500

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**---**	▲ 43372	● 10569
Particles >6µm		ASTM D7647	>2500	**---**	▲ 11604	2202
Particles >14µm		ASTM D7647	>320	**---**	▲ 473	88
Particles >21µm		ASTM D7647	>80	**---**	65	22
Particles >38µm		ASTM D7647	>20	**---**	1	3
Particles >71µm		ASTM D7647	>4	**---**	0	3
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**---**	▲ 23/21/16	● 21/18/14

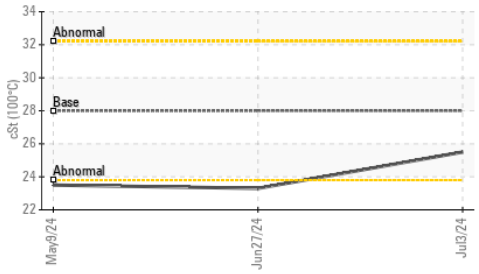
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.23**	0.014	0.084

OIL ANALYSIS REPORT

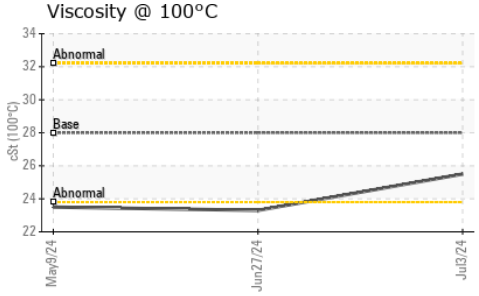
Water (KF)



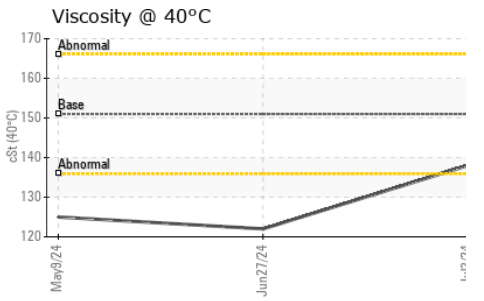
Viscosity @ 100°C



Viscosity @ 100°C

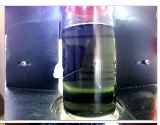


Viscosity @ 40°C



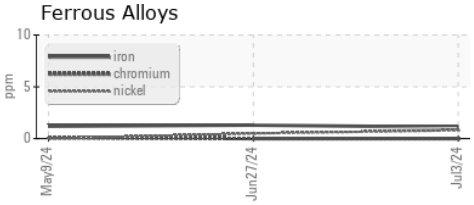
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	**138**	122	125
Visc @ 100°C	cSt	ASTM D445	28	**25.5**	23.3	23.5
Viscosity Index (VI)	Scale	ASTM D2270	224	**220**	222	220

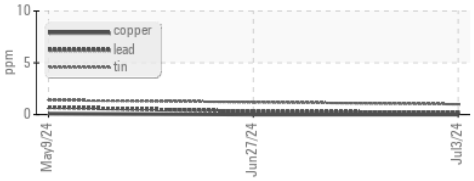
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

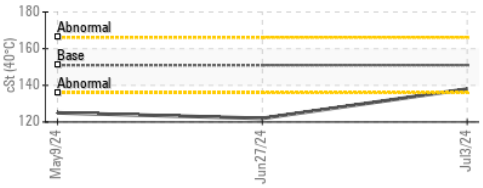
Ferrous Alloys



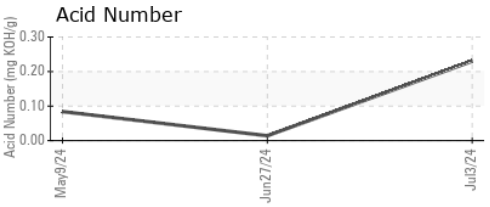
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004510
Lab Number : 06233923
Unique Number : 11122757
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

Received : 11 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Jonathan Hester

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)

CIMARRON ENERGY - CARLSBAD
4425 GRANDI RD, UNIT F
CARLSBAD, NM
UM 88220-8923
Contact: CARLOS LEAL
cleal@cimarron.com
T:
F: