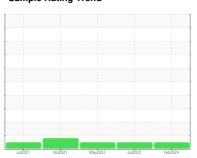


## **OIL ANALYSIS REPORT**

### Sample Rating Trend



NORMAL



# SPC-02

Component **Diesel Engine** 

PETRO CANADA DURON HP 15W40 (--- GAL)

## DIAGNOSIS

#### Recommendation

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

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### **Fluid Condition**

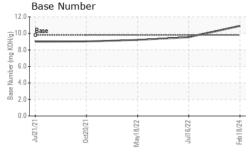
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

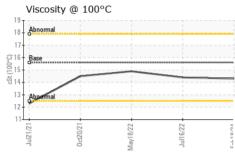
AL)		Jul2021	0ct2021	May2022 Jul2022	Feb 2024	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0118524	PCA0016746	PCA0016938
Sample Date		Client Info		18 Feb 2024	16 Jul 2022	18 May 2022
Machine Age	hrs	Client Info		7813	383	1478
Oil Age	hrs	Client Info		253	250	250
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	4	14	17
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	<1
Lead	ppm	ASTM D5185m	>40	0	1	1
Copper	ppm	ASTM D5185m	>330	<1	5	8
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Antimony	ppm	ASTM D5185m				
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		5	5	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		57	62	67
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		956	935	1076
Calcium	ppm	ASTM D5185m		1005	1019	1200
Phosphorus	ppm	ASTM D5185m		1008	977	1174
Zinc	ppm	ASTM D5185m		1236	1212	1477
Sulfur	ppm	ASTM D5185m		3034	2936	3389
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	4	3
Sodium	ppm	ASTM D5185m		<1	2	2
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.4	10.0	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	22.5	20.6
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	19.7	17.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.90	9.54	9.21



## **OIL ANALYSIS REPORT**

**GRAPHS** 

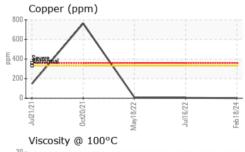


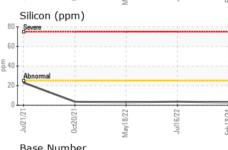


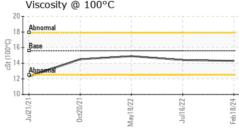
VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance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

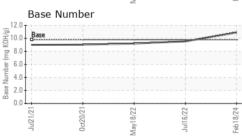
1 2012 1 1101 21						
Visc @ 100°C	cSt	ASTM D445	15.6	14.3	14.4	14.9

250	Iron (pp	m)				100 -	Lead (	ppm)			
200	Severe					80	Severe				
150	Abnormal					E 60 -	Abnormal				
50						20 -					
0-	Jul21/21+	0ct20/21-	May18/22 +	Jul16/22 +	Feb18/24	01	Jul21/21	0ct20/21-	May18/22 -	Jul16/22 -	
	Aluminu	m (ppm	)		Chromium (ppm)						
50 - 40 -	Severe					50 T 40 T	Severe				
<sub>=</sub> 30⋅						<sub>∈</sub> 30 -					











Certificate L2367

Laboratory Sample No.

: PCA0118524 Lab Number : 06098651 Unique Number : 10896881 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 23 Feb 2024 **Tested** 

: 26 Feb 2024 Diagnosed : 26 Feb 2024 - Wes Davis

SCRAP METAL SERVICES (SMS Mill Services LLC)

1500 COMMERCIAL AVE MINGO JUNCTION, OH

US 43938 Contact: STAN MANN

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

smann@scrapmetalservices.com T:

Contact/Location: STAN MANN - SCRMIN

\* - 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)

F: