



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
349609-152257
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 XLE 10W30 (--- QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RY0123395	RY0123211	RY0123244
Sample Date		Client Info		08 Dec 2023	21 Apr 2023	18 Oct 2022
Machine Age	mls	Client Info		12000	0	0
Oil Age	mls	Client Info		0	11000	10000
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	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	65	25	22
Chromium	ppm	ASTM D5185m	>20	3	<1	<1
Nickel	ppm	ASTM D5185m	>4	1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	0	0
Aluminum	ppm	ASTM D5185m	>20	9	5	5
Lead	ppm	ASTM D5185m	>40	1	0	<1
Copper	ppm	ASTM D5185m	>330	6	3	3
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

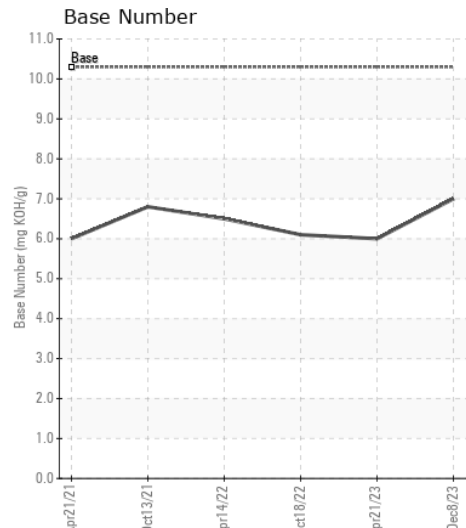
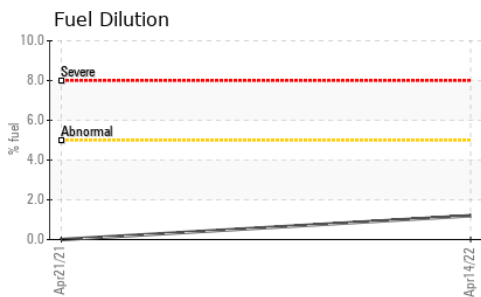
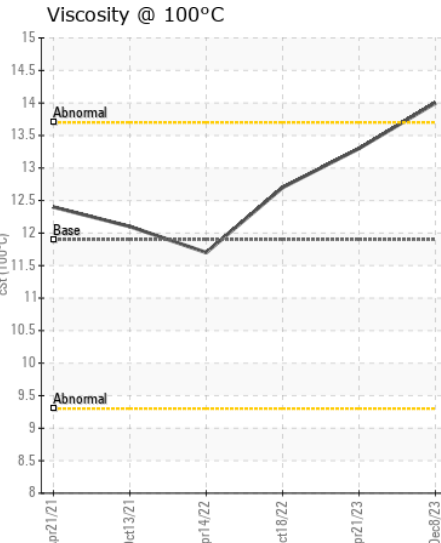
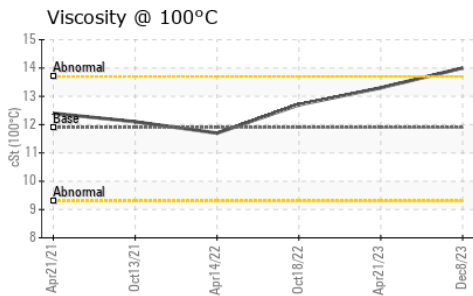
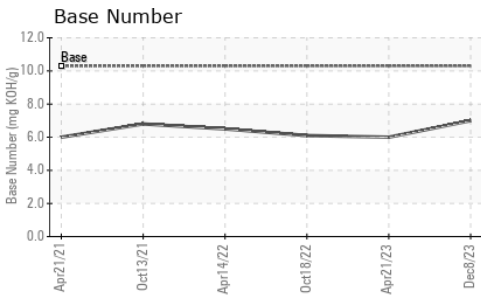
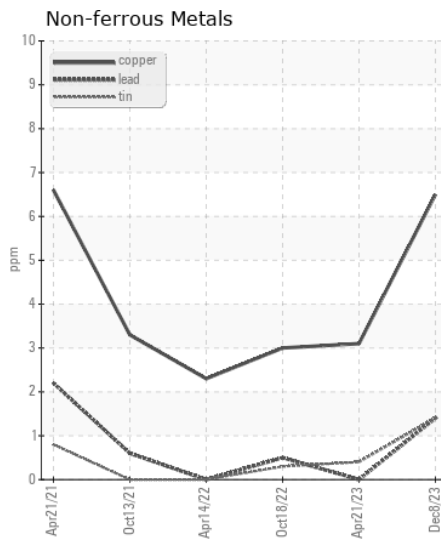
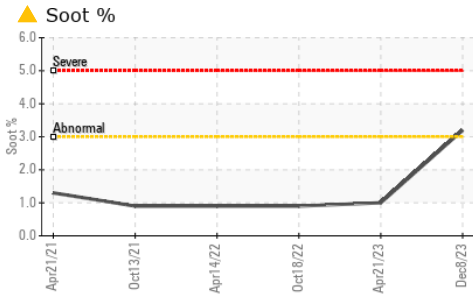
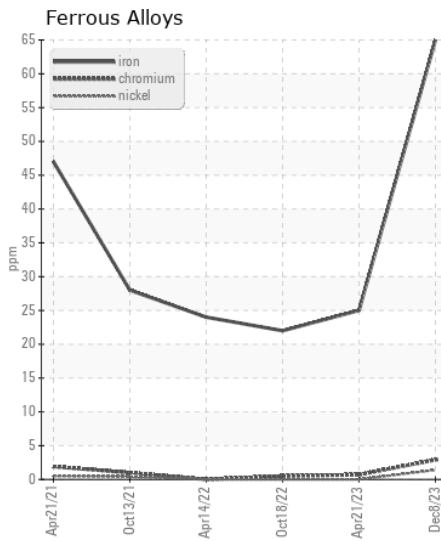
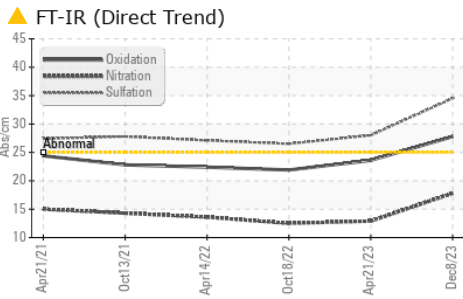
Light concentration of carbon/soot present in the oil.

Silicon	ppm	ASTM D5185m	>25	13	7	6
Potassium	ppm	ASTM D5185m	>20	37	2	3
Fuel	%	ASTM D3524	>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	3.2	1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	17.8	12.9	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.5	28.0	26.5
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		16	3	3
Boron	ppm	ASTM D5185m		30	55	40
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		53	82	76
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		580	465	558
Calcium	ppm	ASTM D5185m	2900	1405	1389	1475
Phosphorus	ppm	ASTM D5185m	1100	891	855	738
Zinc	ppm	ASTM D5185m	1200	1048	1124	976
Sulfur	ppm	ASTM D5185m	4000	3449	2876	3164
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.8	23.6	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.3	7.0	6.0	6.1
Visc @ 100°C	cSt	ASTM D445	11.9	14.0	13.3	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RY0123395
Lab Number : 06187320
Unique Number : 11044072
Test Package : FLEET (Additional Tests: FuelDilution)

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

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)