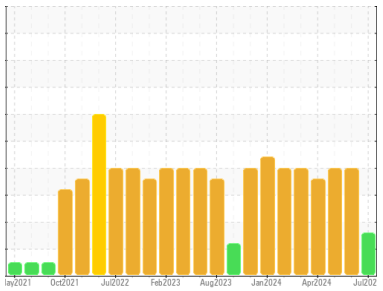
KIMBRO FLUID SOLUTIONS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
COLD MILL/CM-3STD-1S
Machine Id
SOUTH 3-STAND REWIND GEARBOX 1526-007-7540
Component
Gearbox
Fluid
PETRO CANADA ENDURATEX EP 460 (100 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KFS0004850**	KFS0004852	KFS0004441
Sample Date		Client Info		**12 Jul 2024**	13 Jun 2024	16 May 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**6**	25	16
Chromium	ppm	ASTM D5185m	>15	**0**	<1	0
Nickel	ppm	ASTM D5185m	>15	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	2	0
Lead	ppm	ASTM D5185m	>100	**0**	<1	0
Copper	ppm	ASTM D5185m	>200	**0**	<1	0
Tin	ppm	ASTM D5185m	>25	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	55	**0**	32	34
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	<1	0
Manganese	ppm	ASTM D5185m	0	**0**	<1	0
Magnesium	ppm	ASTM D5185m	2	**1**	<1	<1
Calcium	ppm	ASTM D5185m	6	**0**	0	<1
Phosphorus	ppm	ASTM D5185m	240	**183**	226	205
Zinc	ppm	ASTM D5185m	3	**0**	2	<1
Sulfur	ppm	ASTM D5185m	10310	**8776**	8451	8372

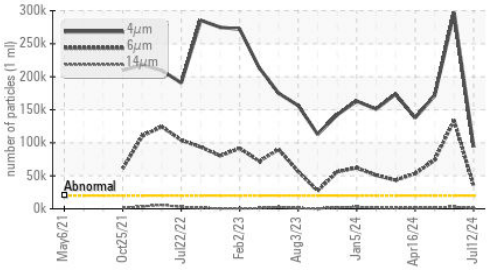
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**5**	9	8
Sodium	ppm	ASTM D5185m		**0**	1	0
Potassium	ppm	ASTM D5185m	>20	**0**	<1	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **93773**	▲ 296856	▲ 171399
Particles >6µm		ASTM D7647	>5000	▲ **34861**	▲ 134015	▲ 73957
Particles >14µm		ASTM D7647	>640	● **813**	▲ 3112	▲ 1929
Particles >21µm		ASTM D7647	>160	**85**	211	205
Particles >38µm		ASTM D7647	>40	**3**	1	2
Particles >71µm		ASTM D7647	>10	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **24/22/17**	▲ 25/24/19	▲ 25/23/18

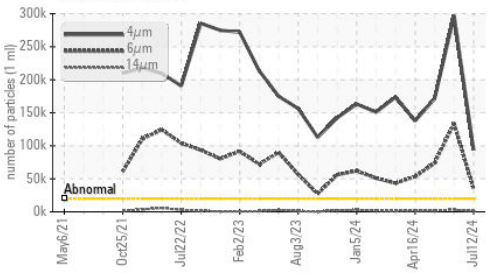
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.5	**0.51**	0.49	0.48

OIL ANALYSIS REPORT

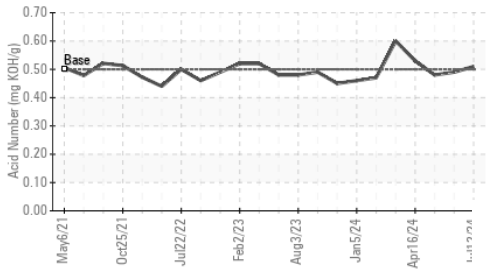
Particle Trend



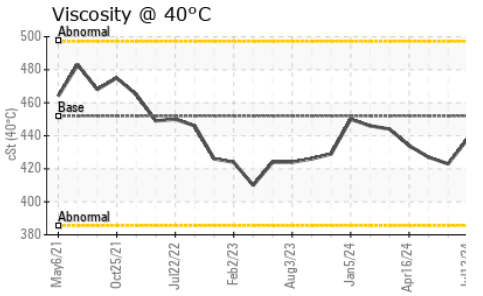
Particle Trend



Acid Number



Viscosity @ 40°C



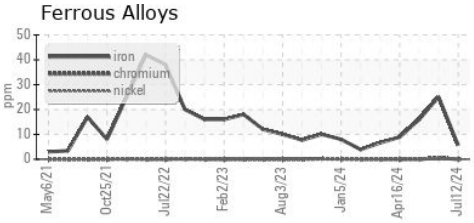
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	452	**438**	423	427

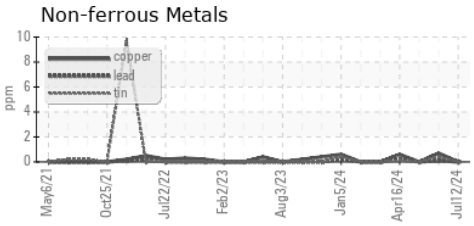
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

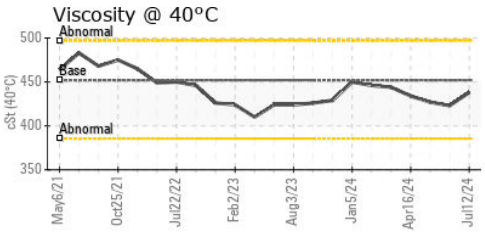
Ferrous Alloys



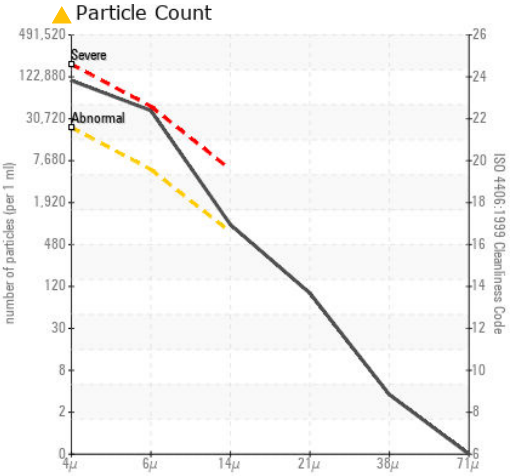
Non-ferrous Metals



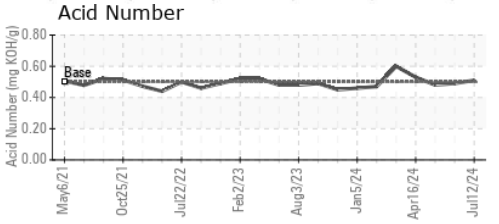
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004850
Lab Number : 06237752
Unique Number : 11126586
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 16 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 17 Jul 2024 - Wes Davis

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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MUSCLE SHOALS, AL
US 35661
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T: (256)386-6956
F:

Report Id: CONMUSAL [WUSCAR] 06237752 (Generated: 07/17/2024 11:47:16) Rev: 1

Submitted By: COLD MILL - Josh Edwards