



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CUMMINS 855 855-22
 Component
Natural Gas Engine
 Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06217421	TR05931669	TR05645062
Sample Date		Client Info		11 Jun 2024	12 Aug 2023	14 Sep 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		1160	1069	1203
Filter Age	hrs	Client Info		0	1069	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	27	13	7
Chromium	ppm	ASTM D5185m	>4	2	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>9	6	4	5
Lead	ppm	ASTM D5185m	>30	2	<1	1
Copper	ppm	ASTM D5185m	>35	3	2	1
Tin	ppm	ASTM D5185m	>4	<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

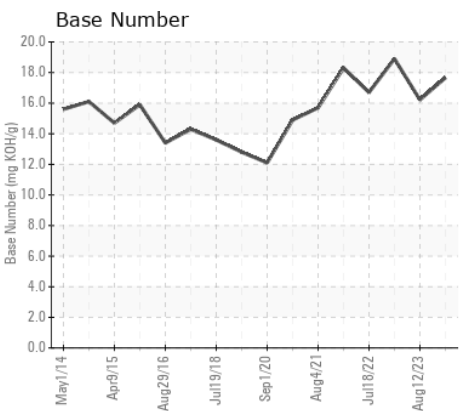
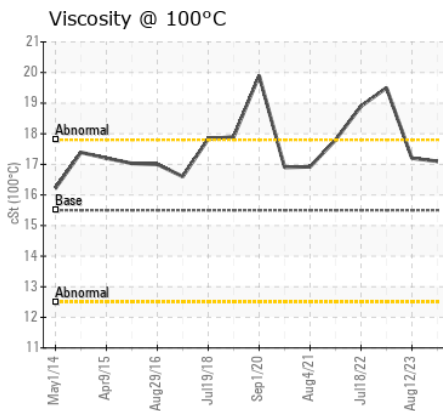
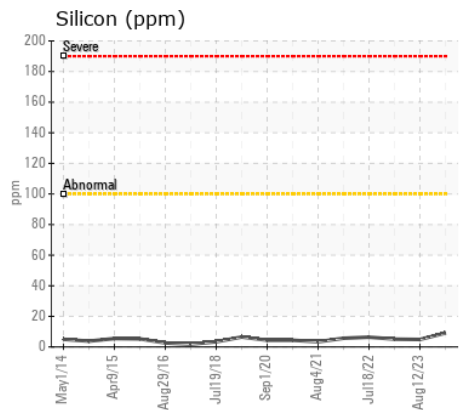
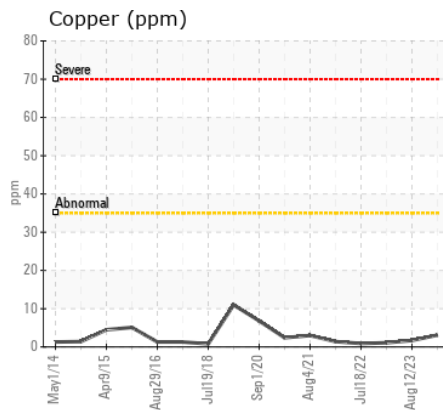
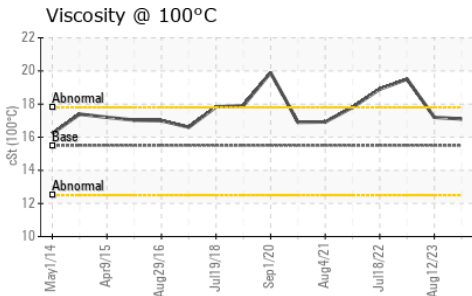
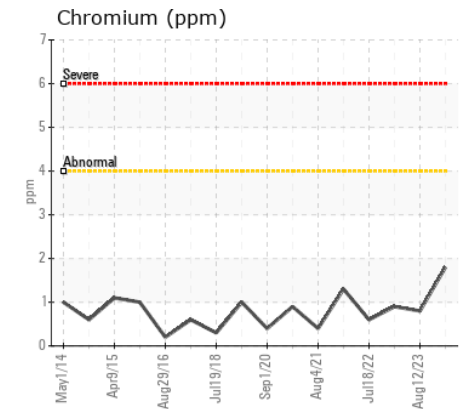
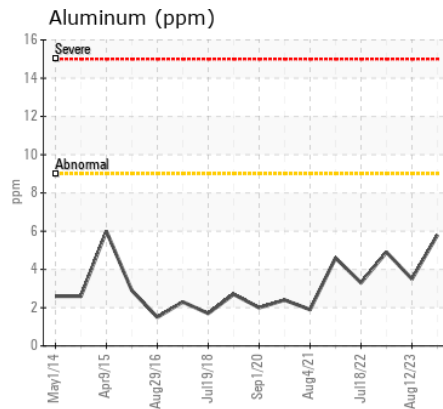
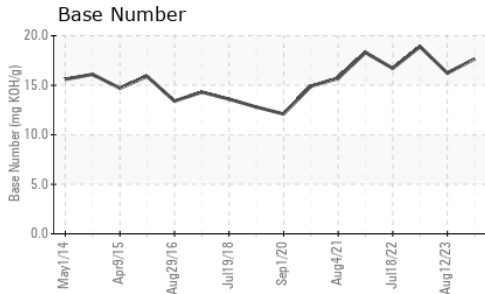
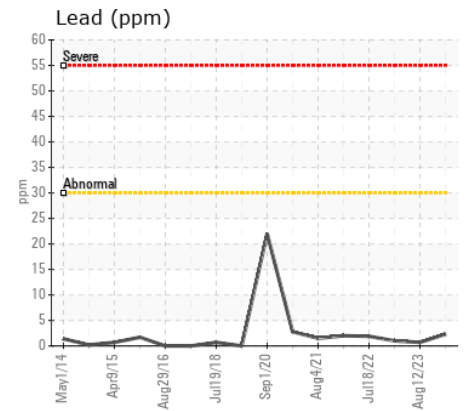
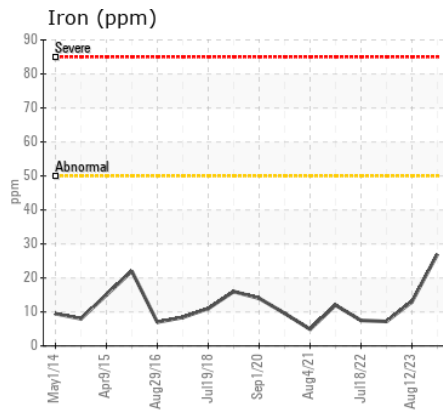
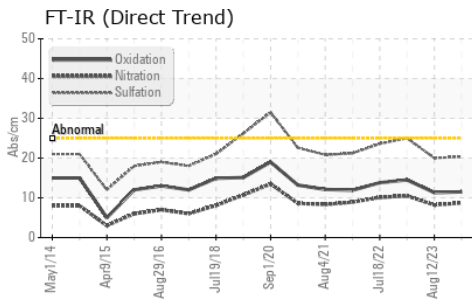
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	9	5	5
Potassium	ppm	ASTM D5185m	>20	5	3	2
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.2	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	20.0	25.0
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	>0.1	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		5	2	4
Boron	ppm	ASTM D5185m		1	0	4
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		3	<1	4
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		34	21	31
Calcium	ppm	ASTM D5185m		8126	5972	6753
Phosphorus	ppm	ASTM D5185m		1437	1028	1167
Zinc	ppm	ASTM D5185m		1718	1271	1516
Sulfur	ppm	ASTM D5185m		6118	4508	5169
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.5	11.3	14.5
Base Number (BN)	mg KOH/g	ASTM D2896		17.66	16.22	18.9
Visc @ 100°C	cSt	ASTM D445	15.5	17.1	17.2	▲ 19.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06217421
Lab Number : 06217421
Unique Number : 11090285
Test Package : MOB 2

ELWON WILSON
 33305 9 RD
 MONTEZUMA, KS
 US 67867
 Contact: CALVIN KOEHN

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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F: