



**LEAHY-WOLF**  
Lubricating specialists since 1946



OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>



Area  
**K5 CONSTRUCTION CORPORATION - HODGKINS IL**  
Machine Id  
**1865**  
Component  
**Diesel Engine**  
Fluid  
**LEAHY WOLF PREMIUM 15W40 (7 GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LW0008543</b>	LW0007159	LW0005017
Sample Date		Client Info		<b>05 Feb 2024</b>	02 Jun 2023	07 Jul 2022
Machine Age	hrs	Client Info		<b>1074</b>	795	503
Oil Age	hrs	Client Info		<b>782</b>	292	249
Filter Age	hrs	Client Info		<b>782</b>	292	249
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>24</b>	15	42
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	<1	8
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	<1	6
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

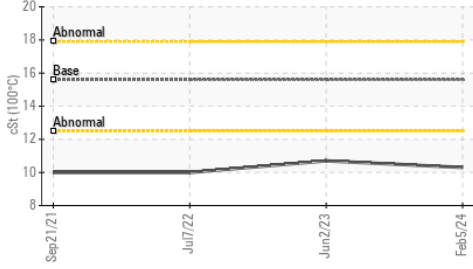
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	9	22
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	1	2
Fuel	%	ASTM D3524	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	6.0	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.3</b>	21.5	24.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

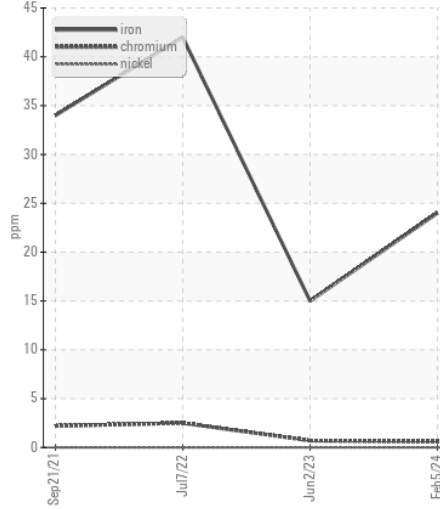
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	3
Boron	ppm	ASTM D5185m		<b>31</b>	46	41
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>44</b>	41	41
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	5
Magnesium	ppm	ASTM D5185m		<b>587</b>	618	530
Calcium	ppm	ASTM D5185m		<b>1365</b>	1446	1598
Phosphorus	ppm	ASTM D5185m		<b>891</b>	941	909
Zinc	ppm	ASTM D5185m		<b>1057</b>	1161	1069
Sulfur	ppm	ASTM D5185m		<b>2854</b>	3558	3489
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.4</b>	19.8	23.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.0</b>	9.3	9.4
Visc @ 100°C	cSt	ASTM D445	15.6	<b>▲ 10.3</b>	▲ 10.7	▲ 10.0

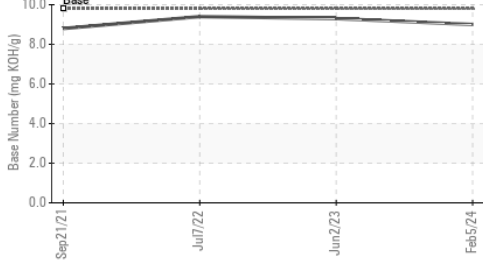
▲ Viscosity @ 100°C



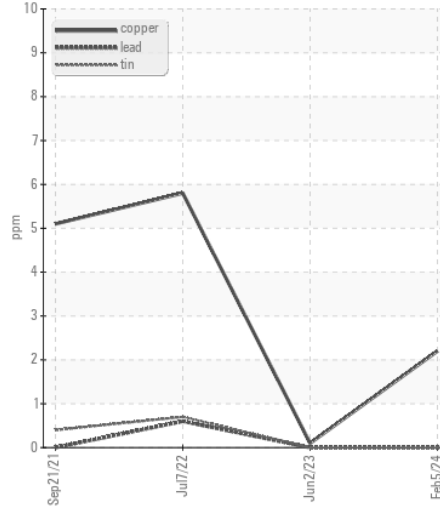
Ferrous Alloys



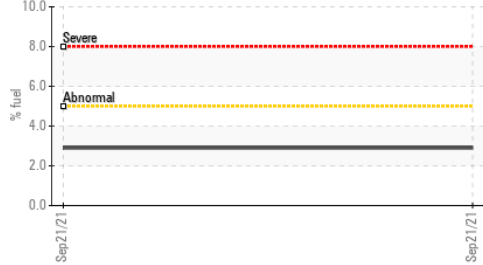
Base Number



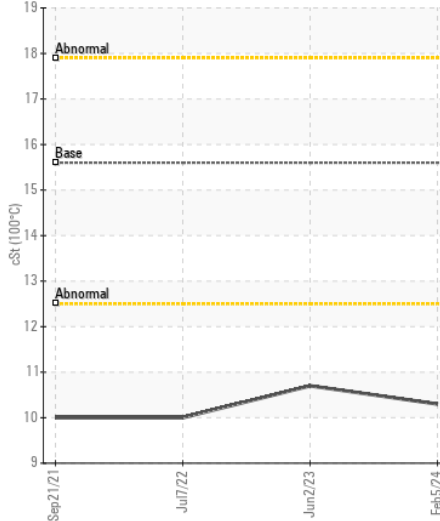
Non-ferrous Metals



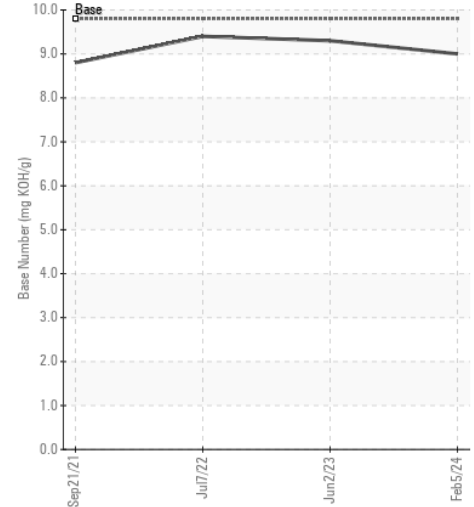
Fuel Dilution



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LW0008543  
**Lab Number** : 06087040  
**Unique Number** : 10874485  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

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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)