



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**BLUE BIRD 112**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0905955</b>	WC0905964	WC0792658
Sample Date		Client Info		<b>15 Jul 2024</b>	05 Apr 2024	21 Aug 2023
Machine Age	mls	Client Info		<b>145108</b>	139364	124193
Oil Age	mls	Client Info		<b>0</b>	5000	0
Filter Age	mls	Client Info		<b>0</b>	5000	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>27</b>	16	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	1
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	5	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

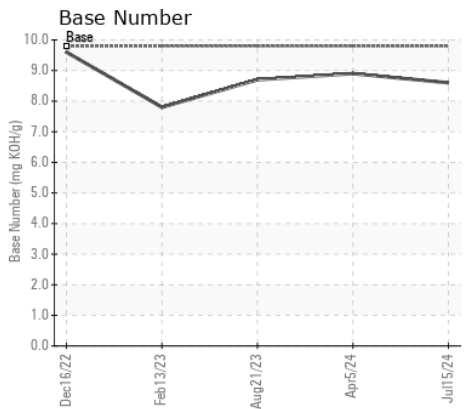
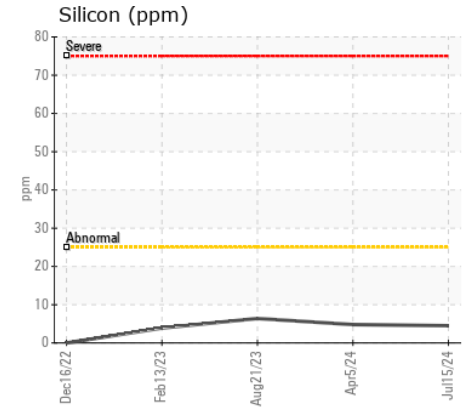
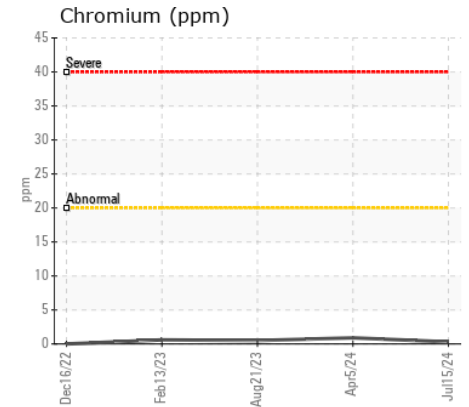
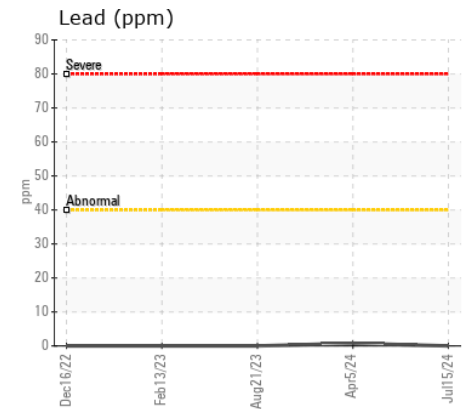
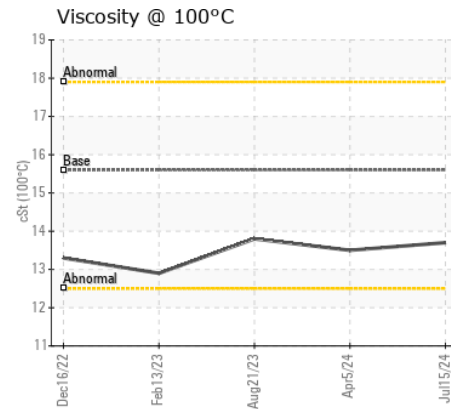
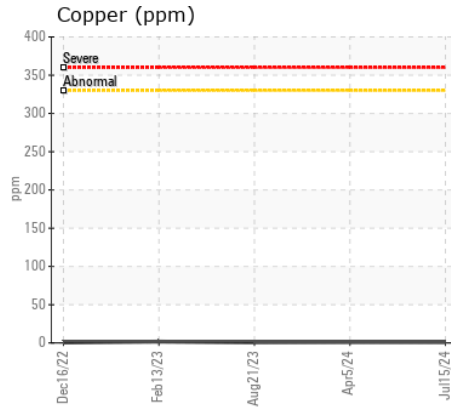
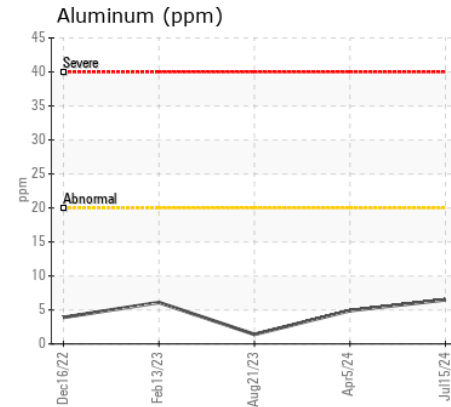
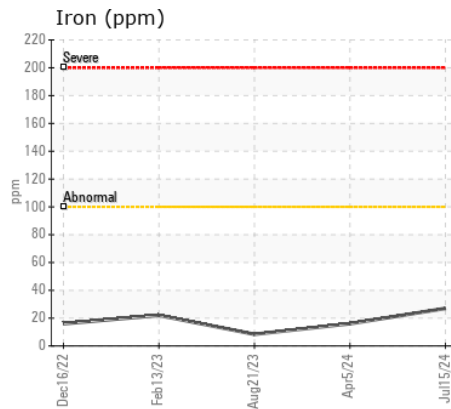
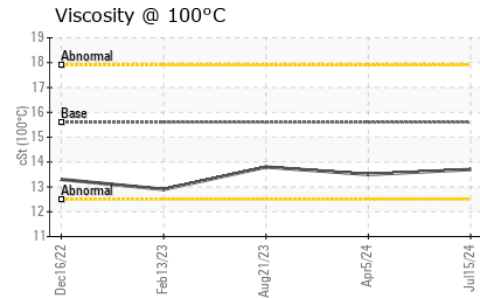
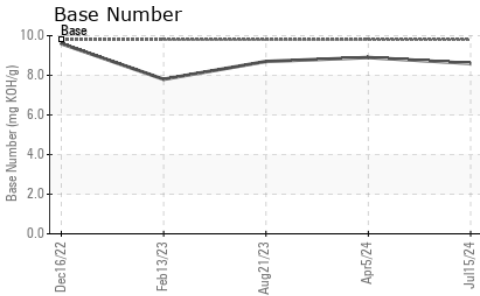
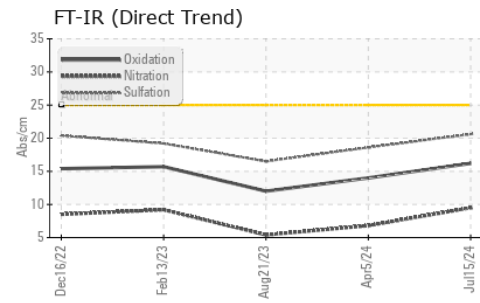
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	6	5
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.1</b>	0.5	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	6.8	5.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.6</b>	18.6	16.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	2	4
Boron	ppm	ASTM D5185m		<b>4</b>	2	27
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>55</b>	61	74
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>880</b>	977	1056
Calcium	ppm	ASTM D5185m		<b>1036</b>	1137	1316
Phosphorus	ppm	ASTM D5185m		<b>1014</b>	1070	1214
Zinc	ppm	ASTM D5185m		<b>1212</b>	1278	1393
Sulfur	ppm	ASTM D5185m		<b>3348</b>	3404	3874
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.2</b>	14.0	12.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	8.9	8.7
Visc @ 100°C	cSt	ASTM D445	15.6	<b>13.7</b>	13.5	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0905955 **Received** : 17 Jul 2024  
**Lab Number** : 06239673 **Tested** : 18 Jul 2024  
**Unique Number** : 11128507 **Diagnosed** : 18 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**WAYNE CO SCHOOL BUS GARAGE**  
 1603 SALEM CHURCH RD  
 GOLDSBORO, NC  
 US 27530  
 Contact: BRANDON BRIGGS  
 brandonbriggs@wcps.org  
 T:  
 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)