

Machine Id
HITACHI LR19-114
Component
Transmission
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA DURON SHP 10W30, however, a fluid match indicates that this fluid is SAE 20 Diesel Engine Oil. Please confirm the fluid type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0068898	PC0068844	---
Sample Date		Client Info		11 Mar 2024	28 Oct 2023	---
Machine Age	hrs	Client Info		3132	2794	---
Oil Age	hrs	Client Info		863	524	---
Filter Age	hrs	Client Info		863	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185(m)	>200	28	24	---
Chromium	ppm	ASTM D5185(m)	>10	0	0	---
Nickel	ppm	ASTM D5185(m)		<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	<1	---
Aluminum	ppm	ASTM D5185(m)	>50	2	2	---
Lead	ppm	ASTM D5185(m)	>50	2	3	---
Copper	ppm	ASTM D5185(m)	>200	45	41	---
Tin	ppm	ASTM D5185(m)	>10	<1	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the fluid.

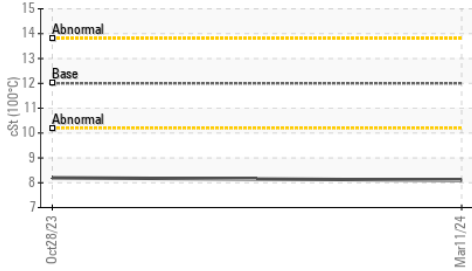
Silicon	ppm	ASTM D5185(m)	>50	4	5	---
Potassium	ppm	ASTM D5185(m)	>20	<1	0	---
Water		WC Method	>0.1	NEG	NEG	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	---

FLUID CONDITION

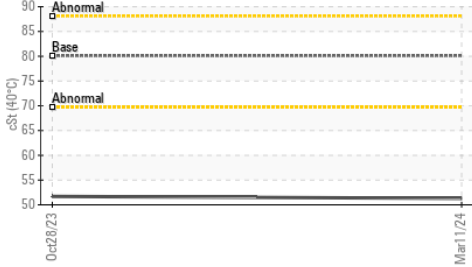
Viscosity of sample indicates oil is within SAE 20 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sodium	ppm	ASTM D5185(m)		2	2	---
Boron	ppm	ASTM D5185(m)	2	2	2	---
Barium	ppm	ASTM D5185(m)	0	<1	<1	---
Molybdenum	ppm	ASTM D5185(m)	50	38	39	---
Manganese	ppm	ASTM D5185(m)	0	0	0	---
Magnesium	ppm	ASTM D5185(m)	950	607	613	---
Calcium	ppm	ASTM D5185(m)	1050	2202	2275	---
Phosphorus	ppm	ASTM D5185(m)	995	946	973	---
Zinc	ppm	ASTM D5185(m)	1180	1067	1119	---
Sulfur	ppm	ASTM D5185(m)	2600	2994	3197	---
Acid Number (AN)	mg KOH/g	ASTM D974*		1.03	1.50	---
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	51.3	51.7	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	8.1	8.2	---
Viscosity Index (VI)	Scale	ASTM D2270*	144	128	130	---

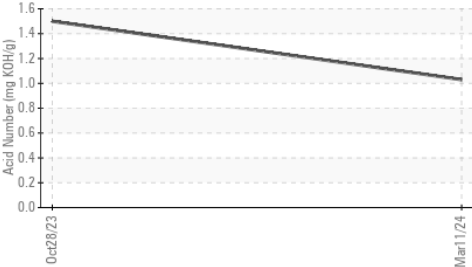
▲ Viscosity @ 100°C



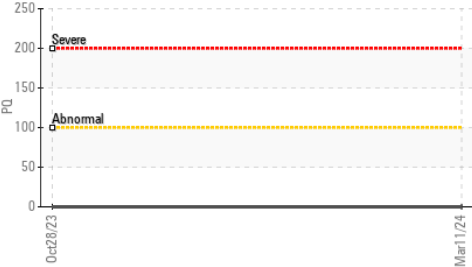
▲ Viscosity @ 40°C



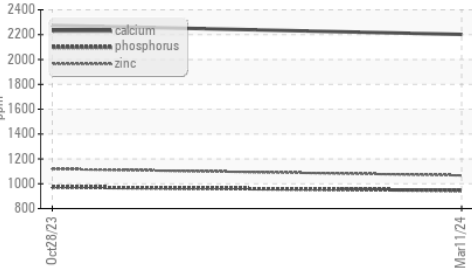
Acid Number



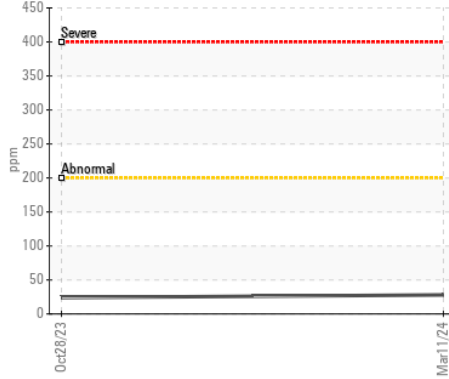
PQ



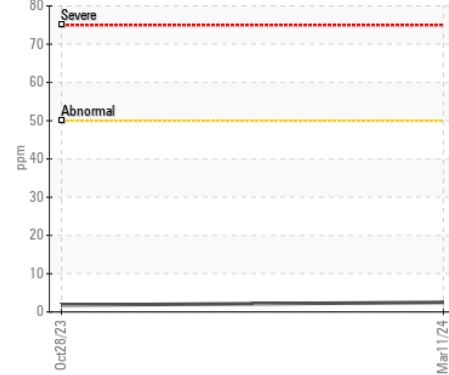
Additives



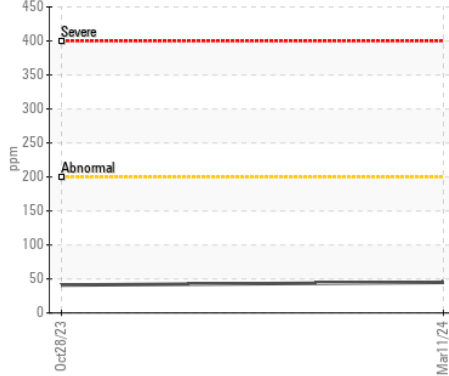
Iron (ppm)



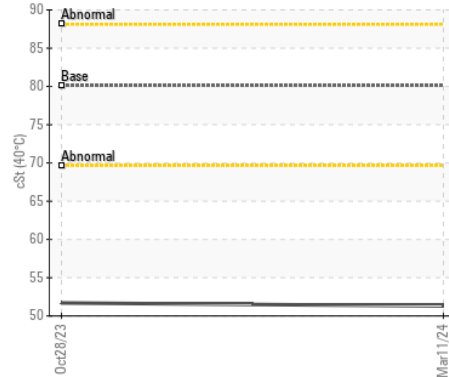
Aluminum (ppm)



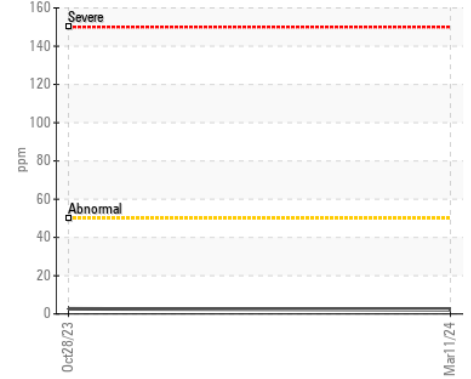
Copper (ppm)



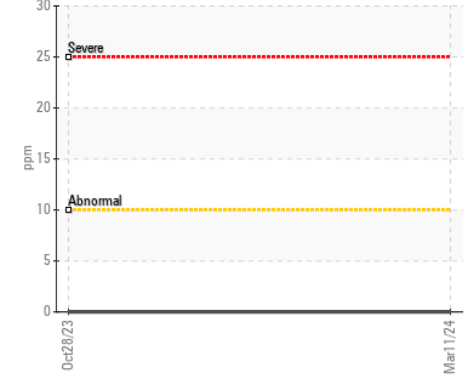
▲ Viscosity @ 40°C



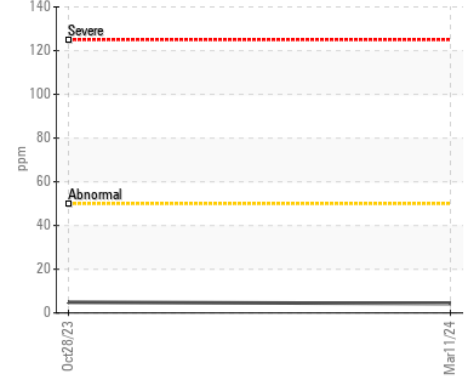
Lead (ppm)



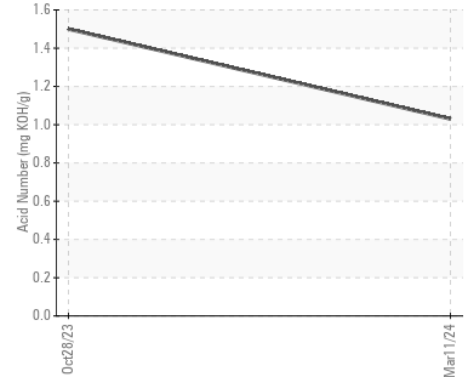
Chromium (ppm)



Silicon (ppm)



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0068898 **Received** : 03 Apr 2024
Lab Number : 02626447 **Tested** : 04 Apr 2024
Unique Number : 5759579 **Diagnosed** : 04 Apr 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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