



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
CHEVROLET COLORADO 2005 CHEVY COLORADO

Component
Gasoline Engine

Fluid
TRC PRO-SPEC MULTI VISC 5W30 (6 QTS)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06221443	TR05875098	TR05614425
Sample Date		Client Info		19 Jun 2024	08 Jun 2023	08 Aug 2022
Machine Age	mls	Client Info		160326	149760	139795
Oil Age	mls	Client Info		10566	9965	9460
Filter Age	mls	Client Info		10566	9965	9460
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	148	74	43
Chromium	ppm	ASTM D5185m	>20	2	1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	11	6	7
Lead	ppm	ASTM D5185m	>50	0	0	<1
Copper	ppm	ASTM D5185m	>155	7	5	4
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

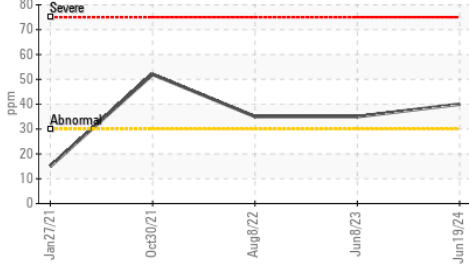
Silicon	ppm	ASTM D5185m	>30	40	35	35
Potassium	ppm	ASTM D5185m	>20	2	1	4
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	19.1	18.7	19.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.8	31.4	32.2
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

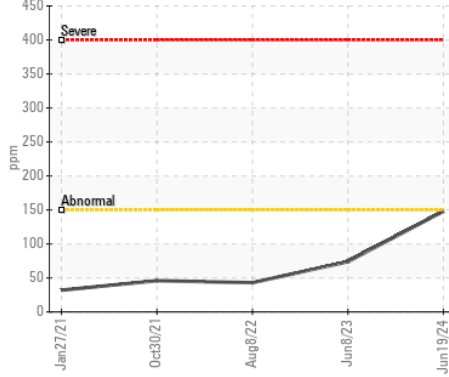
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>400	6	6	6
Boron	ppm	ASTM D5185m		25	27	28
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		198	241	243
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m		479	457	329
Calcium	ppm	ASTM D5185m	4200	1464	1470	1330
Phosphorus	ppm	ASTM D5185m	800	674	682	585
Zinc	ppm	ASTM D5185m	800	959	876	727
Sulfur	ppm	ASTM D5185m		2156	2486	1804
Oxidation	Abs/.1mm	*ASTM D7414	>25	34.2	33.9	33.1
Base Number (BN)	mg KOH/g	ASTM D2896	15	3.82	5.49	3.42
Visc @ 100°C	cSt	ASTM D445	9.98	10.4	10.4	10.0

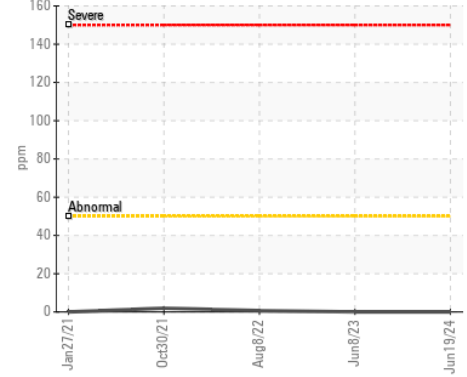
▲ Silicon (ppm)



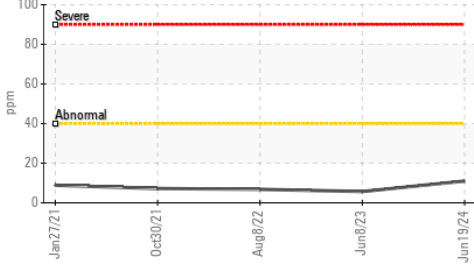
Iron (ppm)



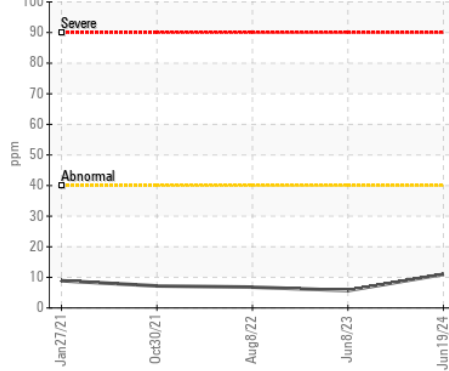
Lead (ppm)



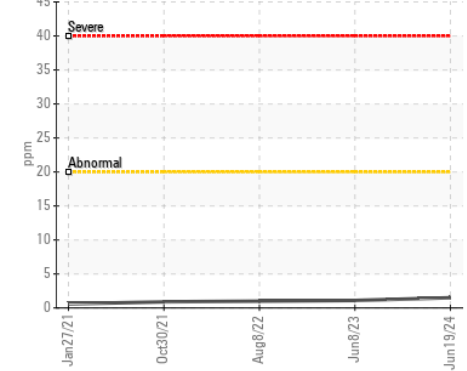
● Aluminum (ppm)



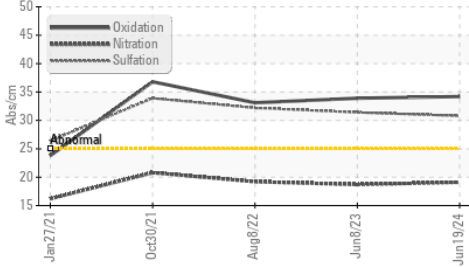
● Aluminum (ppm)



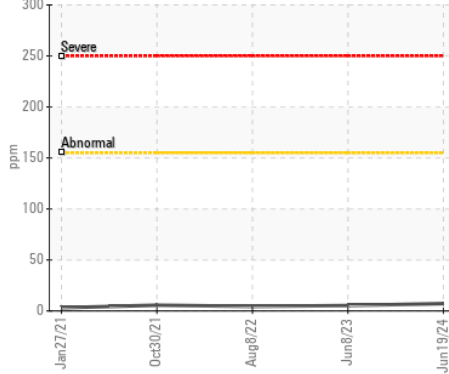
Chromium (ppm)



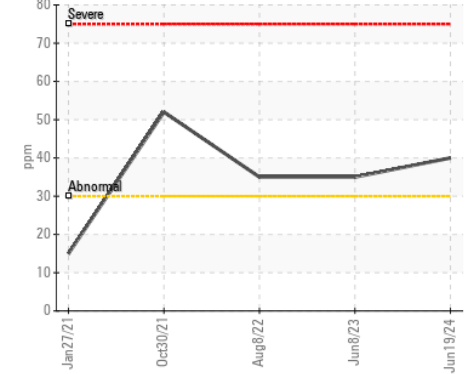
FT-IR (Direct Trend)



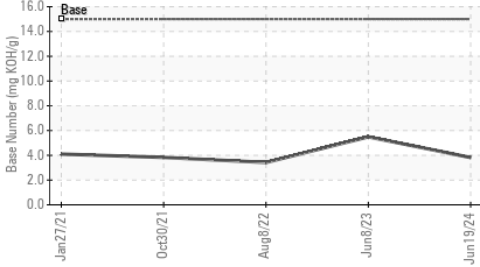
Copper (ppm)



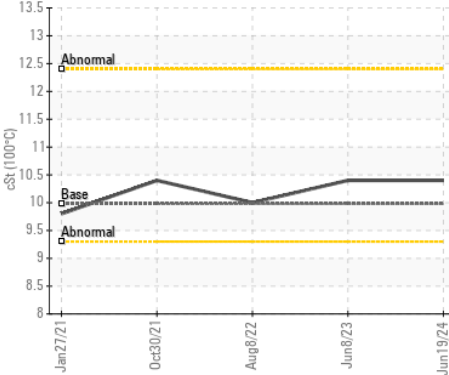
▲ Silicon (ppm)



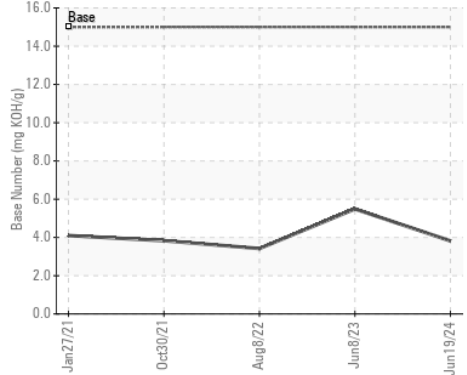
Base Number



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : TR06221443
 Lab Number : 06221443
 Unique Number : 11099640
 Test Package : MOB 2
 Received : 26 Jun 2024
 Tested : 27 Jun 2024
 Diagnosed : 27 Jun 2024 - Sean Felton

PRECISION FARMS LLC
 PO BOX 217
 LEIGH, NE
 US 68643
 Contact: ADAM COURTNEY

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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