TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
CHEVROLET 4375
Component
Diesel Engine
Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. 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

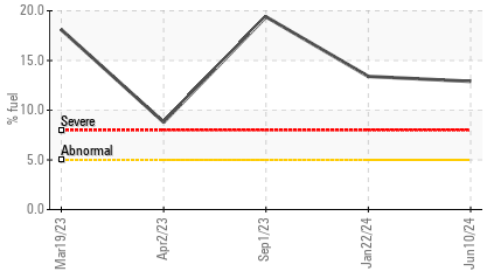
There is a high amount of fuel present in the oil.

FLUID CONDITION

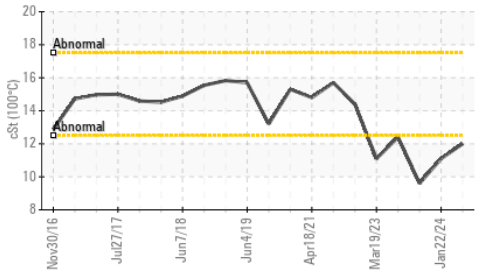
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06212597	TR06073159	TR05948270
Sample Date		Client Info		10 Jun 2024	22 Jan 2024	01 Sep 2023
Machine Age	mls	Client Info		212953	209651	207277
Oil Age	mls	Client Info		5000	5000	5000
Filter Age	mls	Client Info		5000	5000	5000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>100	9	8	13
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	0
Lead	ppm	ASTM D5185m	>40	<1	2	6
Copper	ppm	ASTM D5185m	>330	1	0	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	6	8
Potassium	ppm	ASTM D5185m	>20	3	2	3
Fuel	%	ASTM D3524	>5	▲ 12.9	▲ 13.4	▲ 19.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.9	1.6
Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.3	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	20.4	22.1
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		4	2	3
Boron	ppm	ASTM D5185m		4	5	32
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		113	103	55
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		25	82	512
Calcium	ppm	ASTM D5185m		3647	3141	1554
Phosphorus	ppm	ASTM D5185m		824	714	614
Zinc	ppm	ASTM D5185m		893	809	771
Sulfur	ppm	ASTM D5185m		4375	3251	2762
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	14.1	19.0
Base Number (BN)	mg KOH/g	ASTM D2896		8.72	11.41	7.48
Visc @ 100°C	cSt	ASTM D445		▲ 12.0	▲ 11.1	▲ 9.6

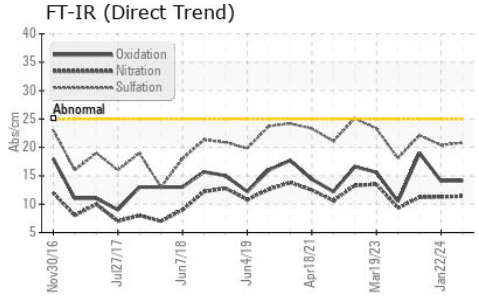
Fuel Dilution



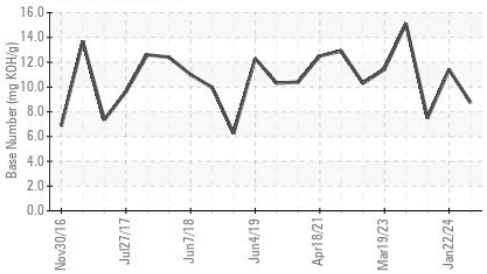
Viscosity @ 100°C



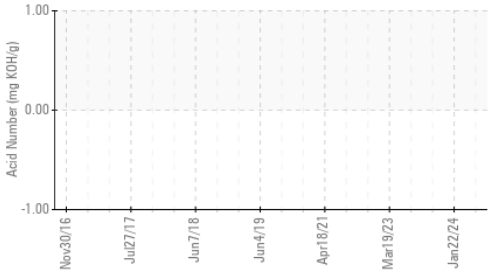
FT-IR (Direct Trend)



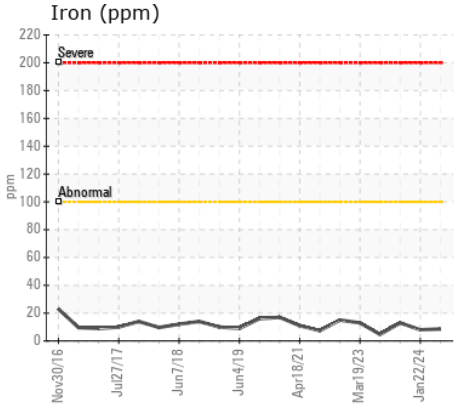
Base Number



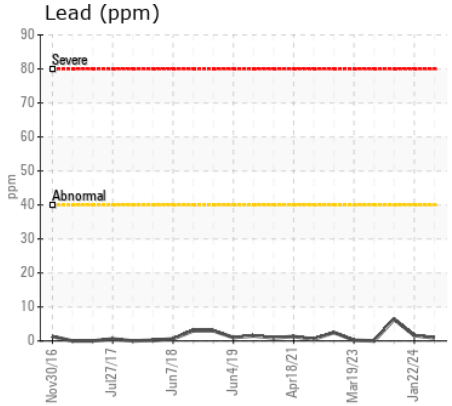
Acid Number



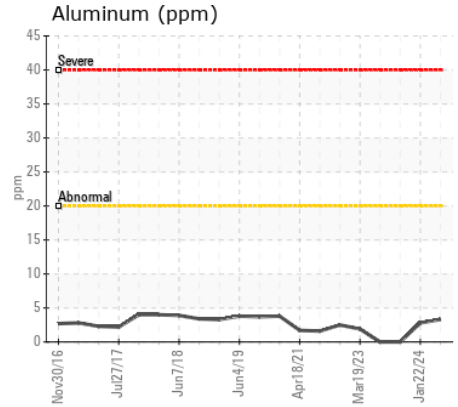
Iron (ppm)



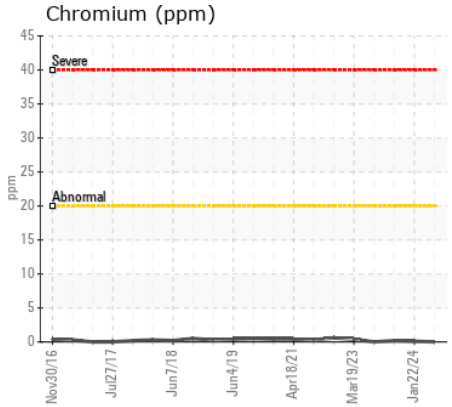
Lead (ppm)



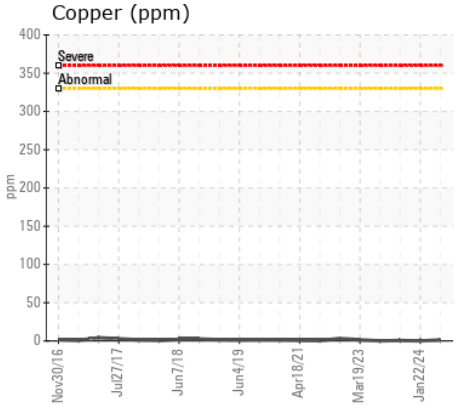
Aluminum (ppm)



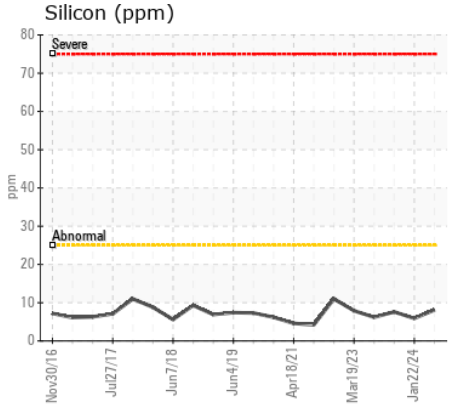
Chromium (ppm)



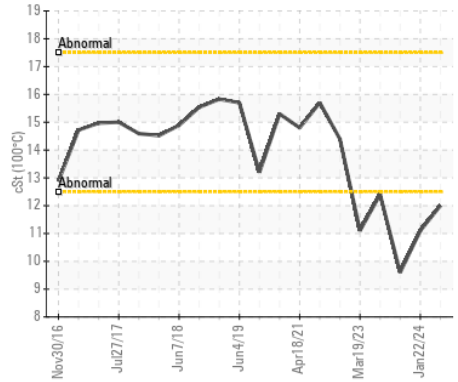
Copper (ppm)



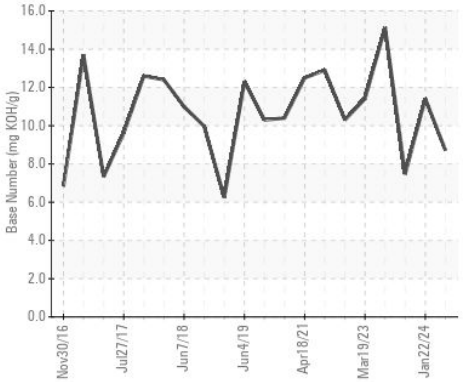
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06212597
Lab Number : 06212597
Unique Number : 11085461
Test Package : MOB 2 (Additional Tests: PercentFuel, TAN Man)

Received : 17 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Jonathan Hester

MITCHELL EXCAVATING - BODI MITCHELL
200 SOUTH 1455 WEST
LINDON, UT
US 84042
Contact: JOHN AAGARD

T: (801)796-3698
F:

To discuss this sample report, contact Customer Service at 1-800-827-0711.
** - 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)