TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DODGE DODGE RAM 2500HD
Component
Diesel Engine
Fluid
TRC PRO-SPEC V SYN BLEND 10W30 (11 LTR)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

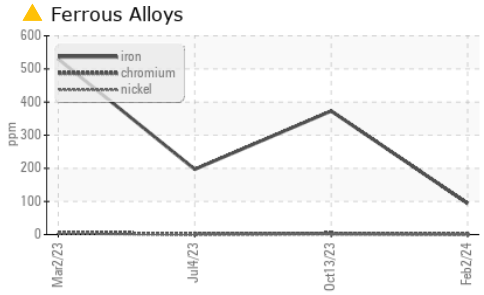
CONTAMINATION

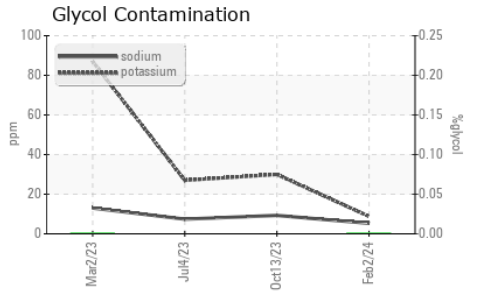
There is no indication of any contamination in the oil.

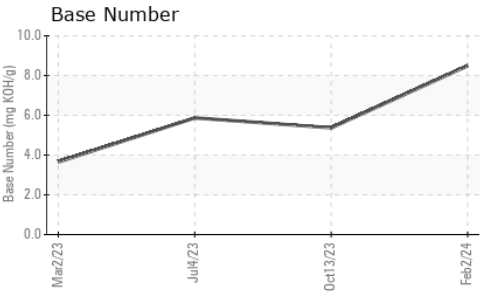
FLUID CONDITION

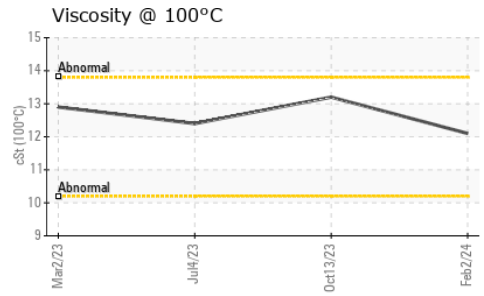
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

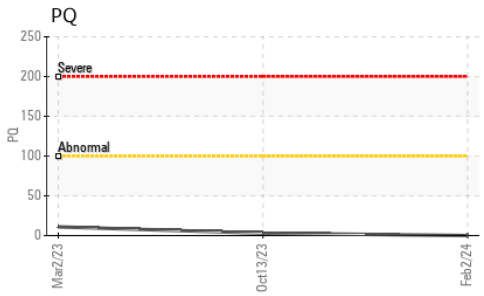
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02618270	TR02591345	TR02568681
Sample Date		Client Info		02 Feb 2024	13 Oct 2023	04 Jul 2023
Machine Age	kms	Client Info		136982	123677	110079
Oil Age	kms	Client Info		13305	21035	7437
Filter Age	kms	Client Info		13305	21035	7437
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	SEVERE	NORMAL
PQ		ASTM D8184*		0	3	---
Iron	ppm	ASTM D5185(m)	>90	▲ 94	⬢ 373	197
Chromium	ppm	ASTM D5185(m)	>20	<1	4	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	11	28	21
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	4	15	11
Tin	ppm	ASTM D5185(m)	>15	<1	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	6	12	9
Potassium	ppm	ASTM D5185(m)	>20	9	30	27
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.2	1.1	0.8
Nitration	Abs/cm	ASTM D7624*	>20	11.1	15.0	13.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	30.5	25.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		5	9	7
Boron	ppm	ASTM D5185(m)		52	32	38
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		244	263	239
Manganese	ppm	ASTM D5185(m)		<1	4	2
Magnesium	ppm	ASTM D5185(m)		24	47	43
Calcium	ppm	ASTM D5185(m)		2341	2556	2328
Phosphorus	ppm	ASTM D5185(m)		1058	1127	1114
Zinc	ppm	ASTM D5185(m)		1220	1387	1257
Sulfur	ppm	ASTM D5185(m)		3709	3304	3314
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.5	29.7	23.8
Base Number (BN)	mg KOH/g	ASTM D2896*		8.49	5.37	5.87
Visc @ 100°C	cSt	ASTM D7279(m)		12.1	13.2	12.4

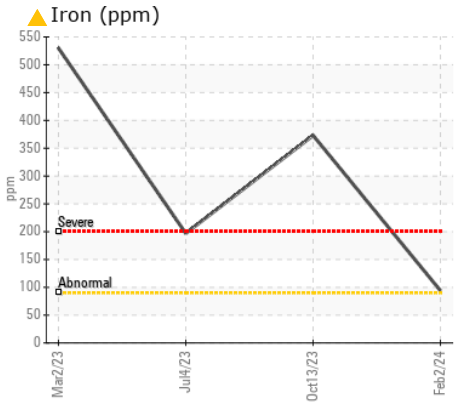


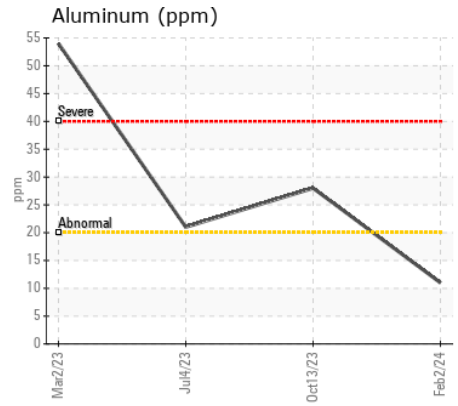


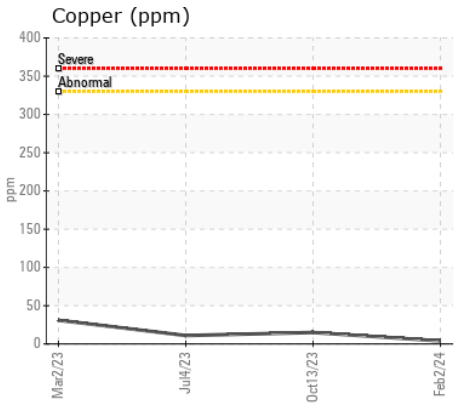


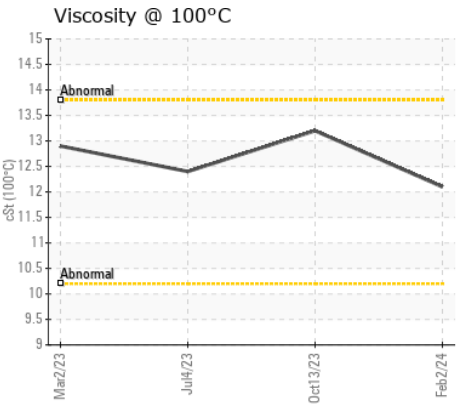


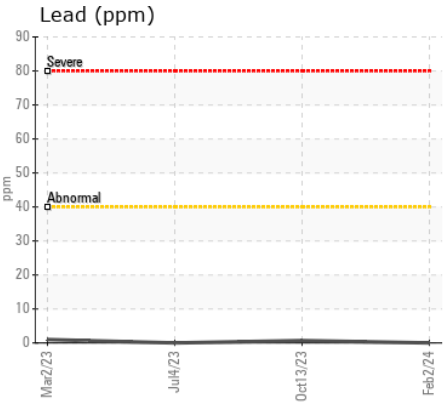


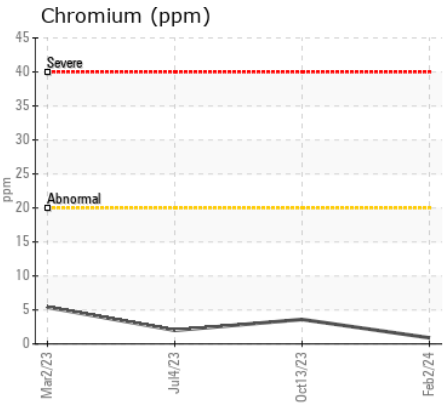


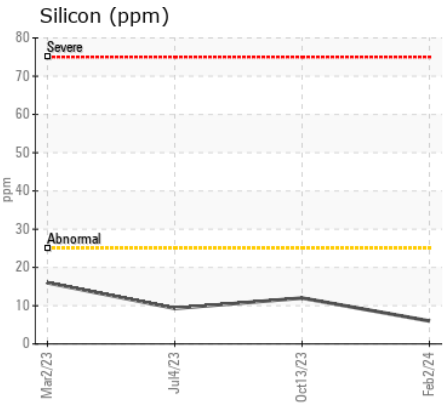


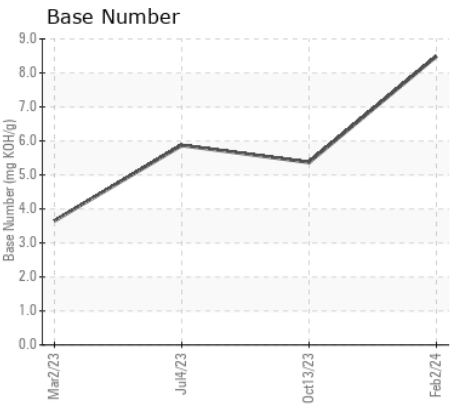












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02618270 **Received** : 27 Feb 2024
Lab Number : 02618270 **Tested** : 27 Feb 2024
Unique Number : 5735380 **Diagnosed** : 28 Feb 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: Glycol, PQ)

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)

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