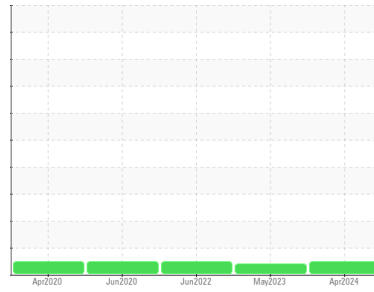




OIL ANALYSIS REPORT

Area
Watkins Block Truck Shop Omaha
 Machine Id
207 [Watkins Block Truck Shop Omaha]
 Component
Front Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (38 QTS)

Sample Rating Trend



NORMAL



DIAGNOSIS

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		SBP0007083	SBP0002224	SBP0000265
Sample Date	Client Info		18 Apr 2024	03 May 2023	13 Jun 2022
Machine Age	mls	Client Info	133283	111276	96309
Oil Age	mls	Client Info	23198	8077	14930
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	ATTENTION	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	31	21	27
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >5	<1	<1	0
Titanium	ppm	ASTM D5185m >2	0	<1	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >20	6	5	5
Lead	ppm	ASTM D5185m >40	0	0	<1
Copper	ppm	ASTM D5185m >330	3	3	3
Tin	ppm	ASTM D5185m >15	<1	1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	2	8	24
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 50	60	47	10
Manganese	ppm	ASTM D5185m 0	1	<1	1
Magnesium	ppm	ASTM D5185m 950	972	953	726
Calcium	ppm	ASTM D5185m 1050	1155	1281	1385
Phosphorus	ppm	ASTM D5185m 995	1036	992	743
Zinc	ppm	ASTM D5185m 1180	1278	1189	889
Sulfur	ppm	ASTM D5185m 2600	2889	3388	2815

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	4	7
Sodium	ppm	ASTM D5185m	6	2	4
Potassium	ppm	ASTM D5185m >20	9	8	9
Chlorine	ppm	ASTM D5185m	---	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.7	0.5	0.6
Nitration	Abs/cm	*ASTM D7624 >20	11.7	9.8	11.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.5	20.8	25.4

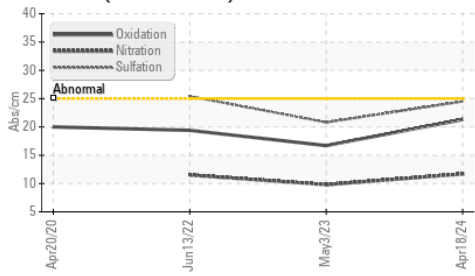
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.3	16.7	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	4.0	4.7	5.7

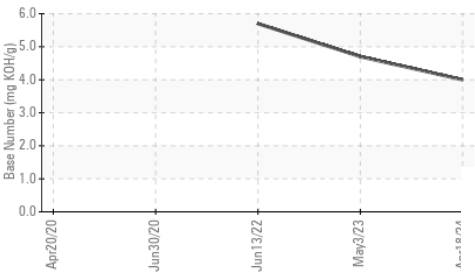


OIL ANALYSIS REPORT

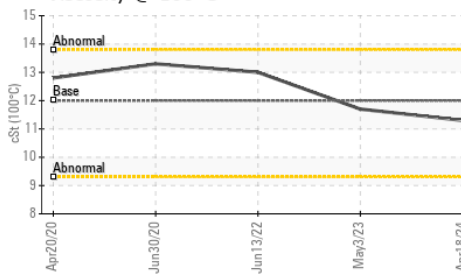
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

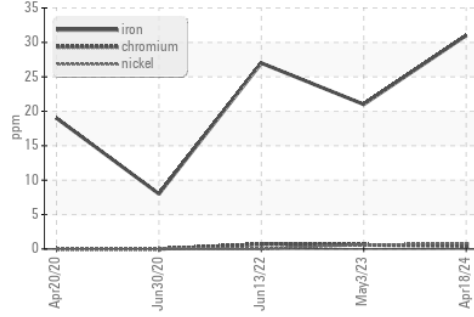


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

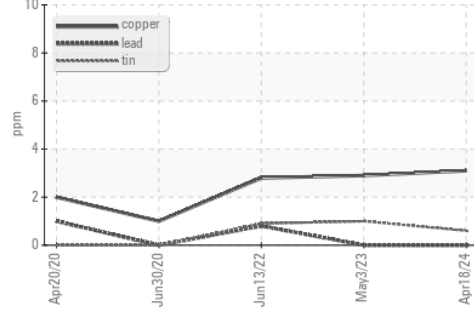
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.7

GRAPHS

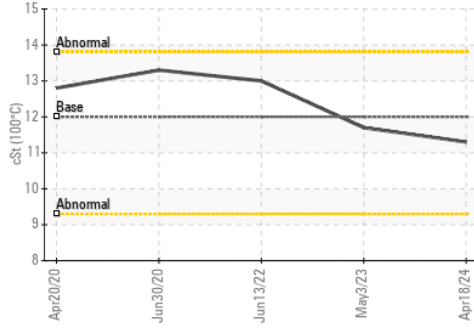
Ferrous Alloys



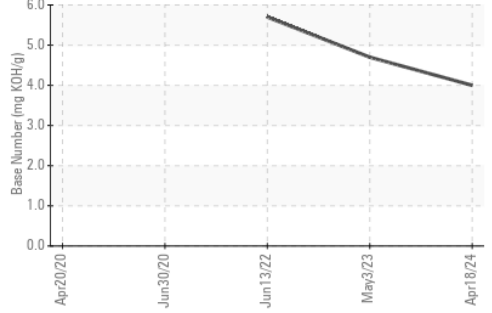
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0007083
Lab Number : 06158367
Unique Number : 10993790
Test Package : FLEET
Received : 23 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Wes Davis

Watkins Block Truck Shop Omaha - 602227
 14306 Giles Rd
 Omaha, NE
 US 68138
 Contact: Dave Hozba
 daveh@watkinsconcreteblock.com
 T: (402)894-6518
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - 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)