

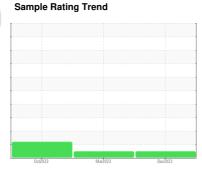
OIL ANALYSIS REPORT



G.LOPES CONSTRUCTION INC./Off-Road SL55

Component **Diesel Engine**

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





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

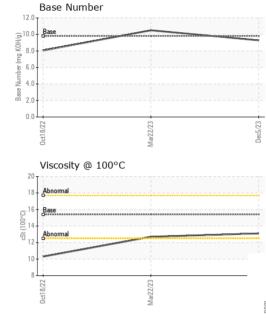
Fluid Condition

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

			2022	Mar2023 Dec203			
SAMPLE INFO	ORMATION .	method	limit/base	current	history1	history2	
Sample Number		Client Info		PCA0109720	PCA0090636	PCA0078212	
Sample Date		Client Info		05 Dec 2023	22 Mar 2023	18 Oct 2022	
Machine Age	hrs	Client Info		1069	690	514	
Oil Age	hrs	Client Info		1069	690	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	NORMAL	MARGINAL	
CONTAMINA	ATION	method	limit/base	current	history1	history2	
Fuel		WC Method	>5	<1.0	<1.0	▲ 3.8	
Water		WC Method	>0.2	NEG	NEG	NEG	
Glycol		WC Method		NEG	NEG	NEG	
WEAR META	ALS	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	6	6	21	
Chromium	ppm		>20	<1	<1	1	
Nickel	ppm	ASTM D5185m	>2	<1	0	0	
Titanium	ppm	ASTM D5185m		<1	0	0	
Silver	ppm	ASTM D5185m	>2	0	0	0	
Aluminum	ppm	ASTM D5185m	>25	2	1	3	
Lead	ppm	ASTM D5185m	>40	0	0	<1	
Copper			>330	3	6	42	
Tin	ppm	ASTM D5185m	>15	0	<1	<1	
Vanadium	ppm	ASTM D5185m	>10	0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES	ррпп		limit/base				
		method		current	history1	history2	
Boron	ppm	ASTM D5185m	0	6	9	35	
Barium	ppm	ASTM D5185m		0	0	2	
Molybdenum	ppm	ASTM D5185m	60	57	54	43	
Manganese	ppm	ASTM D5185m		<1	<1	2	
Magnesium	ppm	ASTM D5185m	1010	956	837	518	
Calcium	ppm	ASTM D5185m	1070	1040	1078	1893	
Phosphorus	ppm	ASTM D5185m	1150	1039	926	846	
Zinc	ppm	ASTM D5185m	1270	1276	1127	1063	
Sulfur	ppm	ASTM D5185m	2060	3027	2698	3550	
CONTAMINA	ANTS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	4	3	9	
Sodium	ppm	ASTM D5185m		2	0	4	
Potassium	ppm	ASTM D5185m	>20	1	1	0	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2	
Nitration	Abs/cm	*ASTM D7624	>20	8.3	6.8	11.6	
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	18.7	24.9	
FLUID DEGRADATION method limit/base current history1 history2							
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	15.0	24.6	
Base Number (BN	N) mg KOH/g	ASTM D2896	9.8	9.28	10.50	8.05	
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VISUAL		method	limit/base	current	history1	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 NORML	NONE	NONE
Appearance	scalar	*Visual	NORML		NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
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 D445	15.4	13.1	12.7	<u>10.3</u>

-								
	GRAPHS							
250	Iron (ppm)			Lead (ppm)				
200	Smiore			Severe				
E 150	1			E 60				
E 150	Abnormal		-	Abnormal		-		
50				20				
(Oct18/22	2/23	Dec5/23	8/22 1	2/23	Dec5/23		
	0ct1	Mar22/23	Dec	Oct18/22	Mar22/23	Dec		
50	Aluminum (ppm)			Chromium (ppm)				
4(Source			Severe				
E 30	Abnormal			Abnormal				
E 20)			20 - Abnormal		-		
10				10				
	0ct18/22	Mar22/23	Dec5/23	Oct18/22	Mar22/23 -	Dec5/23 +		
		Mar2	Dec			Dec		
400	Copper (ppm)			Silicon (ppm)			
300	Severe			60-				
틆 200				E 40				
100				Abnormal 20				
(0				
	0ct18/22	Mar22/23 -	Dec5/23 -	Oct18/22	Mar22/23 -	Dec5/23 -		
		Mar	De			De		
20	Viscosity @ 100°C			Base Number	er 			
18	Abnormal	- 		Base Mumber (mg KOH/0) 8.00				
(100°C)	Base			B 8.0				
₹ 12	Abnormal			Vamp 4.0				
10				2.0				
	Oct18/22	Mar22/23 -	Dec5/23	Oct18/22	Mar22/23 -	Dec5/23 -		
	00	Mar	De	00	Mar	De		





Laboratory Sample No. Lab Number

Unique Number : 10777755

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 06027964

: PCA0109720

Received Diagnosed

: 07 Dec 2023 : 08 Dec 2023 Diagnostician : Wes Davis

Test Package : MOB 2 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)

G LOPES CONSTRUCTION

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