



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL HV607 802 (S/N 098457)
 Component
Diesel Engine
 Fluid
TRC PRO-SPEC IV SYN BLEND SAE 15W40 (23 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06228152	TR06006548	TR05776213
Sample Date		Client Info		20 Jan 2024	08 Jul 2023	22 Oct 2022
Machine Age	mls	Client Info		147000	132201	116748
Oil Age	mls	Client Info		16000	15454	16323
Filter Age	mls	Client Info		16000	15454	16323
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	84	21	26
Chromium	ppm	ASTM D5185m	>20	8	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	2	4
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>330	3	2	3
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

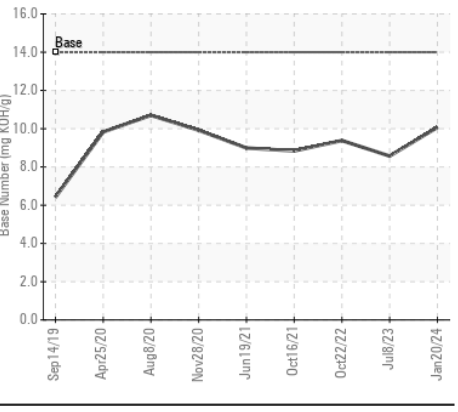
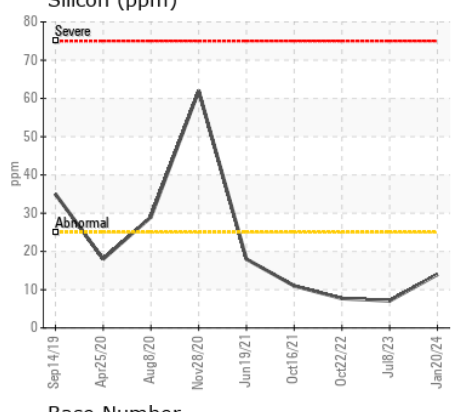
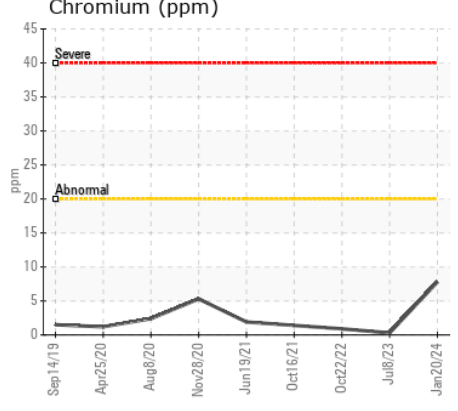
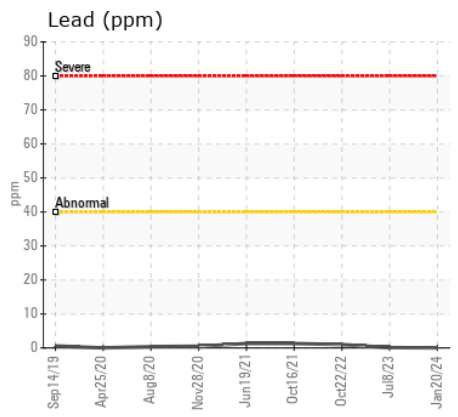
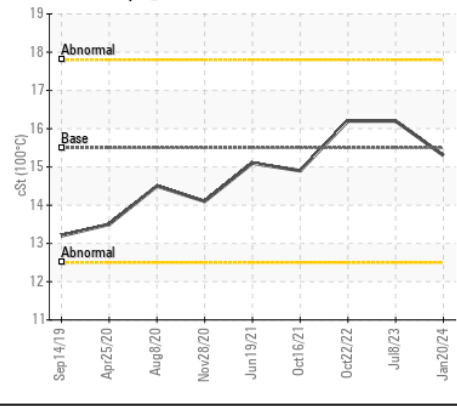
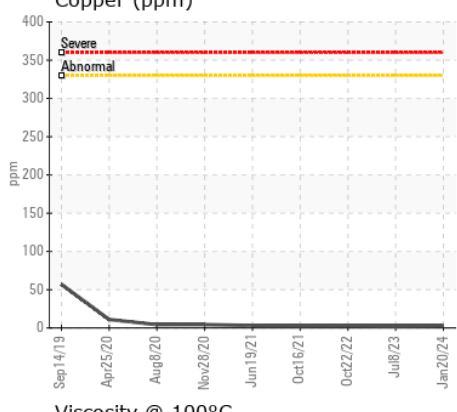
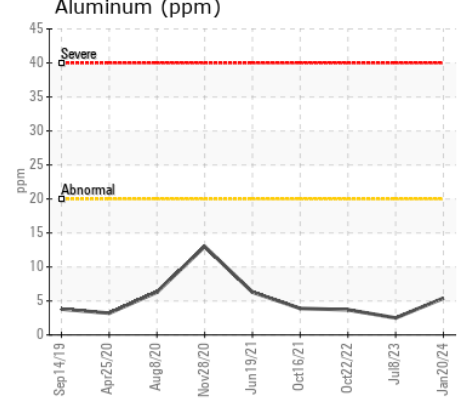
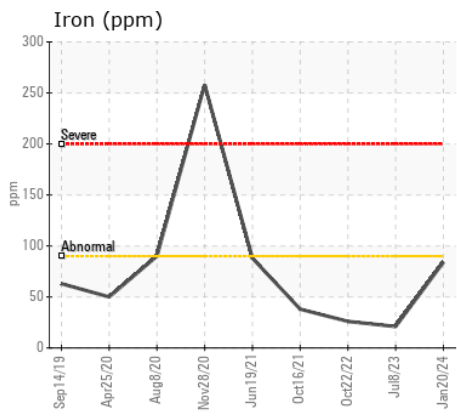
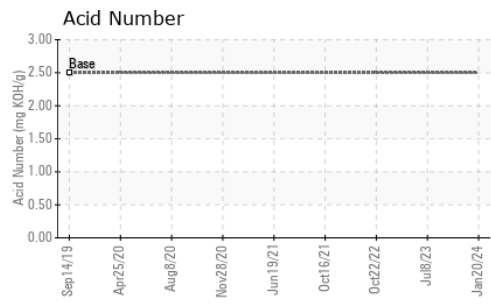
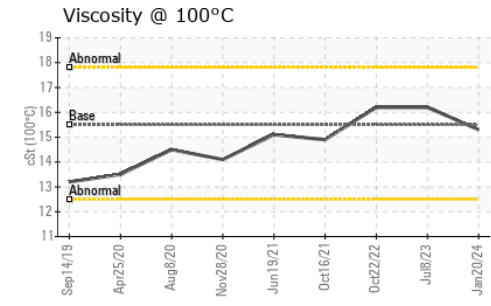
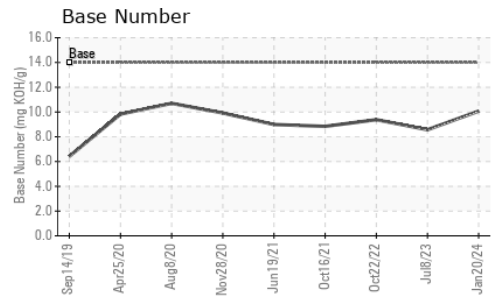
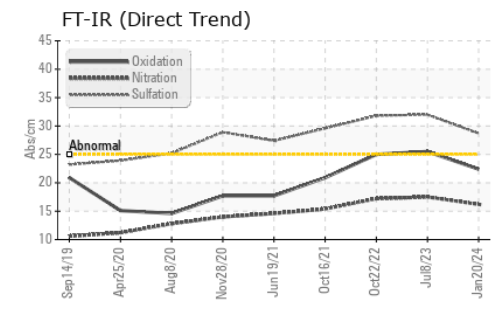
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	14	7	8
Potassium	ppm	ASTM D5185m	>20	3	1	<1
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	0.6	0.7	0.9
Nitration	Abs/cm	*ASTM D7624	>20	16.2	17.5	17.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.7	32.0	31.8
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

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		3	3	3
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	19	0	0
Molybdenum	ppm	ASTM D5185m	0	2	<1	7
Manganese	ppm	ASTM D5185m		1	0	<1
Magnesium	ppm	ASTM D5185m	9	21	23	19
Calcium	ppm	ASTM D5185m	2300	5614	4611	4650
Phosphorus	ppm	ASTM D5185m	1000	1056	1015	920
Zinc	ppm	ASTM D5185m	1200	1340	1174	1111
Sulfur	ppm	ASTM D5185m	3100	4856	4259	4843
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.4	25.5	25.0
Base Number (BN)	mg KOH/g	ASTM D2896	14	10.07	8.57	9.38
Visc @ 100°C	cSt	ASTM D445	15.5	15.3	16.2	16.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06228152 **Received** : 03 Jul 2024
Lab Number : 06228152 **Tested** : 08 Jul 2024
Unique Number : 11111645 **Diagnosed** : 08 Jul 2024 - Angela Borella
Test Package : MOB 2 (Additional Tests: TAN Man)

ZACHRY FARMS
 15231 COUNTY FARM RD
 CARLYLE, IL
 US 62231
 Contact: CHARLES FLATT

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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