OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
349616-152263
Component
Diesel Engine
Fluid
CHEVRON DELO 400 XLE 15W40 (--- QTS)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

CONTAMINATION

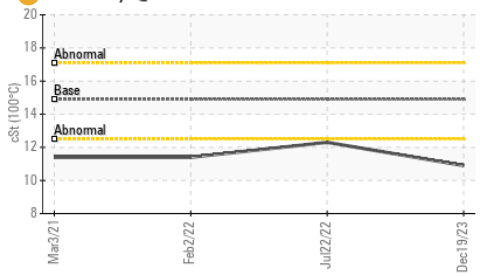
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

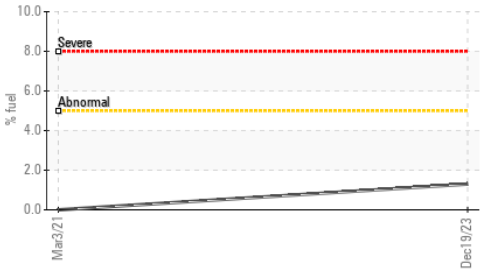
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RY0123430	RY0123157	RY0123101
Sample Date		Client Info		19 Dec 2023	22 Jul 2022	02 Feb 2022
Machine Age	mls	Client Info		5000	0	172812
Oil Age	mls	Client Info		0	12000	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				ATTENTION	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	15	26	23
Chromium	ppm	ASTM D5185m	>20	<1	2	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	4	8	5
Lead	ppm	ASTM D5185m	>40	0	1	0
Copper	ppm	ASTM D5185m	>330	1	2	1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	6	0
Potassium	ppm	ASTM D5185m	>20	2	23	0
Fuel	%	ASTM D3524	>5	1.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.9	0.8
Nitration	Abs/cm	*ASTM D7624	>20	10.8	14.2	13.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	28.1	25.3
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		3	8	2
Boron	ppm	ASTM D5185m		62	32	12
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		30	75	30
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m		597	623	684
Calcium	ppm	ASTM D5185m		1175	1482	1485
Phosphorus	ppm	ASTM D5185m	760	698	645	735
Zinc	ppm	ASTM D5185m	830	816	829	869
Sulfur	ppm	ASTM D5185m	2770	3069	2963	2609
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	23.9	20.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	6.2	6.9	6.8
Visc @ 100°C	cSt	ASTM D445	14.9	10.9	12.3	11.4

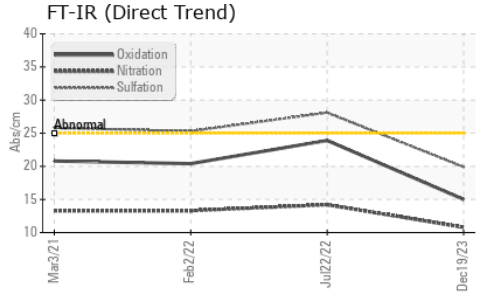
Viscosity @ 100°C



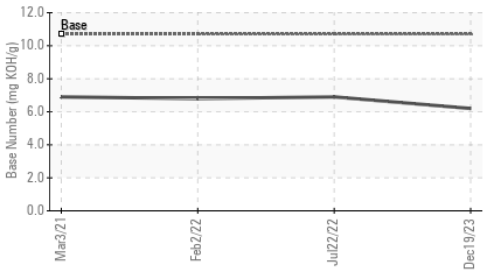
Fuel Dilution



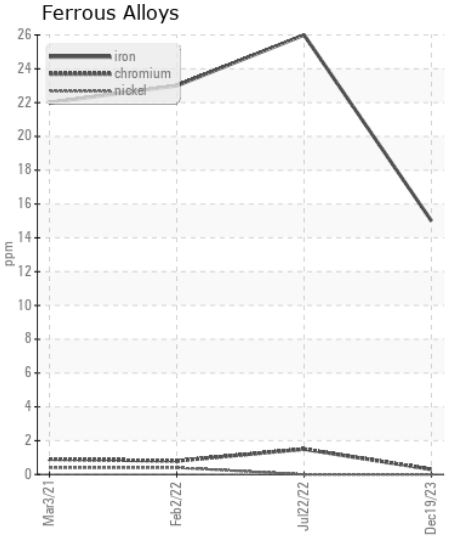
FT-IR (Direct Trend)



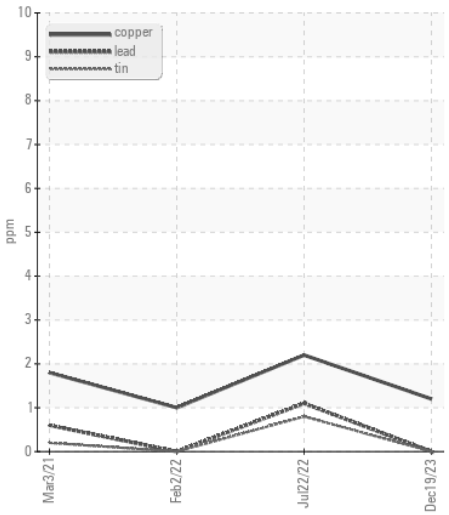
Base Number



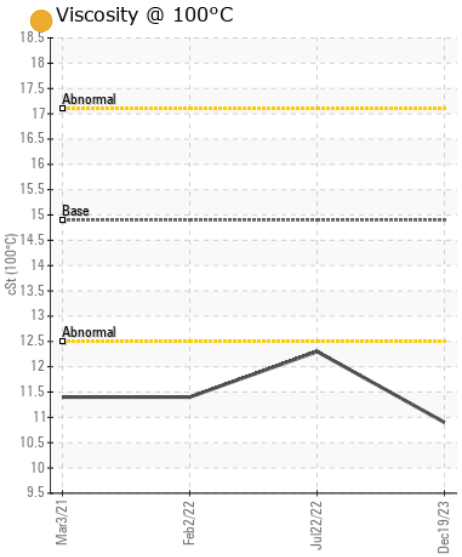
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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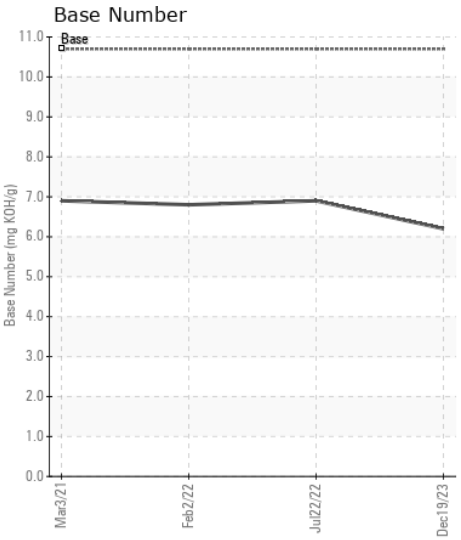

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: RY0123430	**Received**	: 22 May 2024
Lab Number	: 06187310	**Tested**	: 28 May 2024
Unique Number	: 11044062	**Diagnosed**	: 28 May 2024 - Jonathan Hester
Test Package	: FLEET (Additional Tests: FuelDilution, PercentFuel)		

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)

Ryder Transportation Services
240 NE 71 ST
MIAMI, FL
US 33138
Contact: ANTHONY INGRAM
anthonyingram@creamoland.com
T:
F: