



OIL ANALYSIS REPORT

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



Area  
**K5 CONSTRUCTION CORPORATION - HODGKINS IL**  
Machine Id  
**1209**  
Component  
**Diesel Engine**  
Fluid  
**LEAHY WOLF PREMIUM 15W40 (7 hrs)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LW0009205</b>	LW0006003	LW0003055
Sample Date		Client Info		<b>21 May 2024</b>	19 Oct 2022	03 Sep 2021
Machine Age	hrs	Client Info		<b>11324</b>	11324	3107
Oil Age	hrs	Client Info		<b>11324</b>	240	254
Filter Age	hrs	Client Info		<b>0</b>	240	254
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>23</b>	27	41
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
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>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	4
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	4
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	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.

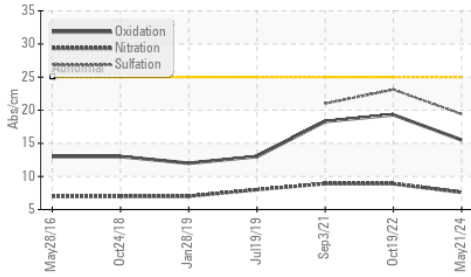
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	11
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	8.9	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	23.1	21
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**

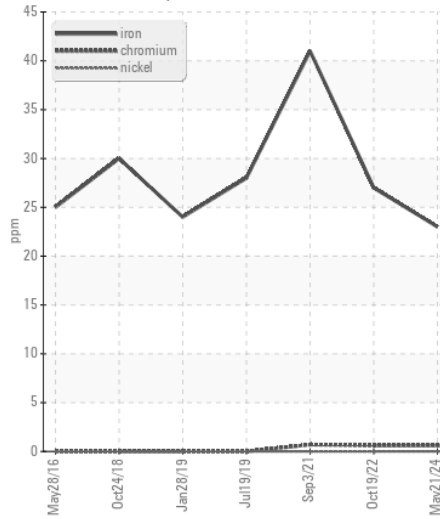
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	1
Boron	ppm	ASTM D5185m		<b>6</b>	41	94
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>62</b>	65	57
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1061</b>	897	967
Calcium	ppm	ASTM D5185m		<b>1371</b>	1195	1178
Phosphorus	ppm	ASTM D5185m		<b>1198</b>	982	1081
Zinc	ppm	ASTM D5185m		<b>1473</b>	1210	1255
Sulfur	ppm	ASTM D5185m		<b>4056</b>	3523	2784
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	19.3	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	10.0	8.6
Visc @ 100°C	cSt	ASTM D445	15.6	<b>13.5</b>	13.5	13.6

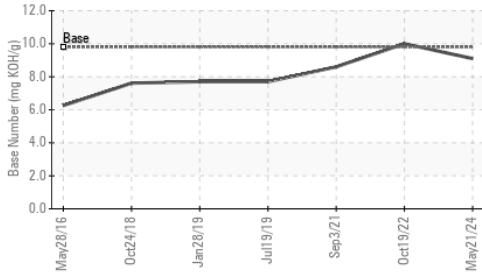
**FT-IR (Direct Trend)**



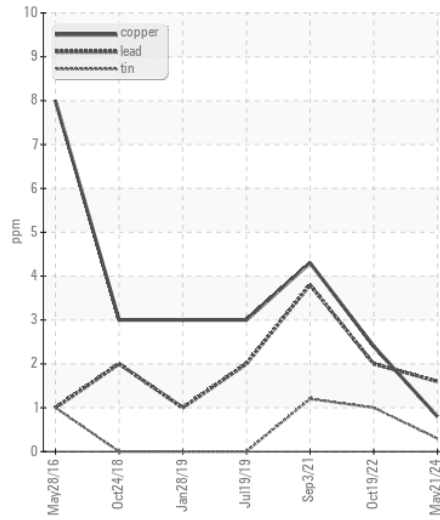
**Ferrous Alloys**



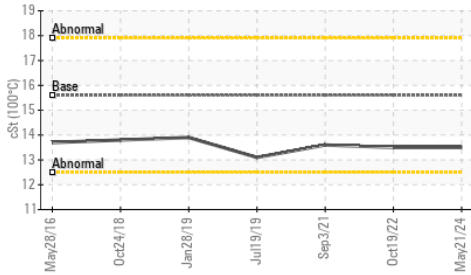
**Base Number**



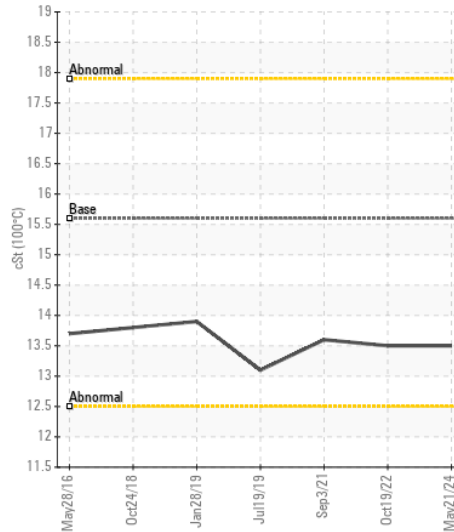
**Non-ferrous Metals**



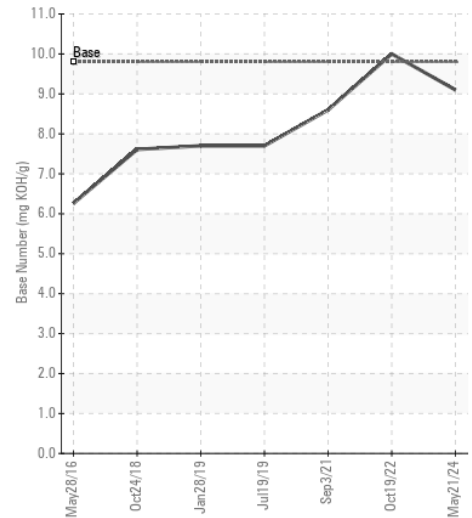
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LW0009205  
**Lab Number** : 06193194  
**Unique Number** : 11049946  
**Test Package** : FLEET

**Received** : 28 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - 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)