TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR 966H 966H-L06 A6D00520
Component
Diesel Engine
Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (9 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

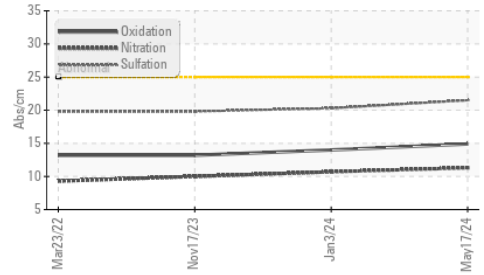
There is no indication of any contamination in the oil.

FLUID CONDITION

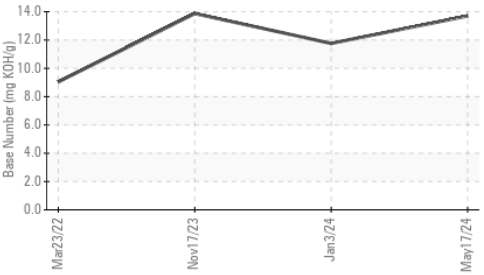
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06189781	TR06055064	TR06018437
Sample Date		Client Info		17 May 2024	03 Jan 2024	17 Nov 2023
Machine Age	hrs	Client Info		27087	26592	26313
Oil Age	hrs	Client Info		1421	926	647
Filter Age	hrs	Client Info		1421	926	647
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	71	59	43
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	1	<1	0
Aluminum	ppm	ASTM D5185m	>25	3	2	2
Lead	ppm	ASTM D5185m	>40	6	8	12
Copper	ppm	ASTM D5185m	>330	185	306	328
Tin	ppm	ASTM D5185m	>15	6	9	9
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	10	12	12
Potassium	ppm	ASTM D5185m	>20	3	4	<1
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	0.8	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	11.3	10.7	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	20.3	19.8
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		26	21	17
Boron	ppm	ASTM D5185m		7	15	22
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		124	112	99
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		108	176	200
Calcium	ppm	ASTM D5185m		3721	3666	3343
Phosphorus	ppm	ASTM D5185m		841	803	895
Zinc	ppm	ASTM D5185m		1034	1085	994
Sulfur	ppm	ASTM D5185m		4003	4232	3784
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	14.0	13.2
Base Number (BN)	mg KOH/g	ASTM D2896		13.70	11.76	13.87
Visc @ 100°C	cSt	ASTM D445		13.0	14.4	14.5

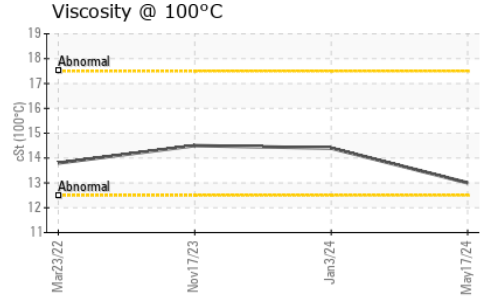
FT-IR (Direct Trend)



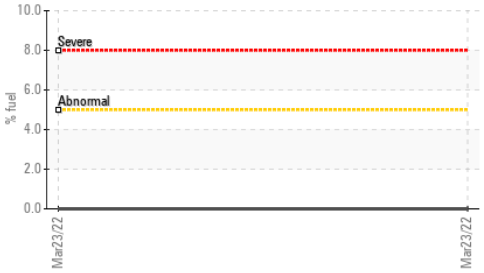
Base Number



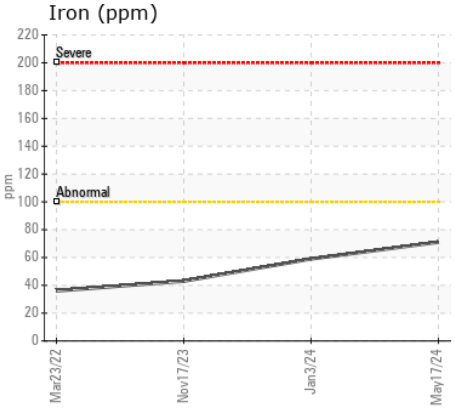
Viscosity @ 100°C



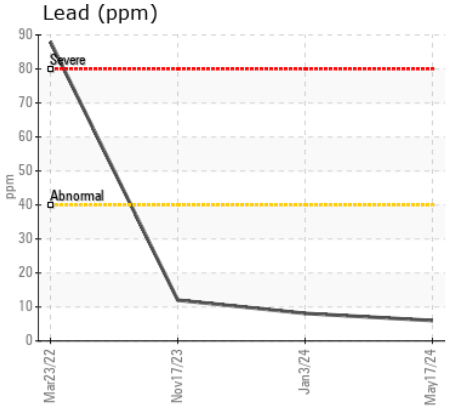
Fuel Dilution



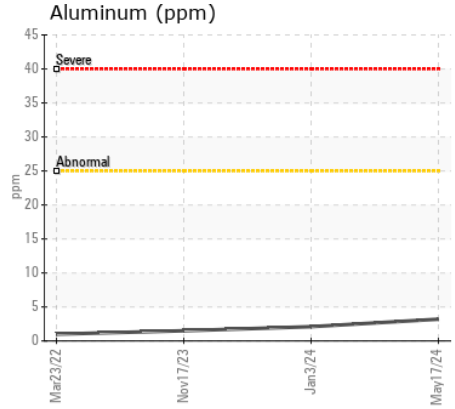
Iron (ppm)



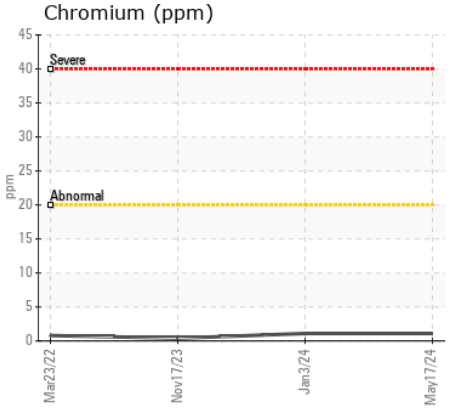
Lead (ppm)



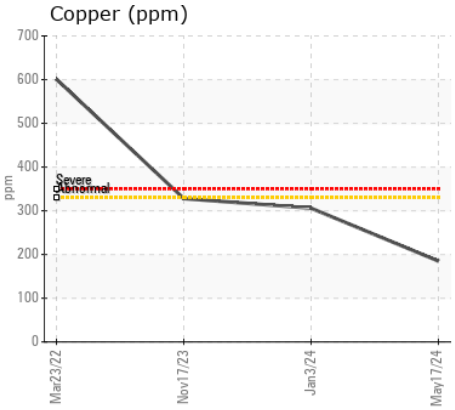
Aluminum (ppm)



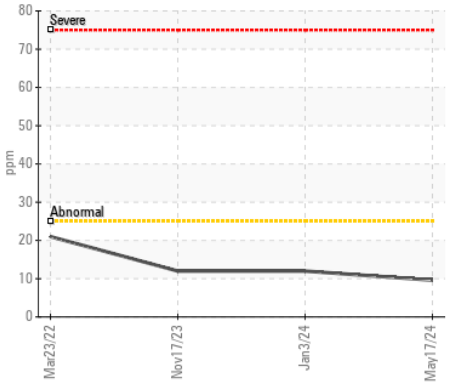
Chromium (ppm)



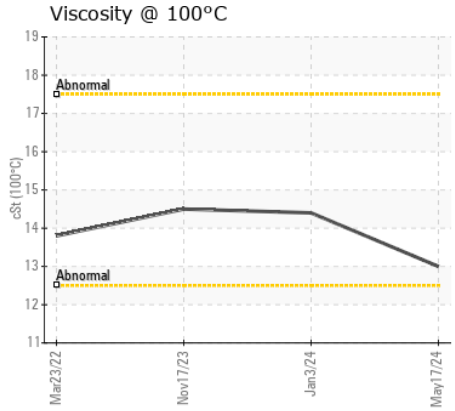
Copper (ppm)



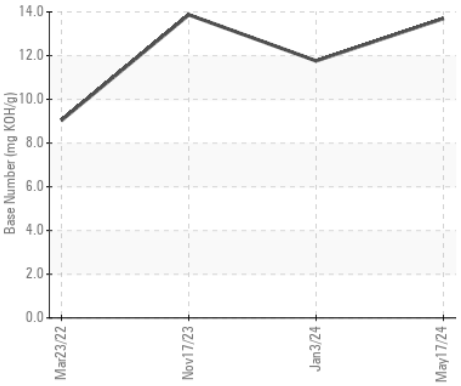
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06189781 **Received** : 23 May 2024
Lab Number : 06189781 **Tested** : 29 May 2024
Unique Number : 11046533 **Diagnosed** : 29 May 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution)

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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