



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id

17

Component

Diesel Engine

Fluid

TRC MOLY XL PRO-SPEC IV XP 15W40 (12 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR0001316	TR0000534	TR0000307
Sample Date		Client Info		09 Jan 2024	17 Mar 2022	23 Nov 2021
Machine Age	hrs	Client Info		10723	8838	8168
Oil Age	hrs	Client Info		10723	2	0
Filter Age	hrs	Client Info		10723	2	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	8	51	42
Chromium	ppm	ASTM D5185m	>5	<1	3	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	7	6
Lead	ppm	ASTM D5185m	>150	<1	13	12
Copper	ppm	ASTM D5185m	>90	1	10	10
Tin	ppm	ASTM D5185m	>5	<1	3	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

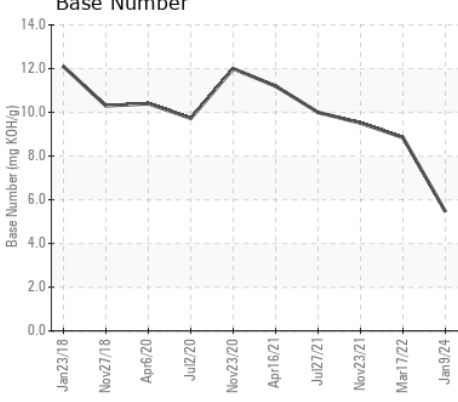
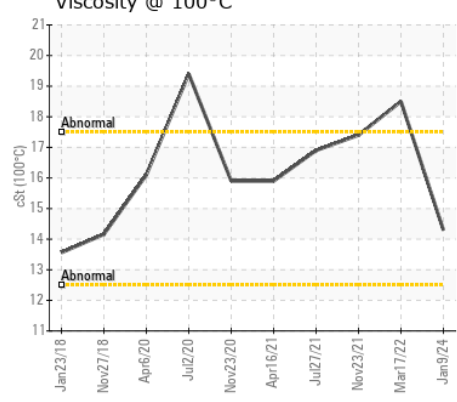
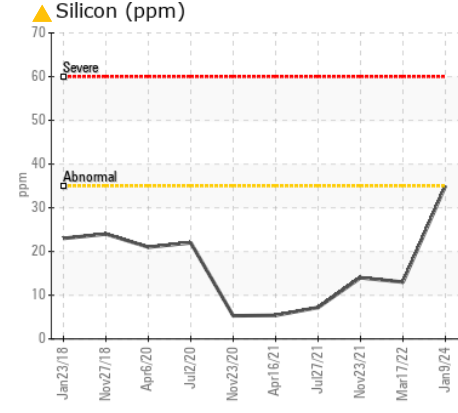
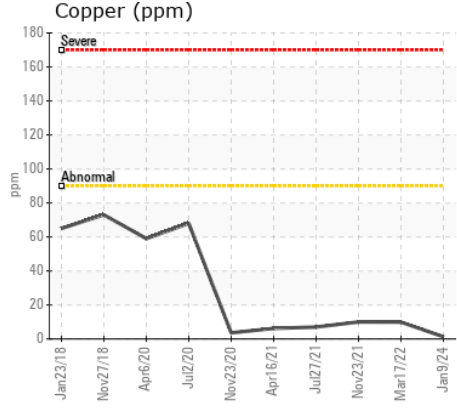
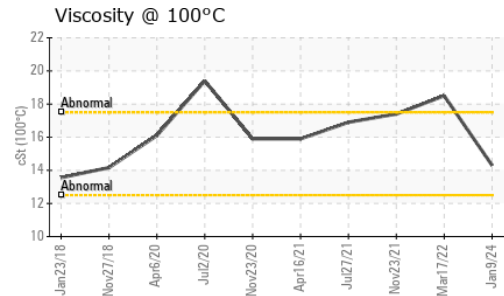
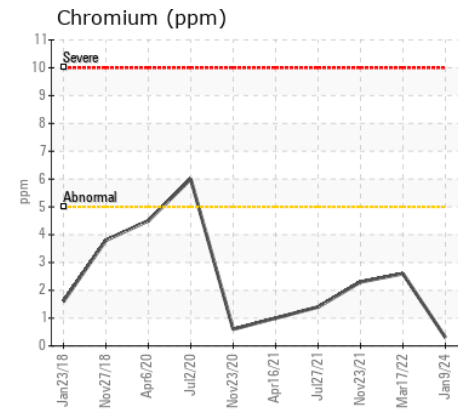
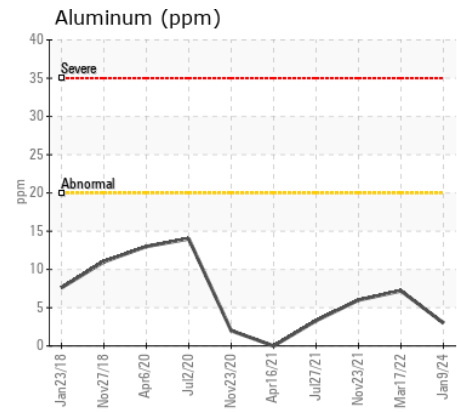
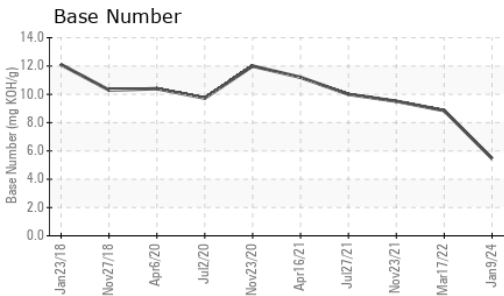
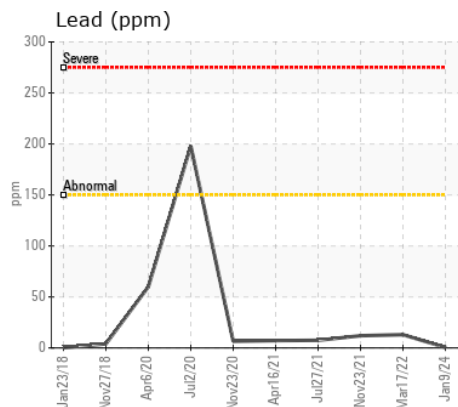
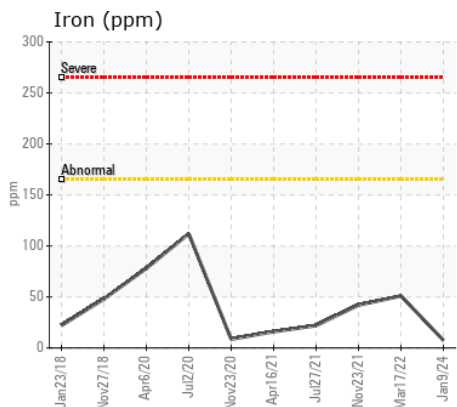
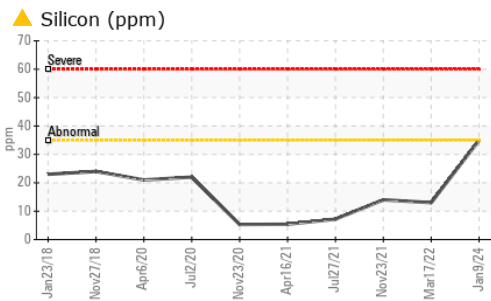
Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>35	▲ 35	13	14
Potassium	ppm	ASTM D5185m	>20	5	10	11
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	>7.5	0.5	1.7	1.5
Nitration	Abs/cm	*ASTM D7624	>20	8.2	20.2	17.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	37.0	34.9
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		2	8	7
Boron	ppm	ASTM D5185m		2	3	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		38	138	149
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		16	43	27
Calcium	ppm	ASTM D5185m		2683	4983	5145
Phosphorus	ppm	ASTM D5185m		880	1007	1076
Zinc	ppm	ASTM D5185m		1000	1078	1133
Sulfur	ppm	ASTM D5185m		3485	3767	3803
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.5	31.3	27.7
Base Number (BN)	mg KOH/g	ASTM D2896		5.46	8.85	9.51
Visc @ 100°C	cSt	ASTM D445		14.3	18.5	17.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR0001316 **Received** : 12 Jan 2024
Lab Number : 06060433 **Diagnosed** : 16 Jan 2024
Unique Number : 10831815 **Diagnostician** : Don Baldrige
Test Package : MOB 2

S S CONCRETE MATERIALS LLC
 P.O. BOX 23283
 BULLHEAD CITY, AZ
 US 86439
 Contact: MARK OPHEIM

Certificate L2367
 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)

T:
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