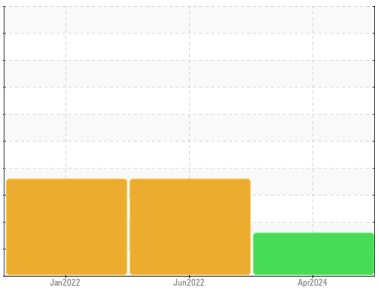
OIL ANALYSIS REPORT

Area
[22462]
Machine Id
30-42
Component
Hydraulic System
Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
The iron level is abnormal. All other component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) 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		**WC0923343**	WC0619255	WC0619484
Sample Date		Client Info		**24 Apr 2024**	20 Jun 2022	17 Jan 2022
Machine Age	hrs	Client Info		**4776**	4097	3845
Oil Age	hrs	Client Info		**679**	3845	500
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	▲ **32**	▲ 65	▲ 69
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**<1**	0	0
Titanium	ppm	ASTM D5185m		**2**	<1	<1
Silver	ppm	ASTM D5185m		**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**4**	8	8
Lead	ppm	ASTM D5185m	>10	**2**	4	4
Copper	ppm	ASTM D5185m	>75	**6**	9	9
Tin	ppm	ASTM D5185m	>10	**1**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

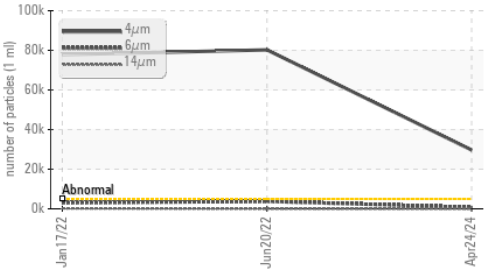
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	85	**63**	100	104
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**15**	10	5
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	350	**377**	488	455
Calcium	ppm	ASTM D5185m	1800	**1021**	1811	2014
Phosphorus	ppm	ASTM D5185m	1000	**753**	1050	1061
Zinc	ppm	ASTM D5185m	1100	**791**	1233	1225
Sulfur	ppm	ASTM D5185m	3500	**3877**	3930	3215

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**18**	▲ 35	▲ 38
Sodium	ppm	ASTM D5185m		**<1**	4	4
Potassium	ppm	ASTM D5185m	>20	**3**	3	2

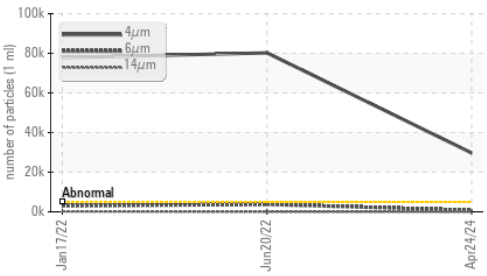
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **29683**	▲ 80239	▲ 77813
Particles >6µm		ASTM D7647	>1300	**777**	▲ 3762	▲ 3067
Particles >14µm		ASTM D7647	>160	**14**	41	● 200
Particles >21µm		ASTM D7647	>40	**3**	11	48
Particles >38µm		ASTM D7647	>10	**0**	1	3
Particles >71µm		ASTM D7647	>3	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/17/11**	▲ 24/19/13	▲ 23/19/15

OIL ANALYSIS REPORT

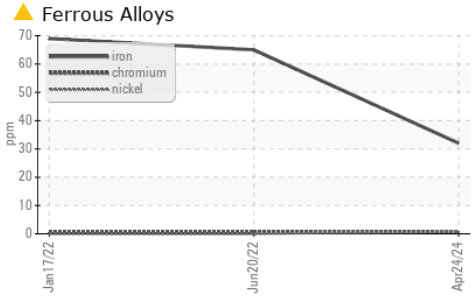
Particle Trend



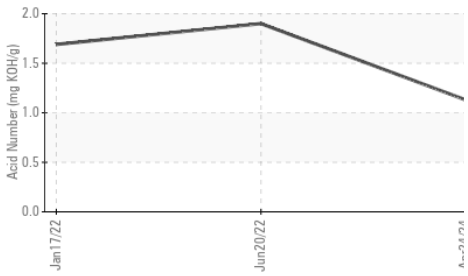
Particle Trend



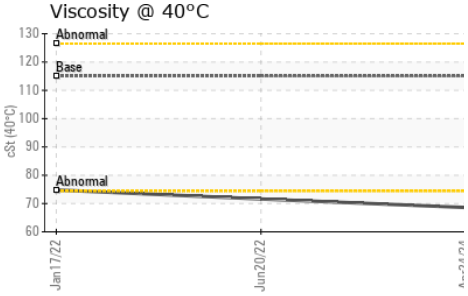
Ferrous Alloys



Acid Number



Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.13**	1.90	1.69

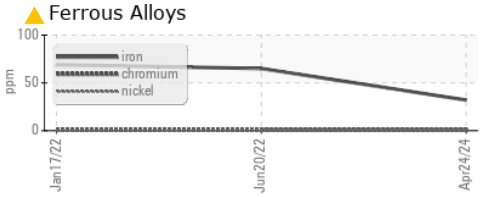
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	115	**68.6**	71.6	74.8

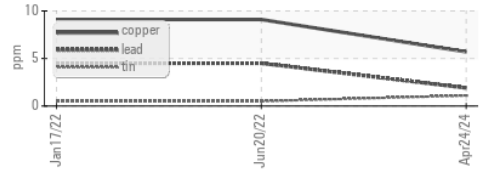
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

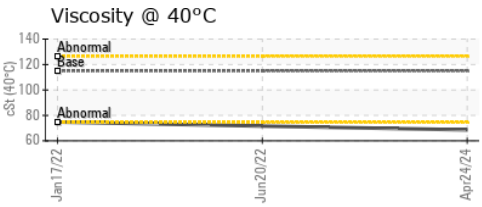
Ferrous Alloys



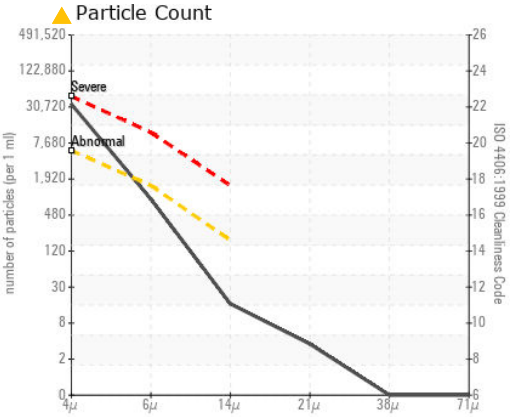
Non-ferrous Metals



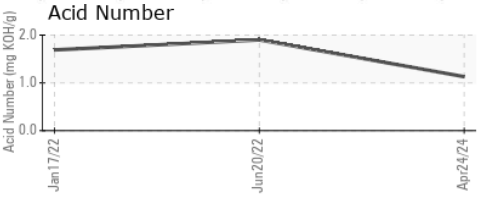
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0923343
Lab Number : 06183310
Unique Number : 11034636
Test Package : CONST

Received : 17 May 2024
Tested : 20 May 2024
Diagnosed : 21 May 2024 - Don Baldridge

Certificate L2367

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] 06183310 (Generated: 05/21/2024 18:22:22) Rev: 1

Submitted By: JAMES STEELMON