

# **OIL ANALYSIS REPORT**

# MCGINN BUS COMPANY 11423

Component **Diesel Engine** 

PETRO CANADA DURON SHP 15W40 (36 QTS)

# Sample Rating Trend



### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

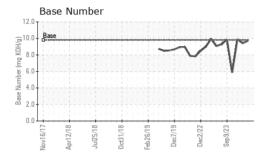
### **Fluid Condition**

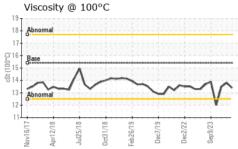
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

v2017 Apr2018 Jul2018 Oct2018 Feb2019 Occ2019 Occ2022 Sep2023									
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		PCA0090546	PCA0104735	PCA0104412			
Sample Date		Client Info		28 Mar 2024	02 Mar 2024	19 Dec 2023			
Machine Age	mls	Client Info		553911	547301	535602			
Oil Age	mls	Client Info		24000	24000	12000			
Oil Changed		Client Info		Changed	Changed	Changed			
Sample Status				NORMAL	ABNORMAL	NORMAL			
CONTAMINATIO	NC	method	limit/base	current	history1	history2			
Fuel		WC Method	>3.0	<1.0	<1.0	0.2			
Water		WC Method	>0.2	NEG	NEG	NEG			
Glycol		WC Method		NEG	NEG	NEG			
WEAR METALS		method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185m	>90	26	12	4			
Chromium	ppm	ASTM D5185m	>20	<1	<1	1			
Nickel	ppm	ASTM D5185m	>2	0	0	0			
Titanium	ppm	ASTM D5185m	>2	0	0	0			
Silver	ppm	ASTM D5185m	>2	0	0	0			
Aluminum	ppm	ASTM D5185m	>20	4	2	2			
Lead	ppm	ASTM D5185m	>40	3	7	0			
Copper	ppm	ASTM D5185m	>330	2	<u>\$\times\$ 257</u>	0			
Tin	ppm	ASTM D5185m	>15	0	0	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	2	4	3			
Barium	ppm	ASTM D5185m	0	0	0	4			
Molybdenum	ppm	ASTM D5185m	60	57	60	62			
Manganese	ppm	ASTM D5185m	0	<1	<1	0			
Magnesium	ppm	ASTM D5185m	1010	959	959	940			
Calcium	ppm	ASTM D5185m	1070	1071	1065	1084			
Phosphorus	ppm	ASTM D5185m	1150	963	953	1072			
Zinc	ppm	ASTM D5185m	1270	1204	1195	1245			
Sulfur	ppm	ASTM D5185m	2060	3344	3155	3516			
CONTAMINANT	S	method	limit/base	current	history1	history2			
	ppm	ASTM D5185m	>25	5	22	32			
Sodium	ppm	ASTM D5185m		4	27	11			
Potassium	ppm	ASTM D5185m	>20	0	15	9			
INFRA-RED		method	limit/base	current	history1	history2			
Soot %	%	*ASTM D7844	>6	0.6	0.4	0.3			
Nitration	Abs/cm	*ASTM D7624	>20	10.0	9.8	7.9			
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	21.5	19.7			
FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2			
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	19.0	15.6			
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.71	9.41	9.89			



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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 PROP	EHILO	method			riistory i	History
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.8	13.5

VISC	@ 10	0-0		CSI	AS	DIVI D4	15.4	1,	5.4		13	.0		13.	5
GF	RAPI	HS													
Iro	n (pp	m)						Lea	ıd (pp	m)					
200 Sev	ere							80 Seve	re						
								_ 60-							
150 - Abr	normal							40 Abn	ormal						
50-							_/_	20							
0 1	81/3	118	18	9/19	Dec7/19	1727	Sep9/23	0 1	81/3	81/8	18	61/8	Dec7/19	1/22	Sep 9/23
Nov16/17	Apr12/18	Jul25/18	Oct31/18	Feb26/19	Dec	Dec2/22	Sep	Nov16/17	Apr12/18	Jul25/18	Oct31/18	Feb26/19	Dec	Dec2/22	Seb
Alu	ıminu	m (pp	om)					Chi 50 <b>⊤</b>	omiu	m (pp	om)				
Sev	ere							40 Seve	re		1177				
30-								E 30							
30 - Abr	normal							20 Abn	ormal						
10-							~	10							
0 171/9	Apr12/18	Jul25/18	Oct31/18	Feb26/19	Dec7/19	Dec2/22	Sep9/23	0 11/9	Apr12/18	Jul25/18	Oct31/18	Feb26/19	Dec7/19	Dec2/22	Sep 9/23
Nov16/17	April	Jul	Oct3	Feb2	Dec	Dec	Sep	Nov16/17	April	Jul	Oct3	Feb2	Dec	Dec	Sep
400	pper	(ppm	)					Silio 80 T Seve	con (	opm)					
300 - 3	ere Tormal							80 Seve	10						
200							1	E 40-							
							1	Abn	ormal						
100								20					~_		
Nov16/17	Apr12/18	Jul25/18	Oct31/18	-eb26/19	Dec7/19	Dec2/22	Sep9/23	Nov16/17	Apr12/18	Jul25/18	0ct31/18	Feb26/19	Dec7/19 -	Dec2/22 -	Sep9/23
Nov1	Aprl	Jul	Oct3	Feb2	Dec	Dec	Sep	Nov1	Apr1	Jul	Oct3	Feb2	Dec	Dec	Sep
Vis	cosity	@ 10	00°C					12.0	se Nu	mber					
	normal							Base 10.0 - Base							017
16 - Bas 14 - Abr	ie		-					Base Number (mg KOH/gg) 8.0 - 6.0 - 4.0 - 4.0 - 4.0							V
14-	normal	$\wedge$		~	~	~	1	4.0							
								% 2.0-							
12-						1 1	THE PERSON	0.0	11 61		11.5	110		1 1 1 1	113 1111
	Apr12/18	Jul25/18	0ct31/18	Feb26/19	Dec7/19	Dec2/22 -	Sep9/23	Nov16/17	Apr12/18	Jul25/18	0ct31/18	Feb26/19	Dec7/19	Dec2/22 -	Sep9/23





Laboratory Sample No.

Lab Number : 06132250 Unique Number : 10951715 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0090546

Received Tested Diagnosed

: 28 Mar 2024 : 29 Mar 2024

: 29 Mar 2024 - Wes Davis

**MCGINN BUS CO** 36 ALLEY ST LYNN, MA US 01902 Contact: TOM SCHULZ

tommcginnbus@aol.com

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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