LEAHY·WOLF
Lubricating specialists since 1946

FLEET

OIL ANALYSIS REPORT

WEAR	**NORMAL**
CONTAMINATION	**NORMAL**
FLUID CONDITION	**NORMAL**

Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL
Machine Id
4118
Component
Diesel Engine
Fluid
LEAHY WOLF PREMIUM 15W40 (38 hrs)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**LW0009468**	LW0008503	LW0008037
Sample Date		Client Info		**27 Jun 2024**	10 Jan 2024	26 Sep 2023
Machine Age	hrs	Client Info		**9052**	8453	7937
Oil Age	hrs	Client Info		**599**	516	541
Filter Age	hrs	Client Info		**599**	516	541
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>100	**10**	4	9
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>4	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>20	**6**	3	7
Lead	ppm	ASTM D5185m	>40	**<1**	<1	0
Copper	ppm	ASTM D5185m	>330	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>15	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	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.

| Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>25	**5**	5	4
Potassium	ppm	ASTM D5185m	>20	**8**	5	12
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	**0.3**	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**7.4**	7.1	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.1**	18.4	19.4
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.

| Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m		**0**	1	<1
Boron	ppm	ASTM D5185m		**<1**	<1	0
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**63**	54	62
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**936**	957	922
Calcium	ppm	ASTM D5185m		**1041**	1076	1083
Phosphorus	ppm	ASTM D5185m		**955**	1046	1043
Zinc	ppm	ASTM D5185m		**1214**	1258	1287
Sulfur	ppm	ASTM D5185m		**2616**	3128	3480
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.1**	14.6	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**8.5**	8.6	8.6
Visc @ 100°C	cSt	ASTM D445	15.6	**13.6**	13.6	13.6

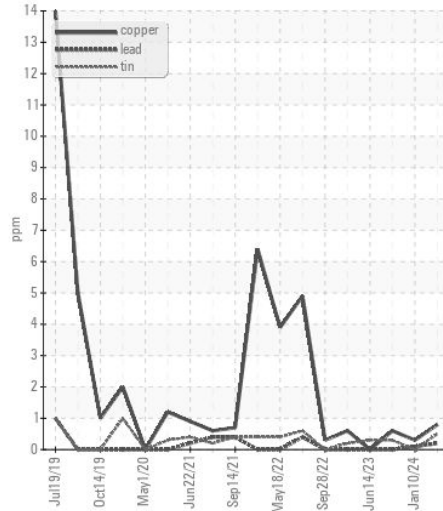## FT-IR (Direct Trend)
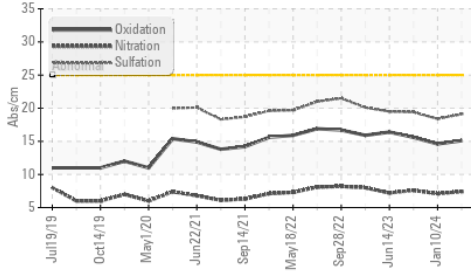
Base Number
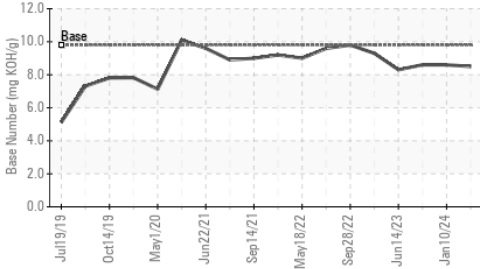
Viscosity @ 100°C
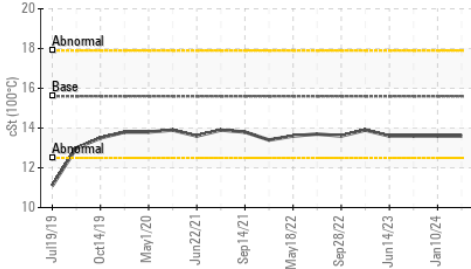
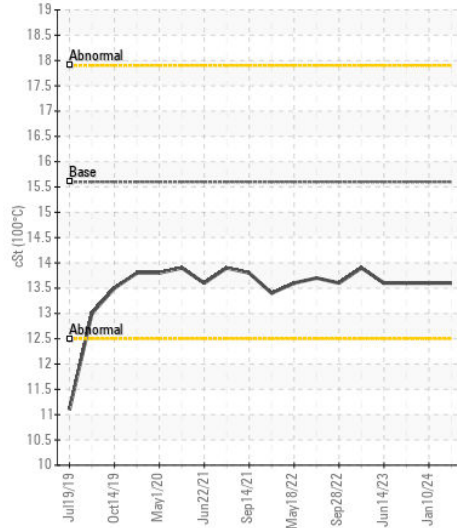## Ferrous Alloys
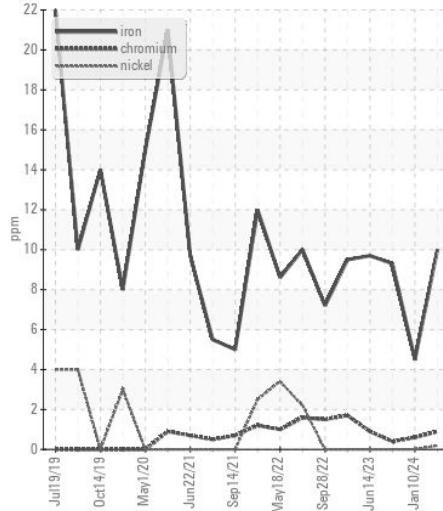
Non-ferrous Metals

Viscosity @ 100°C

Base Number
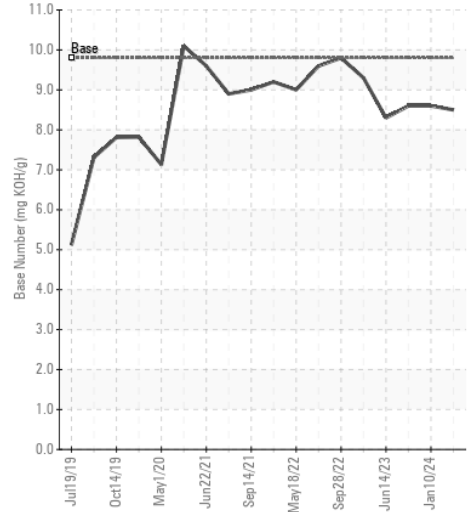
Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		**K5 CONSTRUCTION CORPORATION**
Sample No.	: LW0009468	**Received** : 02 Jul 2024	6301 S EAST AVENUE
Lab Number	: 06225789	**Tested** : 03 Jul 2024	HODGKINS, IL
Unique Number	: 11109282	**Diagnosed** : 03 Jul 2024 - Wes Davis	US 60525
Test Package	: FLEET		Contact: Dave Gorski

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)

daveg@k-five.net
T: (630)257-5600
F:

Certificate L2367