

OIL ANALYSIS REPORT

Sample Rating Trend





{UNASSIGNED} 834020

Component **Natural Gas Engine**

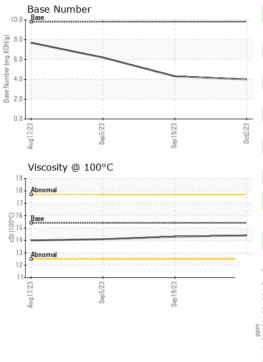
Fluid

PETRO CANADA DURON SHP 15W40 (8 GAL)

DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		GFL0094343	GFL0094304	GFL0091433
Resample at the next service interval to monitor.	Sample Date		Client Info		02 Oct 2023	19 Sep 2023	05 Sep 2023
Wear	Machine Age	hrs	Client Info		599	492	352
Metal levels are typical for a new component	Oil Age	hrs	Client Info		599	492	352
breaking in.	Oil Changed		Client Info		Changed	Not Changd	Not Changd
Contamination	Sample Status				NORMAL	NORMAL	NORMAL
There is no indication of any contamination in the oil.	WEAR METAL	S	method	limit/base	current	history1	history2
Fluid Condition	Iron	ppm	ASTM D5185m	>50	41	37	36
The BN result indicates that there is suitable	Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	<1
	Aluminum	ppm	ASTM D5185m	>9	3	0	0
	Lead	ppm	ASTM D5185m		1	1	1
	Copper	ppm	ASTM D5185m	>35	18	17	16
	Tin	ppm	ASTM D5185m	>4	1	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	<1
	Cadmium	ppm	ASTM D5185m		0	<1	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	5	8	15
	Barium	ppm	ASTM D5185m	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	60	56	50	50
	Manganese	ppm	ASTM D5185m	0	15	14	14
	Magnesium	ppm	ASTM D5185m	1010	899	809	913
	Calcium	ppm	ASTM D5185m	1070	1374	1273	1416
	Phosphorus	ppm	ASTM D5185m	1150	704	630	739
	Zinc	ppm	ASTM D5185m	1270	977	876	950
	Sulfur	ppm	ASTM D5185m	2060	2222	2576	2944
	CONTAMINAN	ITS	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185m	>+100	39	36	36
	Sodium	ppm	ASTM D5185m		6	4	4
	Potassium	ppm	ASTM D5185m	>20	5	2	4
	INFRA-RED		method	limit/base	current	history1	history2
	Soot %	%	*ASTM D7844		0	0	0
	Nitration	Abs/cm	*ASTM D7624	>20	12.2	11.5	10.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	21.0	20.0
	FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	22.3	20.3	19.1
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	4.0	4.3	6.2



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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	NONE	NONE	
C (2) B [ep 1 3/23 0ct2/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
0	Ö	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
		Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG	
		Free Water	scalar	*Visual		NEG	NEG	NEG	
		FLUID PROPE	ERTIES	method	limit/base	current	history1	history2	
		Visc @ 100°C	cSt	ASTM D445	15.4	14.4	14.3	14.1	
		GRAPHS							
	1	Ferrous Alloys							
00	- c7/c	40 - iron							
Con 1 (c 7/c I dae	35 - nickel							
		30							
		E ²⁵							
		15							
		10-							
		5-							
		(23							
		Aug 17/23 Sep 5/23		Sep 19/23	0ct2/23				
		Non-ferrous Meta	als						
		¹⁸							
		16 - copper							
		14 tin							
				1					
		E ¹⁰							
		6							
		4							
		Aug17/23 Sep5/23		Sep19/23 .	0ct2/23				
		Aug 1		Sep1	0				
		Viscosity @ 100°	С			Base Number			
		18 - Abnormal				Base			
		17-			(B/HC	/			
		O Base			₽ 6.0 ·				
		016 0015 5015 7514			nber (
					(b),0,0 6,0,0 0,0 Kmper 4,0-				
		13 Abnormal			^{2.0}				
		11			0.0				
				9/23 -		7/23	Sep5/23 -		
		Aug 17/23 Sep 5/23		Sep 19/23	Oct	Aug17/23	Sep5/23 Sep19/23		
	Laboratory Sample No. Lab Number Unique Number	: 05968571 Diagnosed : 04 Oo r : 10675122 Diagnostician : Wes			Oct 2023 Oct 2023	GFL Env	vironmental - 010 - Stockbrid 1280 Rum Creek Parkw Stockbridge, 0 US 302 Contact: JOSHUA TINKE		
tificate L2367	Test Package		gee.		Davio		Contact: JO		

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Submitted By: JOSHUA TINKER

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