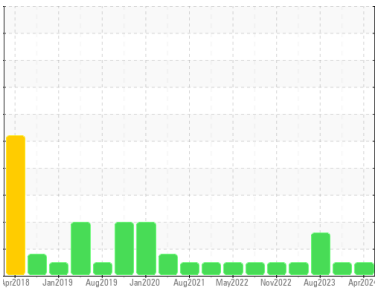
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL
Machine Id
1118
Component
Diesel Engine
Fluid
LEAHY WOLF PREMIUM 15W40 (3 hrs)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0122074**	LW0008341	LW0007700
Sample Date		Client Info		**19 Apr 2024**	11 Dec 2023	23 Aug 2023
Machine Age	hrs	Client Info		**4965**	4719	4427
Oil Age	hrs	Client Info		**4673**	292	4164
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**NORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	**<1.0**	<1.0	<1.0
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	**13**	9	12
Chromium	ppm	ASTM D5185m	>11	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>31	**3**	2	5
Lead	ppm	ASTM D5185m	>26	**0**	<1	<1
Copper	ppm	ASTM D5185m	>26	**2**	1	2
Tin	ppm	ASTM D5185m	>4	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**30**	38	323
Barium	ppm	ASTM D5185m		**0**	12	0
Molybdenum	ppm	ASTM D5185m		**84**	85	256
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**883**	866	886
Calcium	ppm	ASTM D5185m		**1107**	1038	1522
Phosphorus	ppm	ASTM D5185m		**943**	930	948
Zinc	ppm	ASTM D5185m		**1139**	1123	1111
Sulfur	ppm	ASTM D5185m		**3123**	3225	3833

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	**16**	14	▲ 28
Sodium	ppm	ASTM D5185m	>31	**0**	0	2
Potassium	ppm	ASTM D5185m	>20	**0**	3	2

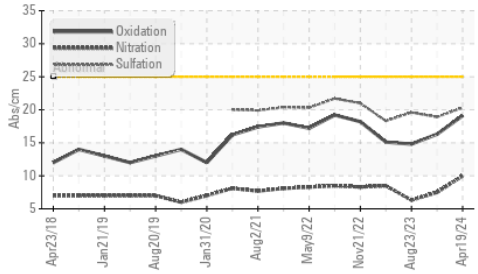
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.4**	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**10.0**	7.5	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.3**	18.9	19.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.1**	16.3	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.4**	7.3	9.5

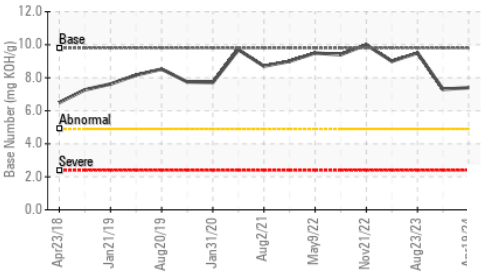
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

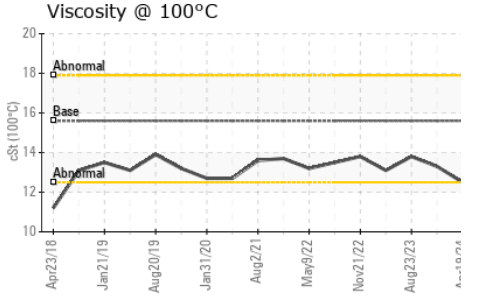
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

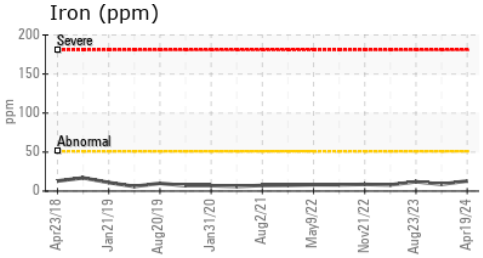


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

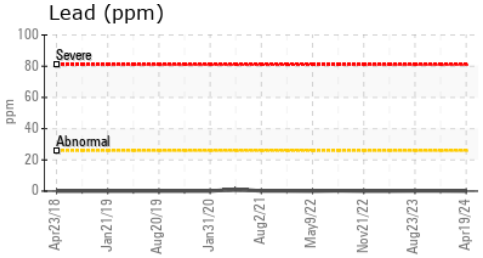
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	**12.5**	13.3	13.8

GRAPHS

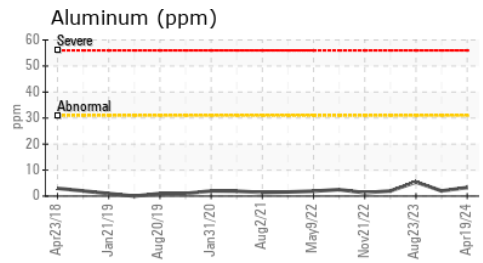
Iron (ppm)



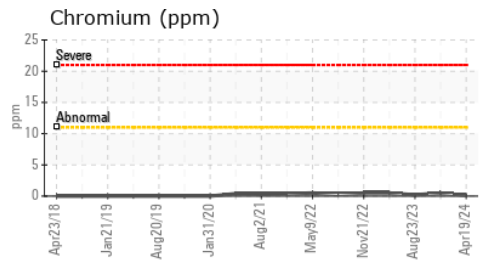
Lead (ppm)



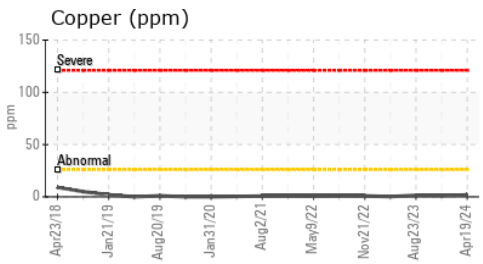
Aluminum (ppm)



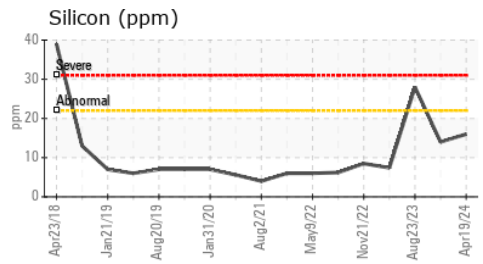
Chromium (ppm)



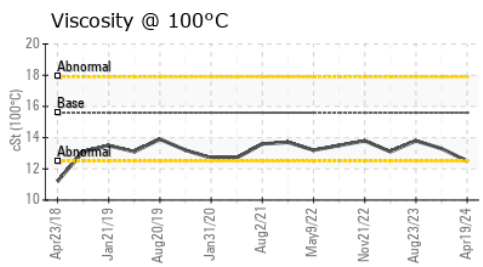
Copper (ppm)



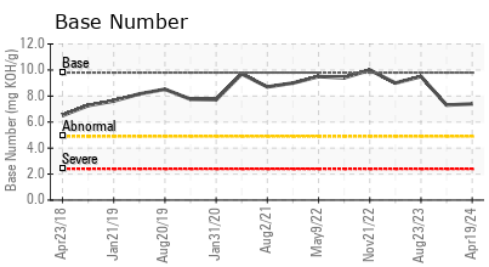
Silicon (ppm)



Viscosity @ 100°C



Base Number



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0122074
Lab Number : 06158925
Unique Number : 10994348
Test Package : MOB 1 (Additional Tests: TBN)

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 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)

K5 CONSTRUCTION CORPORATION
6301 S EAST AVENUE
HODGKINS, IL
US 60525
Contact: Dave Gorski
daveg@k-five.net
T: (630)257-5600
F:

Report Id: K5CWES [WUSCAR] 06158925 (Generated: 04/25/2024 11:17:57) Rev: 1

Submitted By: NOELLE TERRAULT