



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FSP137689 (S/N 3HAMMMMN9KL056815)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936295	WC0828045	WC0640706
Sample Date		Client Info		16 May 2024	09 Aug 2023	03 Dec 2021
Machine Age	hrs	Client Info		171519	152423	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	32	19	20
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	7	4	3
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	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.

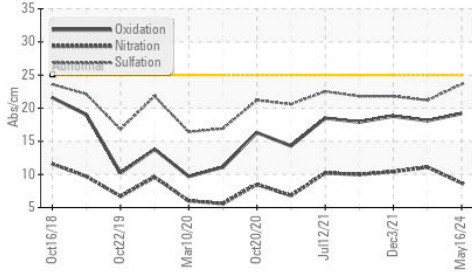
Silicon	ppm	ASTM D5185m	>25	10	6	5
Potassium	ppm	ASTM D5185m	>20	4	4	5
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.7	11.1	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	21.2	21.8
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

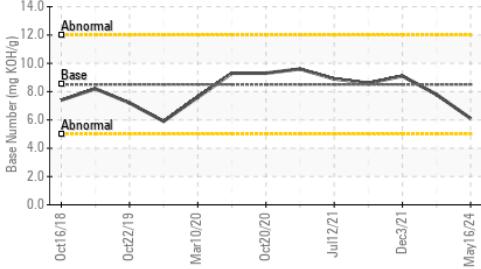
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	3	2	2
Boron	ppm	ASTM D5185m	250	216	9	1
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	152	71	61
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	681	988	1026
Calcium	ppm	ASTM D5185m	3000	2078	1253	1192
Phosphorus	ppm	ASTM D5185m	1150	1311	1109	1105
Zinc	ppm	ASTM D5185m	1350	1745	1359	1287
Sulfur	ppm	ASTM D5185m	4250	4511	3926	2803
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	18.1	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.1	7.8	9.1
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	12.8	13.1

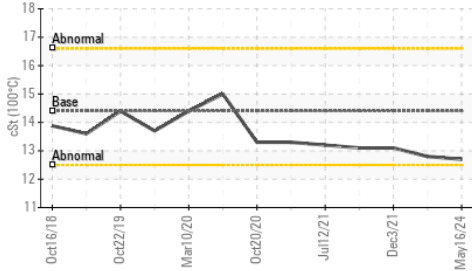
FT-IR (Direct Trend)



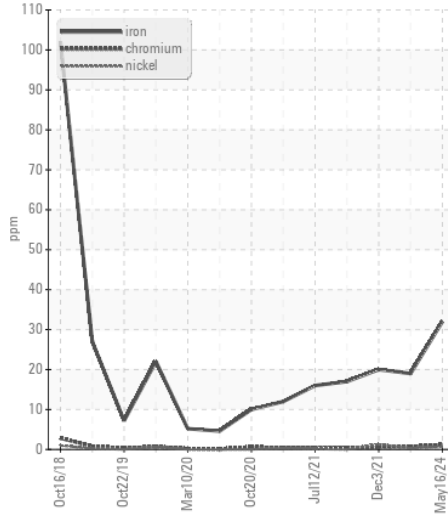
Base Number



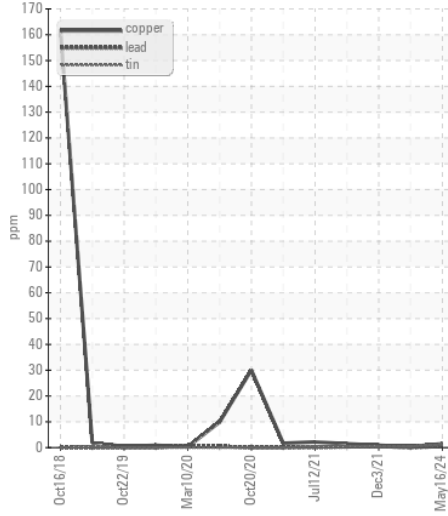
Viscosity @ 100°C



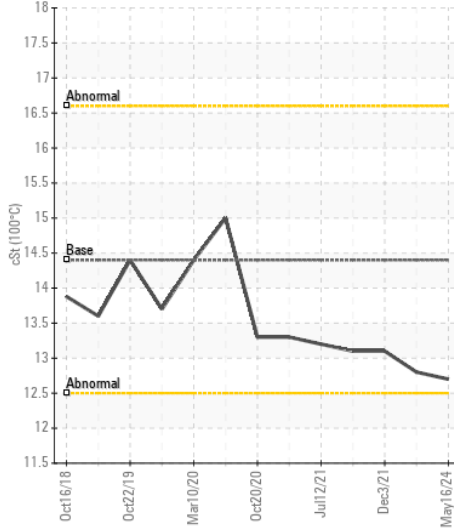
Ferrous Alloys



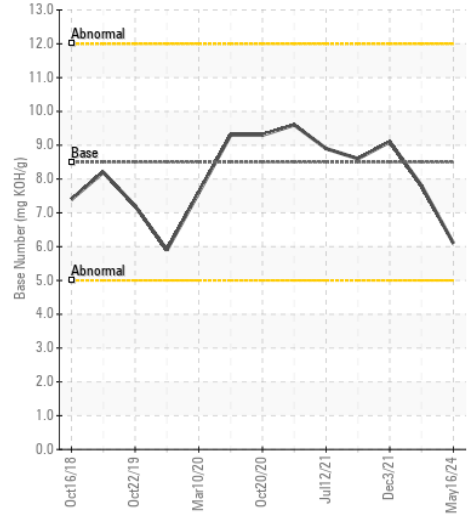
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0936295
Lab Number : 06190028
Unique Number : 11046780
Test Package : FLEET

Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 29 May 2024 - Don Baldrige

FRESHPOINT
 8801 EXCHANGE DRIVE
 ORLANDO, FL
 US 32809
 Contact: CRAIG EVANS
 evans_craig@sbcglobal.net

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)

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F: