CHALMERS Lubrication Service
(704) 660-LUBE(5823)

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
100
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (10 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

Sodium and/or potassium levels remain high. Test for glycol is negative.

FLUID CONDITION

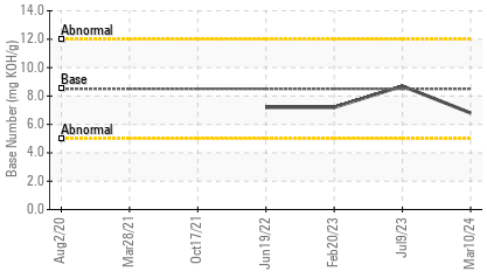
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CL0005215	CL0004465	CL0004039
Sample Date		Client Info		10 Mar 2024	09 Jul 2023	20 Feb 2023
Machine Age	mls	Client Info		511771	503565	497955
Oil Age	mls	Client Info		511771	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>110	17	21	13
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	6	7	6
Lead	ppm	ASTM D5185m	>45	<1	<1	0
Copper	ppm	ASTM D5185m	>85	2	2	3
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>30	6	8	5
Potassium	ppm	ASTM D5185m	>20	▲ 75	▲ 147	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	▲ 0.10	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.5	10.0	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	19.0	18.7
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
Sodium	ppm	ASTM D5185m	>158	▲ 106	● 238	5
Boron	ppm	ASTM D5185m	250	52	49	50
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	98	109	86
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	18	25	43
Calcium	ppm	ASTM D5185m	3000	2221	2180	2212
Phosphorus	ppm	ASTM D5185m	1150	1153	1025	1055
Zinc	ppm	ASTM D5185m	1350	1241	1187	1249
Sulfur	ppm	ASTM D5185m	4250	4475	4067	3585
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	14.1	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.8	8.7	7.2
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	13.5	13.2

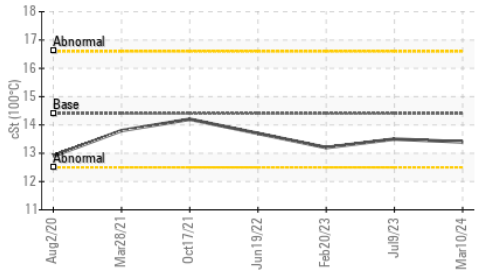
Report Id: RACDEN [WUSCAR] 06121459 (Generated: 03/21/2024 15:21:36) Rev: 1

Submitted By: JEFF CHALMERS

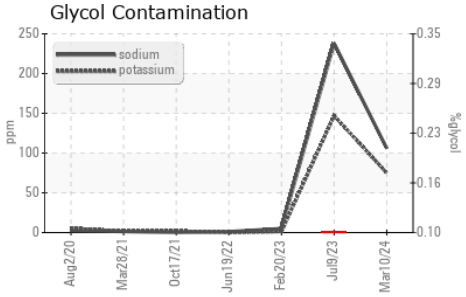
Base Number



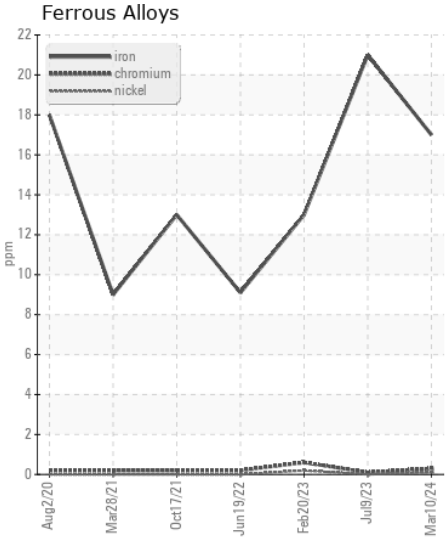
Viscosity @ 100°C



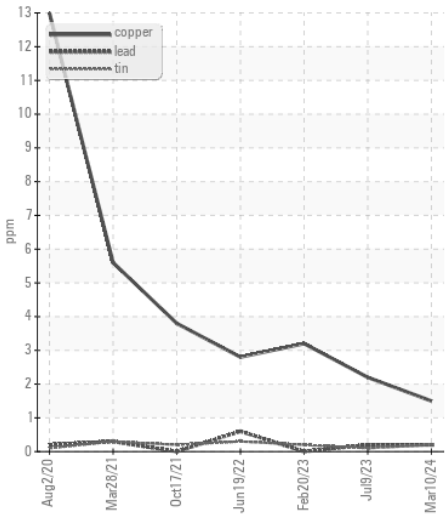
Glycol Contamination



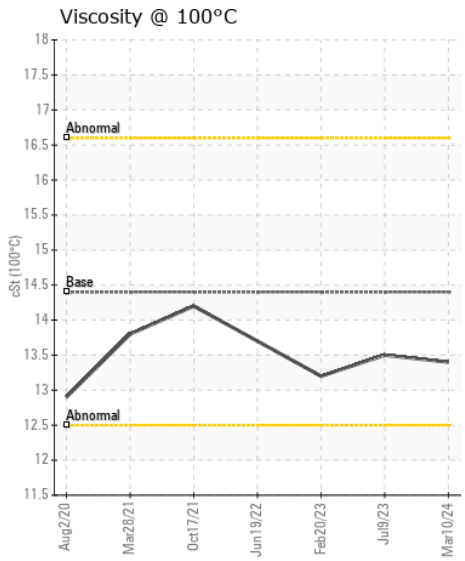
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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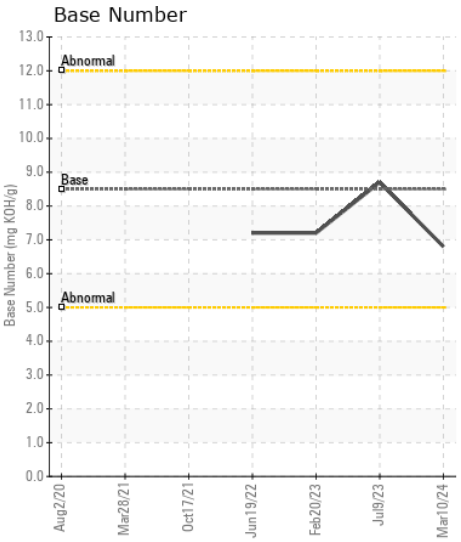

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : CL0005215
Lab Number : 06121459
Unique Number : 10930292
Test Package : CONST (Additional Tests: TBN)

Received : 18 Mar 2024
Tested : 21 Mar 2024
Diagnosed : 21 Mar 2024 - Jonathan Hester

RACE CITY STEEL
4052 N HWY 16
DENVER, NC
US 28037
Contact: SERVICE MANAGER

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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