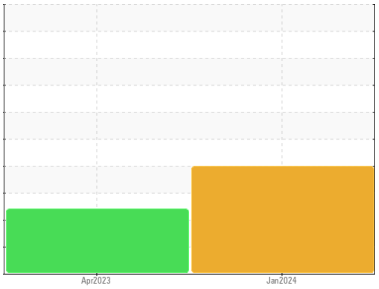
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
[18576]
Machine Id
60-08L
Component
Left Final Drive
Fluid
ConocoPhillips 80w/90 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. (Customer Sample Comment: ConocoPhillips 80w/90 gear oil)

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0836225**	WC0793296	---
Sample Date		Client Info		**05 Jan 2024**	10 Apr 2023	---
Machine Age	hrs	Client Info		**5860**	5758	---
Oil Age	hrs	Client Info		**860**	652	---
Oil Changed		Client Info		**Not Changd**	Not Changd	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	**213**	296	---
Chromium	ppm	ASTM D5185m	>10	**3**	4	---
Nickel	ppm	ASTM D5185m	>10	**<1**	<1	---
Titanium	ppm	ASTM D5185m		**1**	2	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>25	▲ **15**	▲ 25	---
Lead	ppm	ASTM D5185m	>25	**0**	0	---
Copper	ppm	ASTM D5185m	>50	**17**	20	---
Tin	ppm	ASTM D5185m	>10	**<1**	<1	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**8**	5	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**0**	<1	---
Manganese	ppm	ASTM D5185m		**3**	4	---
Magnesium	ppm	ASTM D5185m		**5**	12	---
Calcium	ppm	ASTM D5185m		**36**	43	---
Phosphorus	ppm	ASTM D5185m		**273**	286	---
Zinc	ppm	ASTM D5185m		**16**	12	---
Sulfur	ppm	ASTM D5185m		**17249**	19576	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	▲ **101**	▲ 158	---
Sodium	ppm	ASTM D5185m		**2**	2	---
Potassium	ppm	ASTM D5185m	>20	**6**	7	---
Water	%	ASTM D6304	>0.2	▲ **0.276**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **2760**	---	---

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**	MODER	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

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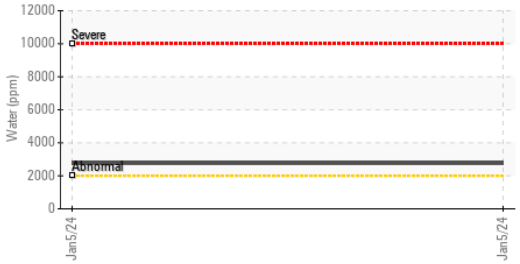
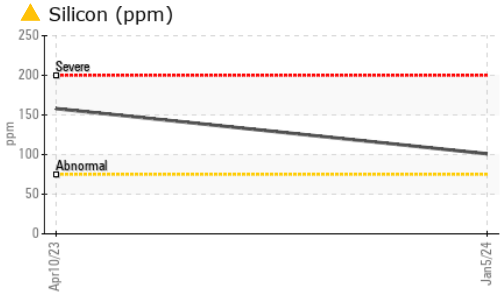
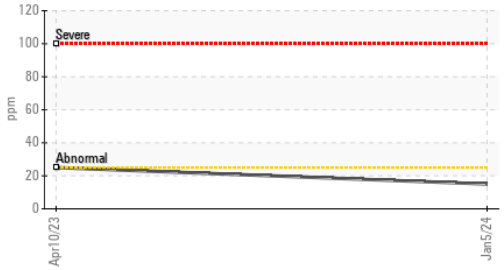
Water (KF)



Silicon (ppm)



Aluminum (ppm)



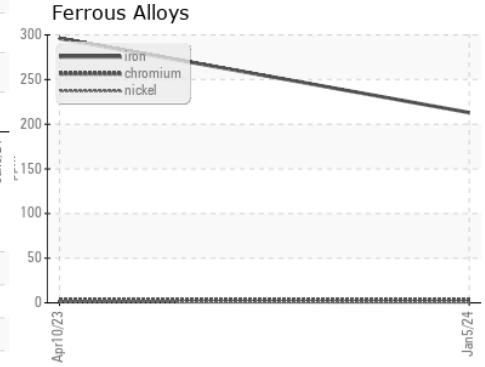
Viscosity @ 40°C

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**137**	135	---

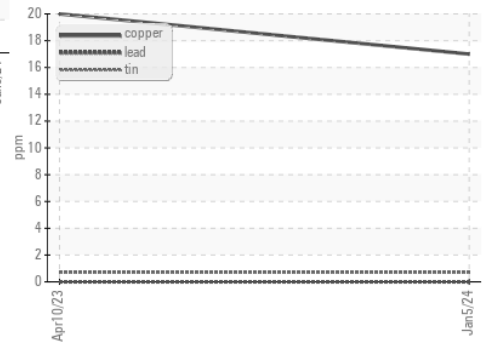
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

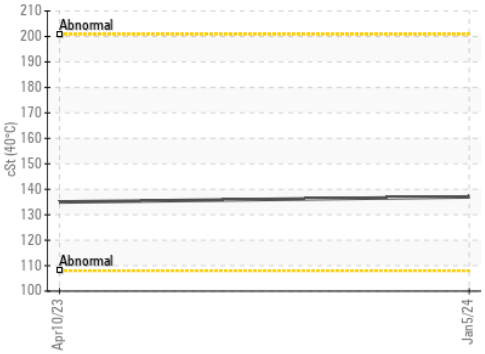
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0836225 **Recieved** : 09 Jan 2024
Lab Number : 06056091 **Diagnosed** : 10 Jan 2024
Unique Number : 10822040 **Diagnostician** : Angela Borella
Test Package : CONST (Additional Tests: KF)

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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Report Id: MANTUL [WUSCAR] 06056091 (Generated: 01/10/2024 22:42:46) Rev: 1

Submitted By: JAMES STEELMON