



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CASE IH STEIGER 535 Z8F109453

Component
Diesel Engine

Fluid
TRC PRO-SPEC IV XP SYN BLEND 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05987529	TR06050332	TR05924507
Sample Date		Client Info		14 Oct 2023	26 Sep 2023	09 Aug 2023
Machine Age	hrs	Client Info		9006	8886	8659
Oil Age	hrs	Client Info		347	227	587
Filter Age	hrs	Client Info		347	227	587
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	37	29	72
Chromium	ppm	ASTM D5185m	>20	2	<1	2
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	2	2	6
Copper	ppm	ASTM D5185m	>330	2	<1	3
Tin	ppm	ASTM D5185m	>15	1	1	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

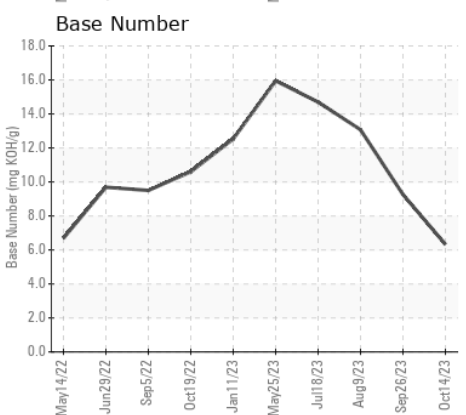
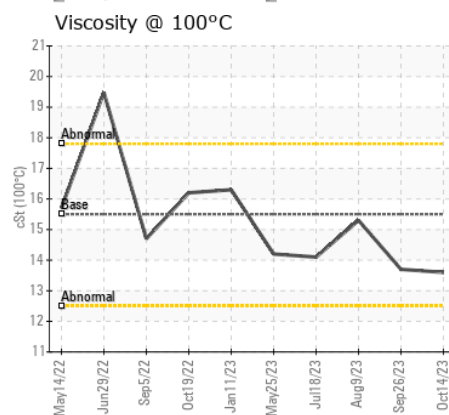
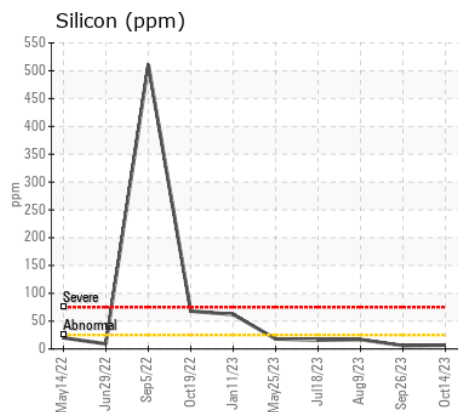
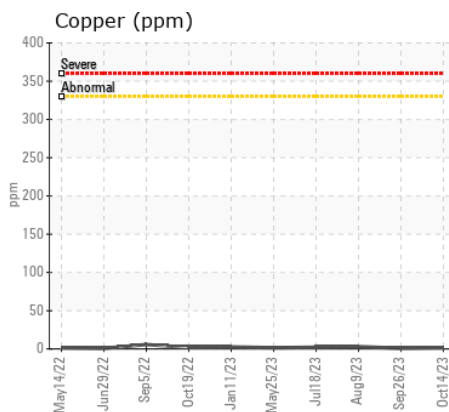
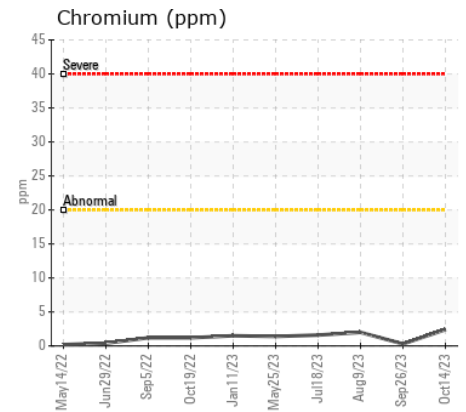
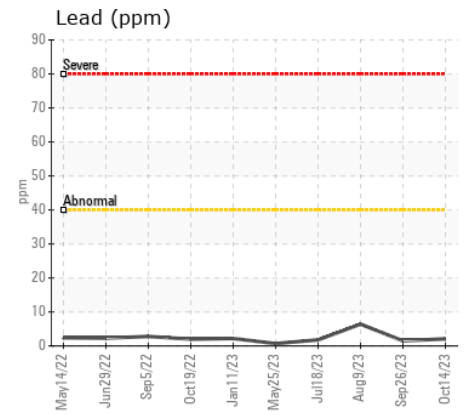
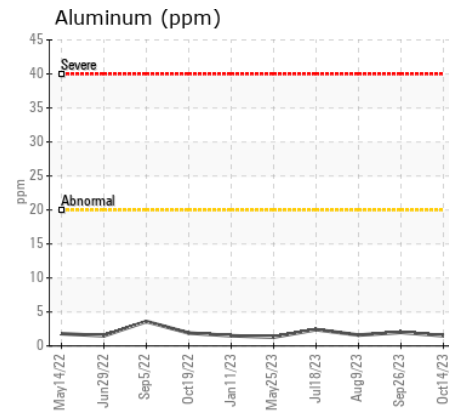
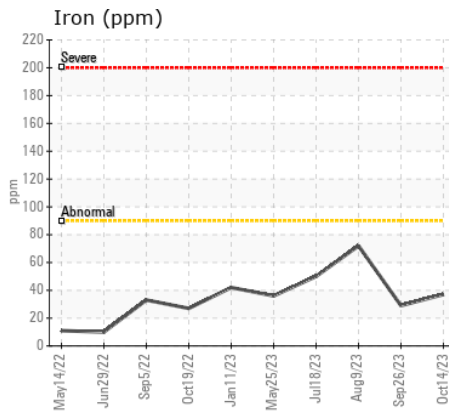
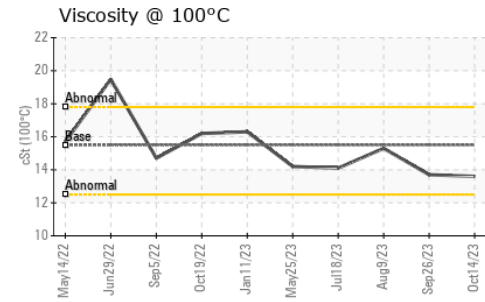
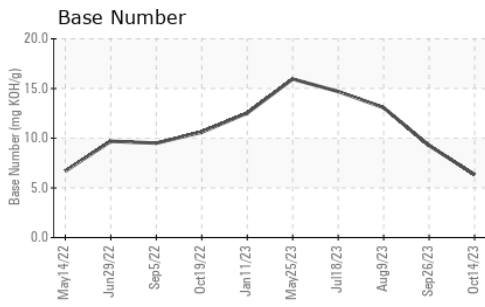
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	6	17
Potassium	ppm	ASTM D5185m	>20	2	2	4
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.9	0.7	1.4
Nitration	Abs/cm	*ASTM D7624	>20	7.3	6.8	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	20.7	24.2
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		0	0	2
Boron	ppm	ASTM D5185m		59	67	<1
Barium	ppm	ASTM D5185m		10	<1	0
Molybdenum	ppm	ASTM D5185m		54	52	7
Manganese	ppm	ASTM D5185m		<1	0	1
Magnesium	ppm	ASTM D5185m		298	312	39
Calcium	ppm	ASTM D5185m		2005	2056	4631
Phosphorus	ppm	ASTM D5185m		987	960	929
Zinc	ppm	ASTM D5185m		1164	1177	1194
Sulfur	ppm	ASTM D5185m		3701	3593	4892
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	14.7	14.6
Base Number (BN)	mg KOH/g	ASTM D2896		6.33	9.26	13.07
Visc @ 100°C	cSt	ASTM D445	15.5	13.6	13.7	15.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05987529
Lab Number : 05987529
Unique Number : 10710191
Test Package : MOB 2
Received : 23 Oct 2023
Tested : 24 Oct 2023
Diagnosed : 25 Oct 2023 - Sean Felton

LARRY SCHMIDT
 8703 HIGHWAY 61
 ALLIGATOR, MS
 US 38720-9700
 Contact: LARRY SCHMIDT
 LARRYWSCHMIDT86@YAHOO.COM

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)