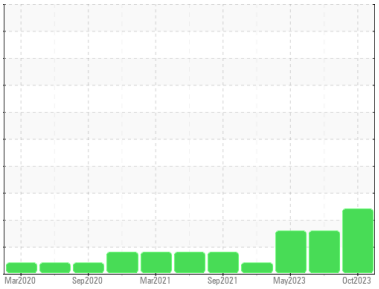
OIL DIAGNOSTICS

PROBLEM SUMMARY

Sample Rating Trend

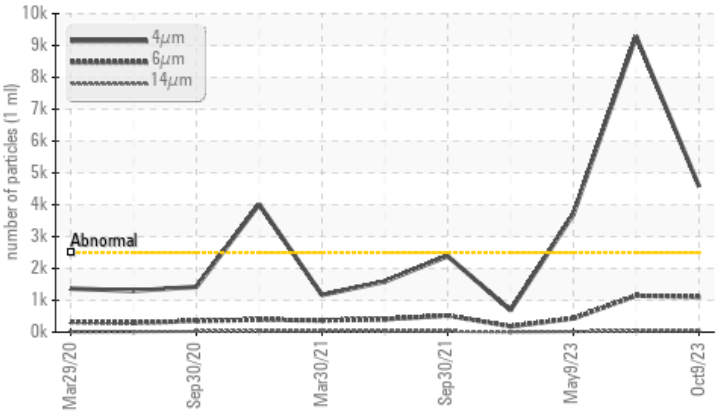


VISCOSITY

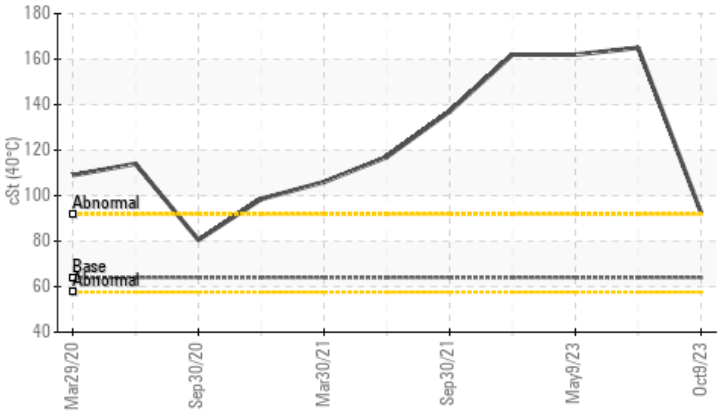
Machine Id
RC-3 (S/N 32186)
Component
Reciprocating Compressor
Fluid
CHEVRON REFRIGERATION OIL WF 68 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Viscosity @ 40°C



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION
Particles >4µm		ASTM D7647	>2500	▲ **4576**	▲ 9283	▲ 3703
Particles >6µm		ASTM D7647	>320	▲ **1101**	▲ 1147	▲ 433
Particles >14µm		ASTM D7647	>40	▲ **49**	34	20
Particles >21µm		ASTM D7647	>10	▲ **12**	9	3
Oil Cleanliness		ISO 4406 (c)	>18/15/12	▲ **19/17/13**	▲ 20/17/12	▲ 19/16/11
Visc @ 40°C	cSt	ASTM D445	64.0	▲ **92.6**	▲ 165	▲ 162

Customer Id: KRAWAL
Sample No.: PCA0106634
Lab Number: 05978326
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

26 Jul 2023 Diag: Don Baldridge

VISCOSITY

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

09 May 2023 Diag: Jonathan Hester

VISCOSITY

Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

19 Jan 2023 Diag: Jonathan Hester

VISCOSITY

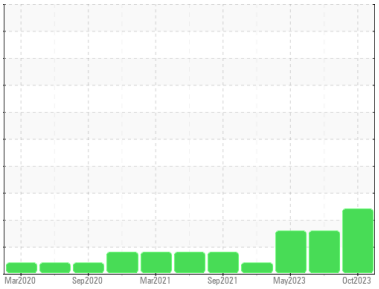
Resample at the next service interval to monitor.All component wear rates are normal. The water content is negligible. The amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
RC-3 (S/N 32186)
Component
Reciprocating Compressor
Fluid
CHEVRON REFRIGERATION OIL WF 68 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil.

Fluid Condition
The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0106634**	PCA0101701	PCA0095712
Sample Date		Client Info		**09 Oct 2023**	26 Jul 2023	09 May 2023
Machine Age	hrs	Client Info		**44499**	43899	43854
Oil Age	hrs	Client Info		**551**	11508	11463
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**1**	0	11
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**3**	0	13
Calcium	ppm	ASTM D5185m		**0**	0	13
Phosphorus	ppm	ASTM D5185m		**0**	0	13
Zinc	ppm	ASTM D5185m		**0**	0	71
Sulfur	ppm	ASTM D5185m		**188**	224	226

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	0	0
Sodium	ppm	ASTM D5185m		**<1**	<1	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.1	**0.003**	0.00	0.006
ppm Water	ppm	ASTM D6304	>1000	**30.8**	0.00	67.0

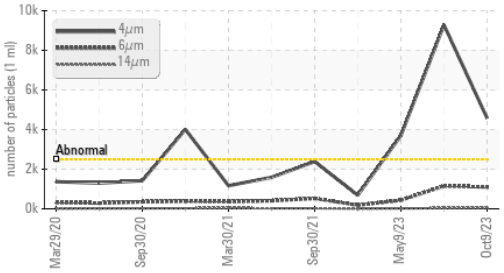
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **4576**	▲ 9283	▲ 3703
Particles >6µm		ASTM D7647	>320	▲ **1101**	▲ 1147	▲ 433
Particles >14µm		ASTM D7647	>40	▲ **49**	34	20
Particles >21µm		ASTM D7647	>10	▲ **12**	9	3
Particles >38µm		ASTM D7647	>3	**1**	1	0
Particles >71µm		ASTM D7647	>3	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>18/15/12	▲ **19/17/13**	▲ 20/17/12	▲ 19/16/11

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

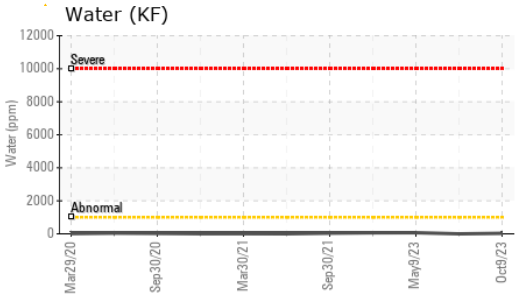
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

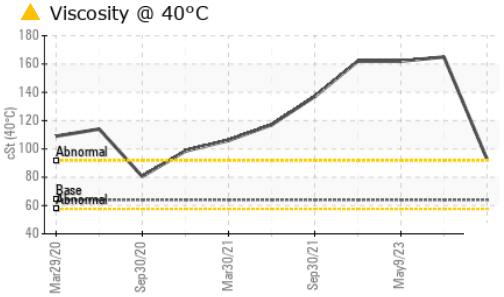
Particle Trend



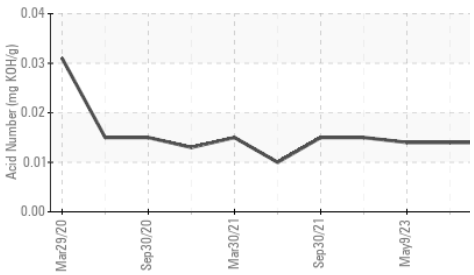
Water (KF)



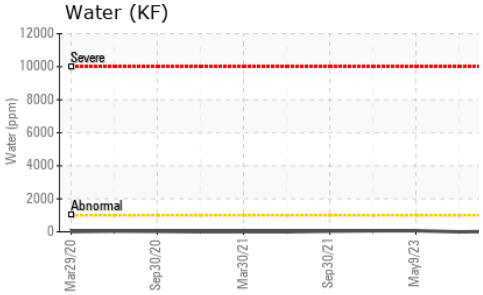
Viscosity @ 40°C



Acid Number

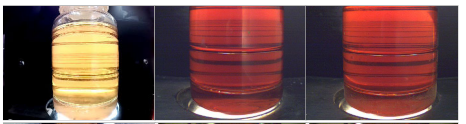
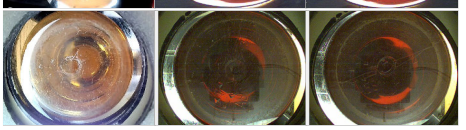


Water (KF)



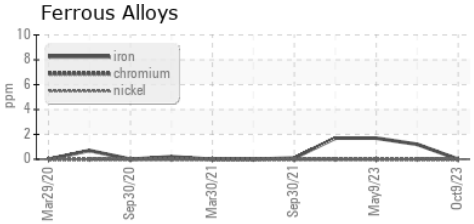
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	64.0	▲ **92.6**	▲ 165	▲ 162

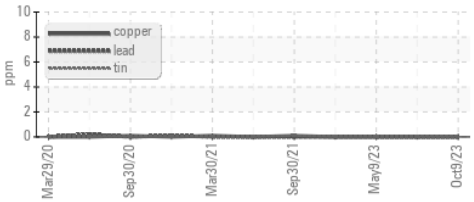
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

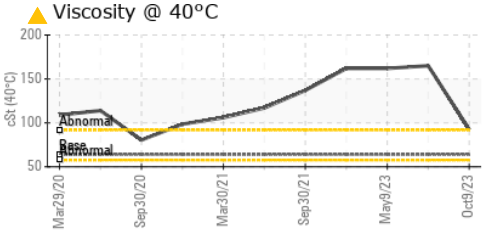
Ferrous Alloys



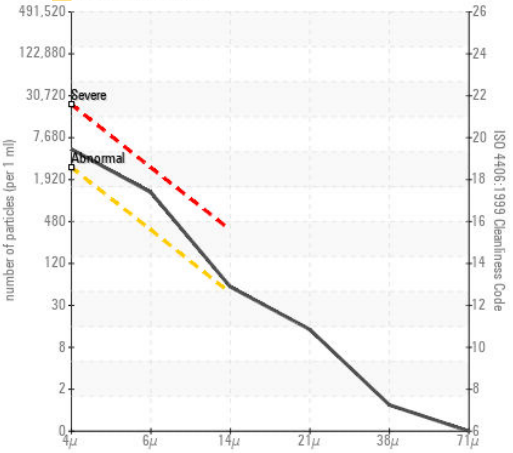
Non-ferrous Metals



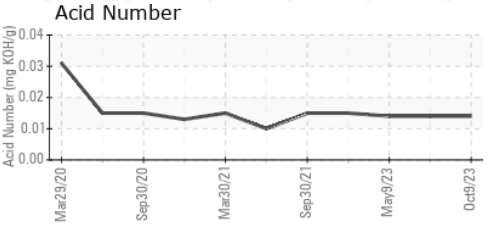
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106634 **Received** : 13 Oct 2023
Lab Number : 05978326 **Diagnosed** : 16 Oct 2023
Unique Number : 10695621 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

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