



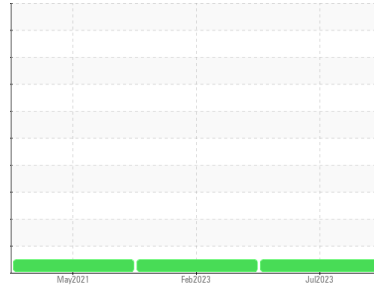
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
BARTO
 Machine Id
7066 [BARTO]
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



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			SBP0004376	SBP0002241	SBP47480035
Sample Date	Client Info			28 Jul 2023	24 Feb 2023	24 May 2021
Machine Age	mls Client Info			319639	280443	136698
Oil Age	mls Client Info			39197	40000	33958
Oil Changed	Client Info			Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>6.0		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	25	42	24
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	12	5
Lead	ppm	ASTM D5185m	>40	0	2	2
Copper	ppm	ASTM D5185m	>330	2	4	17
Tin	ppm	ASTM D5185m	>15	<1	1	0
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	0	<1	6	13
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	59	45	3
Manganese	ppm	ASTM D5185m	0	<1	1	0
Magnesium	ppm	ASTM D5185m	1010	967	554	704
Calcium	ppm	ASTM D5185m	1070	1229	2146	1294
Phosphorus	ppm	ASTM D5185m	1150	1039	1025	719
Zinc	ppm	ASTM D5185m	1270	1302	1281	809
Sulfur	ppm	ASTM D5185m	2060	3255	3723	---

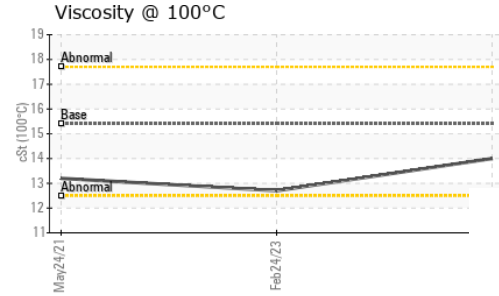
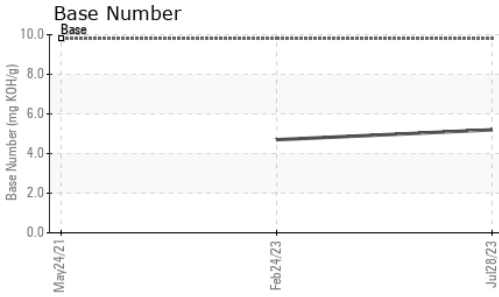
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	10	6
Sodium	ppm	ASTM D5185m		6	9	8
Potassium	ppm	ASTM D5185m	>20	4	7	8
Chlorine	ppm	ASTM D5185m		---	---	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.8	0.76
Nitration	Abs/cm	*ASTM D7624	>20	11.2	14.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	30.6	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.1	23.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.2	4.7	---



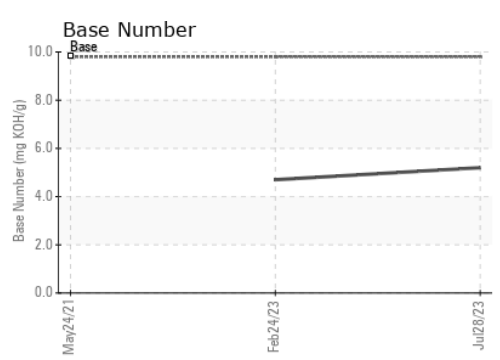
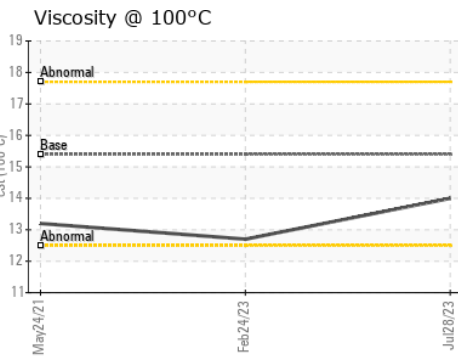
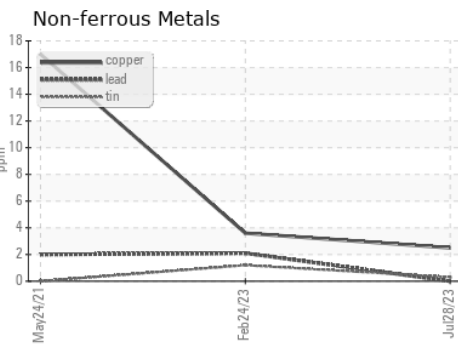
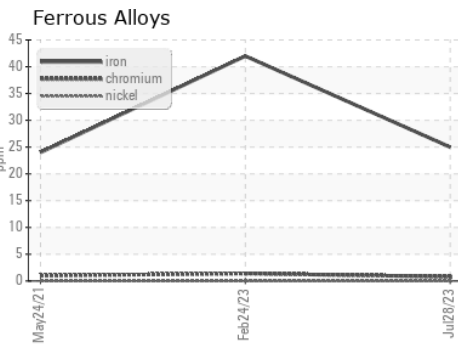
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	12.7	13.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0004376 **Received** : 22 Sep 2023
Lab Number : 05958996 **Diagnosed** : 25 Sep 2023
Unique Number : 10660209 **Diagnostician** : Wes Davis
Test Package : FLEET

SCHMIDT TRANSPORTATION - BARTO
 108 E Bay Road
 Plattsmouth, NE
 US 68048
 Contact: Service Manager

Certificate L2367
 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)

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F: