



LEAHY-WOLF
Lubricating specialists since 1946



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL
Machine Id
1159
Component
Diesel Engine
Fluid
LEAHY WOLF PREMIUM 15W40 (15 hrs)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0005058	LW0004800	LW0003425
Sample Date		Client Info		15 Jun 2022	26 Apr 2022	29 Sep 2021
Machine Age	hrs	Client Info		16220	15951	1549
Oil Age	hrs	Client Info		269	285	275
Filter Age	hrs	Client Info		269	285	275
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	12	24	11
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	<1	2	2
Lead	ppm	ASTM D5185m	>40	2	6	2
Copper	ppm	ASTM D5185m	>330	17	77	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

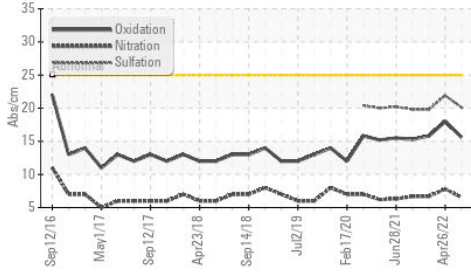
Silicon	ppm	ASTM D5185m	>25	3	5	3
Potassium	ppm	ASTM D5185m	>20	0	1	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.5	7.8	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	21.9	19.8
Silt	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

FLUID CONDITION

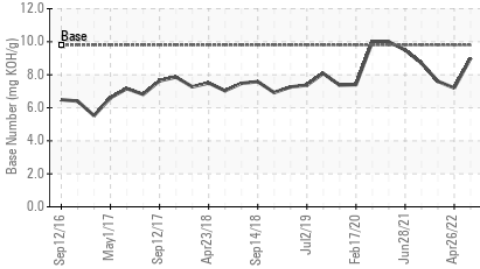
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	1	2
Boron	ppm	ASTM D5185m		8	3	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		58	30	22
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		883	504	347
Calcium	ppm	ASTM D5185m		1153	1833	1902
Phosphorus	ppm	ASTM D5185m		1036	1074	953
Zinc	ppm	ASTM D5185m		1238	1321	1150
Sulfur	ppm	ASTM D5185m		3203	3069	3217
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	18	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.0	7.2	7.6
Visc @ 100°C	cSt	ASTM D445	15.6	14.7	14.4	14.4

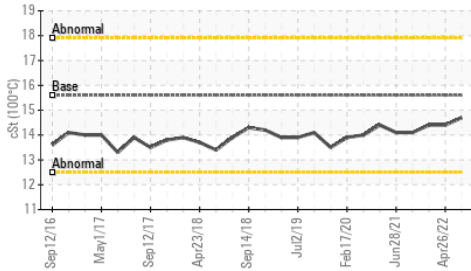
FT-IR (Direct Trend)



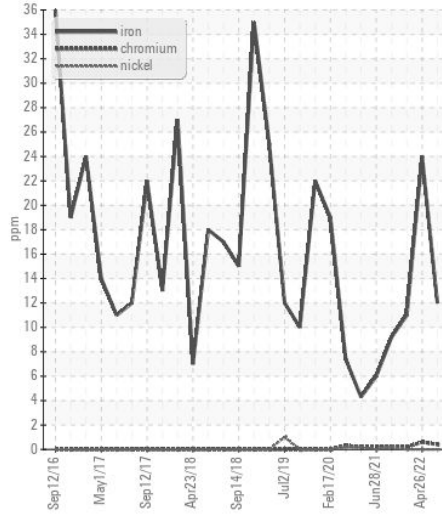
Base Number



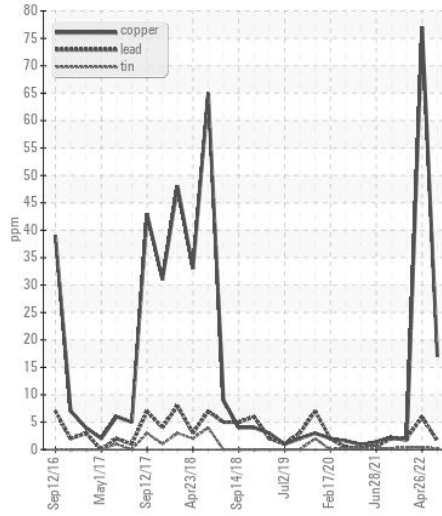
Viscosity @ 100°C



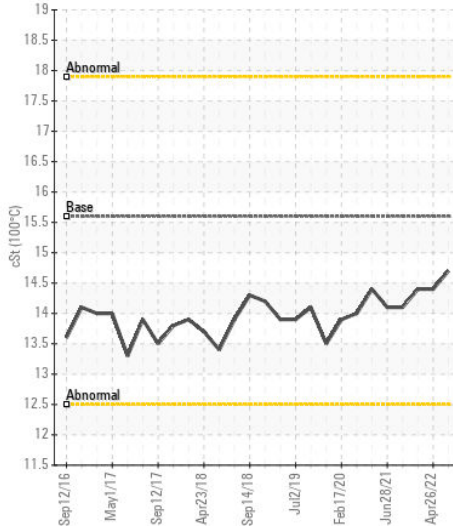
Ferrous Alloys



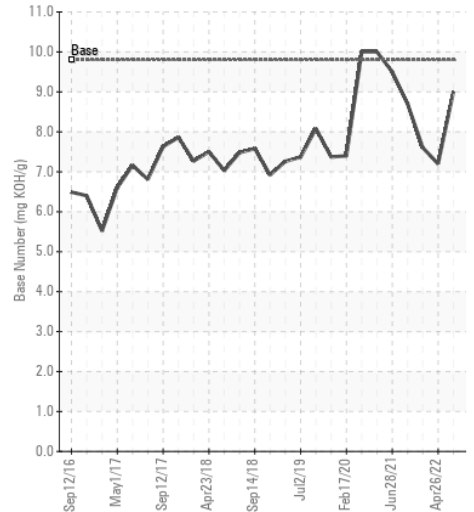
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0005058
Lab Number : 05572042
Unique Number : 10021459
Test Package : FLEET

Received : 20 Jun 2022
Tested : 21 Jun 2022
Diagnosed : 21 Jun 2022 - Wes Davis

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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)