



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**034**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON UHP 10W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DE0000492</b>	DE0000509	PC0032518
Sample Date		Client Info		<b>07 Jun 2024</b>	15 Nov 2023	06 Jul 2022
Machine Age	mls	Client Info		<b>267942</b>	253287	218855
Oil Age	mls	Client Info		<b>267942</b>	16087	8000
Filter Age	mls	Client Info		<b>267942</b>	16087	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>17</b>	16	11
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>9</b>	9	4
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
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.

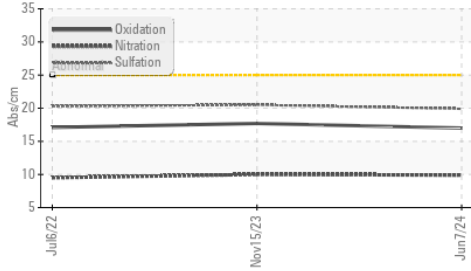
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	4	7
Potassium	ppm	ASTM D5185m	>20	<b>21</b>	32	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	10.0	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	20.5	20.3
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

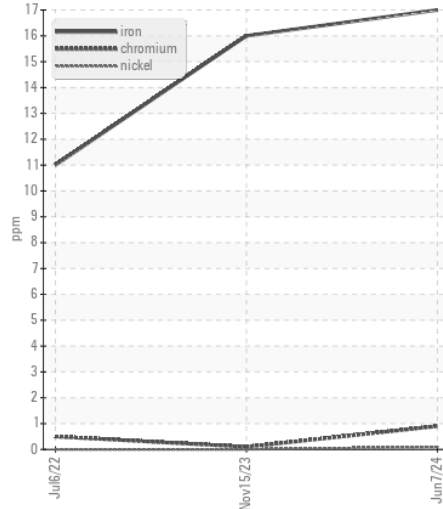
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	<1
Boron	ppm	ASTM D5185m	2	<b>4</b>	<1	15
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	61	59
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>998</b>	918	915
Calcium	ppm	ASTM D5185m	1070	<b>1113</b>	1050	1218
Phosphorus	ppm	ASTM D5185m	1150	<b>1178</b>	949	1021
Zinc	ppm	ASTM D5185m	1270	<b>1301</b>	1169	1213
Sulfur	ppm	ASTM D5185m	2060	<b>3186</b>	3277	3849
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.0</b>	17.7	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.0</b>	7.1	9.4
Visc @ 100°C	cSt	ASTM D445	15.52	<b>13.4</b>	13.6	13.7

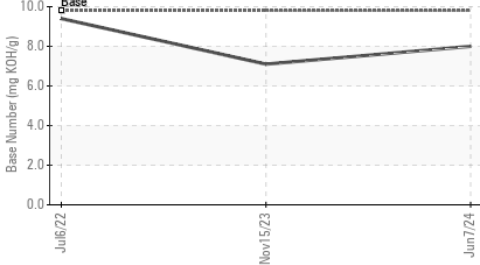
**FT-IR (Direct Trend)**



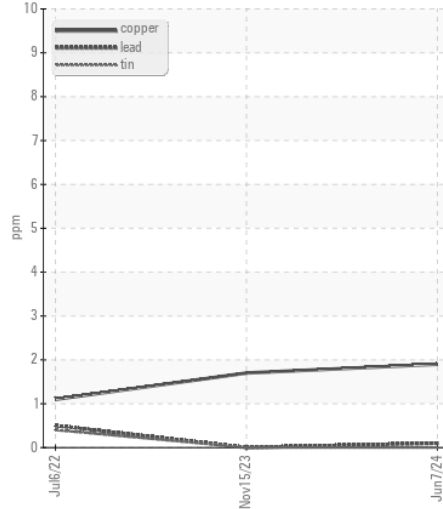
**Ferrous Alloys**



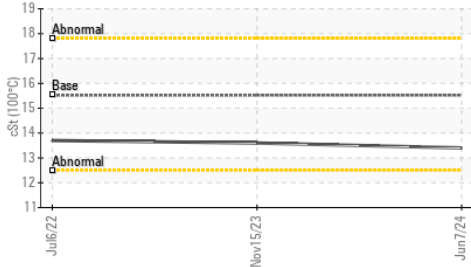
**Base Number**



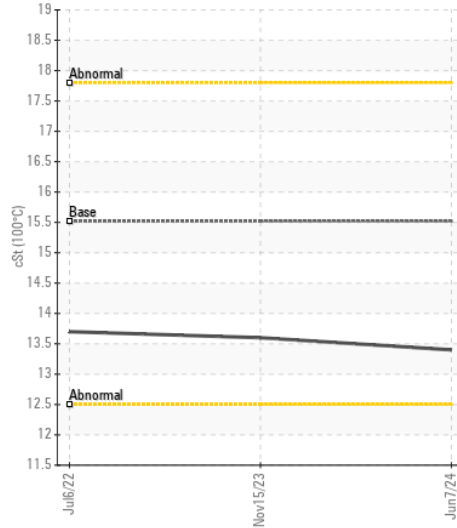
**Non-ferrous Metals**



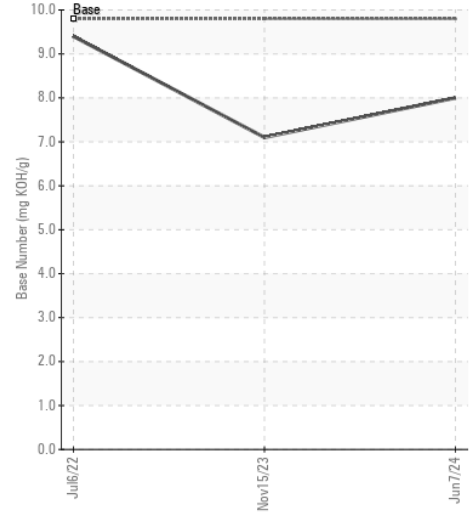
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : DE0000492

**Lab Number** : 06224186

**Unique Number** : 11102383

**Test Package** : FLEET

**Received** : 28 Jun 2024

**Tested** : 01 Jul 2024

**Diagnosed** : 01 Jul 2024 - Wes Davis

**Iroquois Bar Corp.**

155 Commerce Drive

Lacakwana, NY

US 14218

Contact: Denver Persinger

dpersinger@iroquoisbar.com

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)