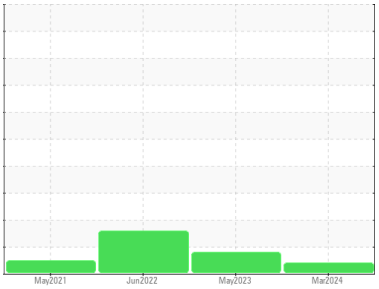
KIMBRO FLUID SOLUTIONS

OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Area
VIAM/BLDG 3/Injection Mold
Machine Id
[VIAM^BLDG 3^Injection Mold] INJ MOLD 05
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. 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		**KFS0005066**	KFS0002454	KFS0001633
Sample Date		Client Info		**18 Mar 2024**	16 May 2023	29 Jun 2022
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**	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	**NEG**	NEG	NEG

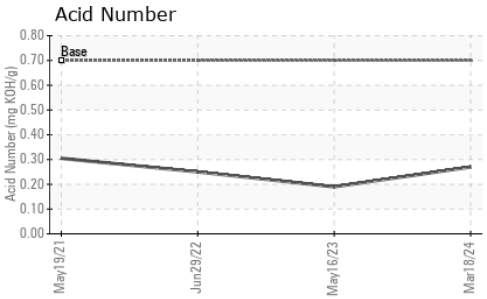
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**0**	<1	0
Chromium	ppm	ASTM D5185m	>20	**<1**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	0
Lead	ppm	ASTM D5185m	>20	**0**	<1	0
Copper	ppm	ASTM D5185m	>20	**1**	<1	<1
Tin	ppm	ASTM D5185m	>20	**0**	<1	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

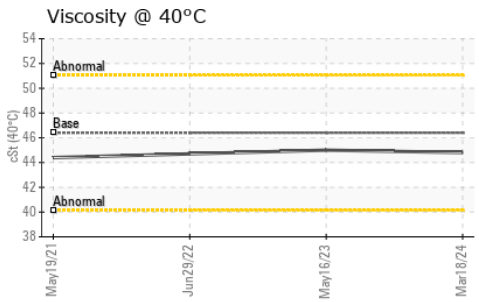
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**<1**	0	0
Manganese	ppm	ASTM D5185m	0	**<1**	<1	0
Magnesium	ppm	ASTM D5185m	0	**0**	2	0
Calcium	ppm	ASTM D5185m	50	**40**	40	40
Phosphorus	ppm	ASTM D5185m	330	**309**	346	325
Zinc	ppm	ASTM D5185m	430	**400**	433	403
Sulfur	ppm	ASTM D5185m	760	**859**	1062	951

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	<1	<1
Sodium	ppm	ASTM D5185m		**<1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	<1	0

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	**---**	1247	▲ 2467
Particles >6µm	ASTM D7647	>320	**---**	● 406	▲ 738
Particles >14µm	ASTM D7647	>80	**---**	52	▲ 82
Particles >21µm	ASTM D7647	>20	**---**	16	18
Particles >38µm	ASTM D7647	>4	**---**	3	3
Particles >71µm	ASTM D7647	>3	**---**	1	1
Oil Cleanliness	ISO 4406 (c)	>17/15/13	**---**	● 17/16/13	▲ 18/17/14

OIL ANALYSIS REPORT

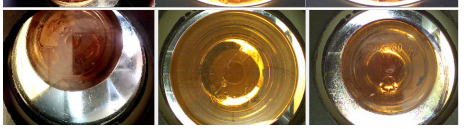




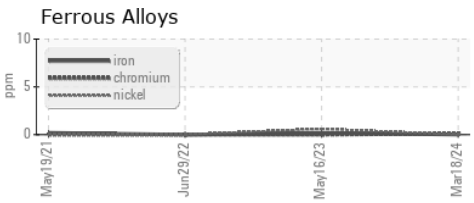
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.70	**0.27**	0.19	0.25

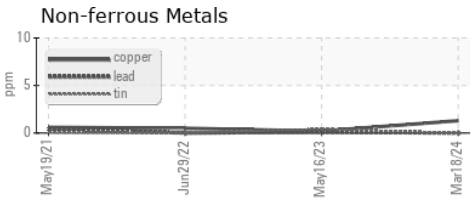
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

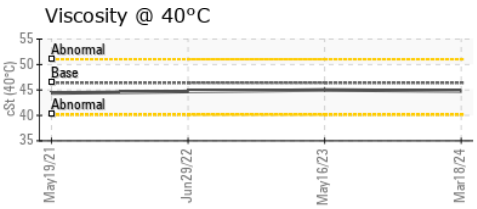
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.4	**44.8**	45.0	44.7

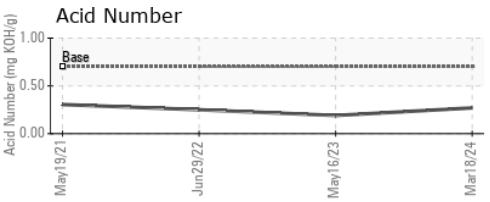
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0005066
Lab Number : 06124833
Unique Number : 10938984
Test Package : IND 2

Received : 21 Mar 2024
Tested : 24 Mar 2024
Diagnosed : 24 Mar 2024 - Don Baldridge

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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