

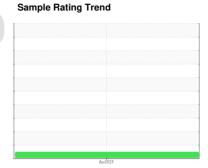
# **OIL ANALYSIS REPORT**



**{UNASSIGNED}** 9156

**Front Natural Gas Engine** 

PETRO CANADA DURON GEO LD 15W40 (60 Oz)





## 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

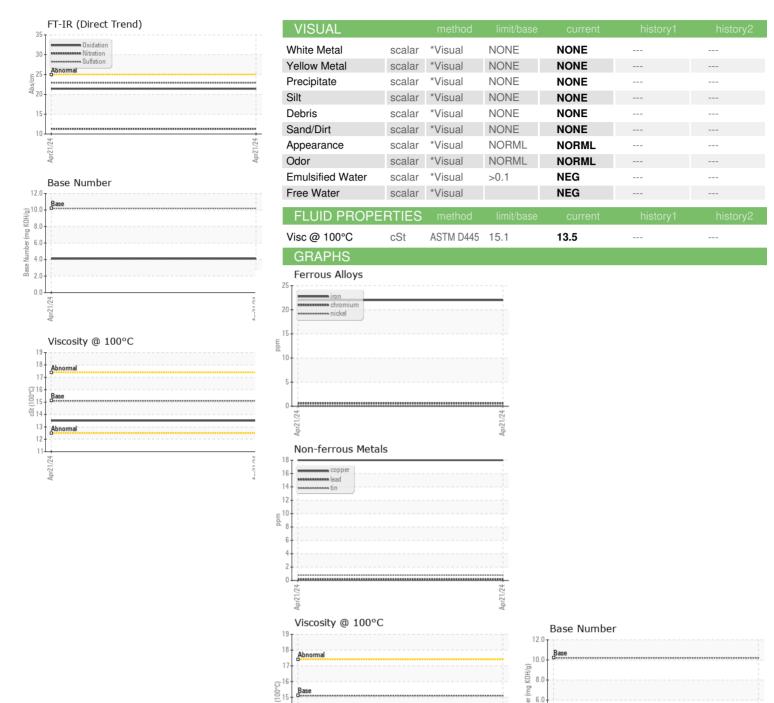
## **Fluid Condition**

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

SAMPLE INFORMATION method   Imilibase   current   history1   history2	GEO LD 15W40	(00 02)					
Sample Date   Client Info   21 Apr 2024	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age   hrs   Client Info   0	Sample Number		Client Info		GFL0109669		
Machine Age			Client Info		21 Apr 2024		
Contample   Client Info   N/A   NORMAL   CONTAMINATION   Method   Ilmil/base   current   history1   history2   history2   current   history2   history2   current   history2   history2   current   history2   history2   current	Machine Age	hrs	Client Info		-		
CONTAMINATION	Oil Age	hrs	Client Info		0		
CONTAMINATION	Oil Changed		Client Info		N/A		
Water         WC Method         >0.1         NEG            WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >50         22             Chromium         ppm         ASTM D5185m         >4         <1             Nickel         ppm         ASTM D5185m         >2         0             Silver         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >9         2             Lead         ppm         ASTM D5185m         >9         2             Lead         ppm         ASTM D5185m         >30         <1             Copper         ppm         ASTM D5185m         >3         18             Copper         ppm         ASTM D5185m         0         18             Cadmium         ppm         ASTM D5185m         50         18					NORMAL		
WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >50         22             Chromium         ppm         ASTM D5185m         >4         <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
Chromium	Nater		WC Method	>0.1	NEG		
ASTM D5185m   Square   Squar	WEAR METAL	.S	method	limit/base	current	history1	history2
Silver	ron	ppm	ASTM D5185m	>50	22		
Sirker	Chromium		ASTM D5185m	>4	<1		
ASTM D5185m   Compared   Compar	Nickel			>2	0		
Saliver	itanium						
Ast   Ast				>3			
Access	-						
Copper							
Act							
Anadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         50         18             Barium         ppm         ASTM D5185m         50         52             Molybdenum         ppm         ASTM D5185m         50         52             Manganese         ppm         ASTM D5185m         560         593             Magnesium         ppm         ASTM D5185m         560         593             Phosphorus         ppm         ASTM D5185m         780         725             Phosphorus         ppm         ASTM D5185m         870         1006             Sulfur         ppm         ASTM D5185m         >+100         10             CONTAMINANTS         method         limit/base         current         hi					-		
ADDITIVES				7			
ADDITIVES							
Soron   ppm   ASTM D5185m   50   18		рріп		11			
Sarium							
Molybdenum         ppm         ASTM D5185m         50         52             Manganese         ppm         ASTM D5185m         0         2             Magnesium         ppm         ASTM D5185m         560         593             Calcium         ppm         ASTM D5185m         1510         1659             Phosphorus         ppm         ASTM D5185m         780         725             Zinc         ppm         ASTM D5185m         870         1006             Sulfur         ppm         ASTM D5185m         2040         2755             CONTAMINANTS         method         limit/base         current         history1         history2           Solicon         ppm         ASTM D5185m         >+100         10             Footassium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             Soot %         *ASTM D7844         0 </td <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td>					_		
Manganese         ppm         ASTM D5185m         0         2             Magnesium         ppm         ASTM D5185m         560         593             Calcium         ppm         ASTM D5185m         1510         1659             Phosphorus         ppm         ASTM D5185m         780         725             Zinc         ppm         ASTM D5185m         870         1006             Sulfur         ppm         ASTM D5185m         2040         2755             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         10             Godium         ppm         ASTM D5185m         5             Potassium         ppm         ASTM D5185m         >20         <1					-		
Magnesium         ppm         ASTM D5185m         560         593             Calcium         ppm         ASTM D5185m         1510         1659             Phosphorus         ppm         ASTM D5185m         780         725             Zinc         ppm         ASTM D5185m         870         1006             Sulfur         ppm         ASTM D5185m         2040         2755             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         10             Potassium         ppm         ASTM D5185m         5             Potassium         ppm         ASTM D5185m         >20         <1	•				-		
Description	Manganese	ppm		0	2		
Phosphorus         ppm         ASTM D5185m         780         725             Zinc         ppm         ASTM D5185m         870         1006             Sulfur         ppm         ASTM D5185m         2040         2755             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         10             Sodium         ppm         ASTM D5185m         5             Potassium         ppm         ASTM D5185m         >20         <1	Magnesium	ppm	ASTM D5185m	560	593		
Zinc	Calcium	ppm	ASTM D5185m	1510	1659		
Sulfur         ppm         ASTM D5185m         2040         2755             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         10             Sodium         ppm         ASTM D5185m         5              Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Sulfation         Abs/cm         *ASTM D7624         >20         11.3             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         21.4	Phosphorus	ppm	ASTM D5185m	780	725		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         10             Sodium         ppm         ASTM D5185m         5             Potassium         ppm         ASTM D5185m         >20         <1	Zinc	ppm	ASTM D5185m	870	1006		
Solition   ppm   ASTM D5185m   >+100   10	Sulfur	ppm	ASTM D5185m	2040	2755		
Sodium	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         11.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Dxidation         Abs/.1mm         *ASTM D7414         >25         21.4	Silicon	ppm	ASTM D5185m	>+100	10		
Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         11.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Dxidation         Abs/.1mm         *ASTM D7414         >25         21.4	Sodium	ppm	ASTM D5185m		5		
Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         11.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         21.4	Potassium	ppm	ASTM D5185m	>20	<1		
Nitration         Abs/cm         *ASTM D7624         >20         11.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         21.4	INFRA-RED		method	limit/base	current	history1	history2
Nitration         Abs/cm         *ASTM D7624         >20         11.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         21.4	Soot %	%	*ASTM D7844		0		
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Dxidation         Abs/.1mm         *ASTM D7414         >25         21.4				>20			
Dxidation         Abs/.1mm         *ASTM D7414         >25         21.4							
	FLUID DEGRAI	OITAC	method	limit/base	current	history1	history2
							,



# **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No.

: GFL0109669 Lab Number : 06155624 Unique Number : 10991047

₹ 14 13 Abnorma

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Test Package : FLEET

Received : 22 Apr 2024 **Tested** : 23 Apr 2024 Diagnosed

: 23 Apr 2024 - Wes Davis

0.0

2810 Contentnea Road S Wilson, NC US 27893-8501 Contact: SPENCER LIGGON

GFL Environmental - 005 - Wilson/Tri-East(CNG)

spencer.liggon@gflenv.com T: (800)207-6618

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)