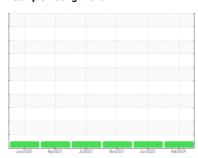


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 101102

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (40)

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

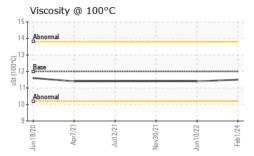
Fluid Condition

The condition of the oil is acceptable for the time in service.

		Jun2020	Apr2021 Jul2021	Nov2021 Jun2022	Feb 2024	
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0108245	GFL0047681	GFL0024271
Sample Date		Client Info		01 Feb 2024	10 Jun 2022	30 Nov 2021
Machine Age	hrs	Client Info		9471	6127	5522
Oil Age	hrs	Client Info		551	600	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINA	ΓΙΟΝ	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 METAI	_S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	8	5	10
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)		5	4	10
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)		3	7	14
Tin	ppm	ASTM D5185(m)	>15	<1	<1	1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	1	1	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	59	59	59
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	969	1007	1041
Calcium	ppm	ASTM D5185(m)	1050	1075	1057	1044
Phosphorus	ppm	ASTM D5185(m)	995	999	1060	1035
Zinc	ppm	ASTM D5185(m)		1190	1237	1223
Sulfur	ppm	ASTM D5185(m)	2600	2604	2621	2418
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Sodium	ppm	ASTM D5185(m)		1	1	2
Potassium	ppm	ASTM D5185(m)	>20	5	9	15
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.1	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.5	6.0	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	20.5	20.1



OIL ANALYSIS REPORT



FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	14.1	15.4
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.5	11.4	11.4

V	/isc @ 100°0	0	cSt .	ASTM D7279(m)	12.00		11.5		11.4		11.4	
	GRAPHS	;										
250	Iron (ppm)	100 Le	Lead (ppm)									
200	Severe					1.1	evere					
150		1				60 -						1
돌 100·	Abnormal	į	1	1		E	bnormal					
50						20-						
0.						0						
	Jun18/20	Jul12/21	Nov30/21	Jun10/22	Feb1/24	Jun18/20		Apr7/21-	Jul12/21.	Nov30/21	Jun10/22	Feb1/24
	Aluminum		N	η̈́	Œ		hromi			N	η	ш.
50	Aldinindin	Chromium (ppm)										
40	Severe					40 - 8	evere					-
ag 30 -	-					30 - I						
20	Abnormal	 		1	-	20 -	bnormal		1		! !	1
10		~				10-						
0 -	In 18/20			122+	724	,720 		Apr7/21	2/21	12/0	1/22	/24
	Jun18/20	Jul12/21	Nov30/21	Jun10/22	Feb1/24	Jun18/20		Apr	Jul12/21	Nov30/21	Jun10/22	Feb1/24
400	Copper (pp		Silicon (ppm) 80 T Severe									
350	Severe Abnormal					70 -	evele					
300 ·				 		50 -						
돌 200 · 150 ·						E 40 - A	hnormal					
100						20-	bnormal					
50·						10					-	
	Jun18/20	Jul12/21	Nov30/21	Jun10/22	Feb 1/24 -	Jun18/20		Apr7/21-	Jul12/21-	Nov30/21	Jun10/22	Feb1/24
	Viscosity @		~	ラ			oot %)		2	7	
15-	T					6.0	evere					
14-	Abnormal					5.0 - 3						
(100°C)	Base					- 0	bnormal					-
र्छ 11∙	Abnormal					2.0						
10	Contonia			1 1		1.0 -						
9.	Jun18/20 +	Jul12/21+	Nov30/21+	Jun10/22 +	Feb1/24	0.0		Apr7/21-	Jul12/21-	Nov30/21+	Jun10/22 -	Feb1/24
	Jun1	Jul	Nov3	Jun1	귤	Jun18/20		Ap	Jul	Nov	Jun1	윤



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02613903 Unique Number : 5722998

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 355 - Saskatoon : GFL0108245

Tested Test Package : MOB 1

Received : 07 Feb 2024 : 07 Feb 2024 Diagnosed

: 07 Feb 2024 - Wes Davis

100 Cory Road Saskatoon, SK CA S7K 3J7 Contact: Ryan Polichuk rpolichuk@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

T: (306)244-9500