

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



## Machine Id 742004

Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (--- GAL)

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

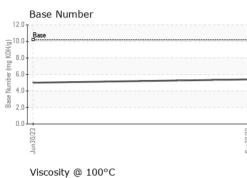
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

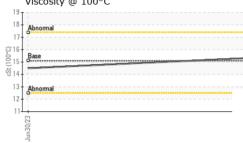
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0084667	GFL0082268	
Sample Date		Client Info		29 Sep 2023	30 Jun 2023	
Machine Age	mls	Client Info		0	43547	
Oil Age	mls	Client Info		0	43547	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	7	26	
Chromium	ppm	ASTM D5185m	>4	<1	2	
Nickel	ppm	ASTM D5185m	>2	<1	<1	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>9	0	4	
Lead	ppm	ASTM D5185m	>30	1	<1	
Copper	ppm	ASTM D5185m	>35	1	<1	
Tin	ppm	ASTM D5185m	>4	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	11	14	
Barium	ppm	ASTM D5185m	5	0	0	
Molybdenum	ppm	ASTM D5185m	50	58	84	
Manganese	ppm	ASTM D5185m	0	<1	<1	
Magnesium	ppm	ASTM D5185m	560	642	679	
Calcium	ppm	ASTM D5185m	1510	1797	1661	
Phosphorus	ppm	ASTM D5185m	780	759	789	
Zinc	ppm	ASTM D5185m	870	1063	1020	
Sulfur	ppm	ASTM D5185m	2040	2625	3433	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	4	9	
Sodium	ppm	ASTM D5185m		8	9	
Potassium	ppm	ASTM D5185m	>20	0	3	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0.1	
Nitration	Abs/cm	*ASTM D7624	>20	11.1	10.4	
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	22.0	
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	18.1	
Base Number (BN)	mg KOH/g	ASTM D2896		5.4	5.0	
Dasc Number (DN)			10.2	J. <del>T</del>	0.0	



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VISUAL





	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
/23	Appearance	scalar	*Visual	NORML	NORML	NORML	
Sep 29/23	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water		*Visual	>0.1	NEG	NEG	
0°C		scalar		>0.1			
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPE	RTIES	method				history2
	Visc @ 100°C	cSt	ASTM D445	15.1	15.3	14.5	
	GRAPHS						
	Ferrous Alloys						
	<sup>30</sup> T						
	25 - Chromium						
	20						
	<u>a</u> 15-						
	10						
	E						
	5-						
	Jun30/22			Sep 29/23			
	2			S			
	Non-ferrous Meta	s					
	copper						
	8 - sessesses lead						
	6						
	특립 4						
	2						
				1/23			
	Jun30/22			Sep 29/23			
	Viscosity @ 100°C	2					
	<sup>19</sup> T	-		12	Base Number		
	18 - Abnormal				Base		
	17-			10. ©	.0 + 9		
	G-16-			NON N	.0		
	5 16 0 15 15 14			Base Number (mg KOH/g) .9	.0		
	ऌँ <sub>14</sub>			dumbe			
	13 - Abnormal			N aseg	.0+		
	12			2.	.0 0 0 0		
	11				.0		
	Jun 30/23			Sep 29/23	Jun30/23		Sep 29/23
	Juni			Sep	Jun		Sept
Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report,	: 05966843 : 10673394 : FLEET	Received Diagnose Diagnost	d : 02 ( ed : 03 ( iician : We	Oct 2023 Oct 2023 s Davis	3 GFL Envi	1113 Contac	Peoria HC Disposal N. Swords Ave. West Peoria, IL US 61604 t: Corey Dozard ard@gflenv.com
* - Denotes test methods that a Statements of conformity to spec	are outside of the ISO 1	17025 sco	pe of accred	litation.	(JCGM 106:2012)		T: F:

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