

OIL ANALYSIS REPORT

Sample Rating Trend

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Component Diesel Engine

PETRO CANADA DURON SHP E6 10W40 (--- LTR)

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

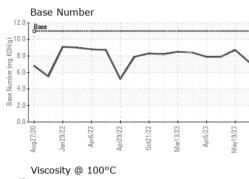
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

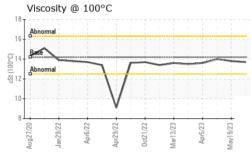
SAMPLE INFORM	JATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0089511	GFL0067906	GFL0067890
Sample Date		Client Info		01 Sep 2023	19 May 2023	26 Apr 2023
Machine Age	hrs	Client Info		12177	98624	98624
Oil Age	hrs	Client Info		651	98624	98624
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	8	4	3
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	0	<1
Lead	ppm	ASTM D5185m	>45	3	<1	0
Copper	ppm	ASTM D5185m	>85	<1	<1	0
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	6	7	8
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	49	65	62	65
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	930	1008	1000	1077
Calcium	ppm	ASTM D5185m	1350	1123	1153	1192
Phosphorus	ppm	ASTM D5185m	810	1044	1052	1129
Zinc						
	ppm	ASTM D5185m	930	1301	1331	1385
Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	930 2500	1301 3457		1385 3692
	ppm			3457	1331	
Sulfur	ppm	ASTM D5185m	2500 limit/base	3457	1331 3674	3692
Sulfur CONTAMINAN	ppm TS	ASTM D5185m method	2500 limit/base	3457 current	1331 3674 history1	3692 history2
Sulfur CONTAMINAN [®] Silicon	ppm TS ppm	ASTM D5185m method ASTM D5185m	2500 limit/base	3457 current 6	1331 3674 history1 5	3692 history2 4
Sulfur CONTAMINAN ^T Silicon Sodium	ppm TS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	2500 limit/base >30	3457 current 6 6 1	1331 3674 history1 5 4	3692 history2 4 2
Sulfur CONTAMINAN ^T Silicon Sodium Potassium	ppm TS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2500 limit/base >30 >20	3457 current 6 6 1	1331 3674 history1 5 4 2	3692 history2 4 2 <1
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm TS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	2500 limit/base >30 >20 limit/base	3457 current 6 6 1 current	1331 3674 history1 5 4 2 history1	3692 history2 4 2 <1 history2
Sulfur CONTAMINAN ^T Silicon Sodium Potassium INFRA-RED Soot %	ppm TS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	2500 limit/base >30 >20 limit/base >3	3457 current 6 6 1 1 current 0.3	1331 3674 history1 5 4 2 history1 0.2	3692 history2 4 2 <1 history2 0.1
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624	2500 limit/base >30 >20 limit/base >3 >20	3457 current 6 6 1 current 0.3 8.8 20.3	1331 3674 history1 5 4 2 history1 0.2 6.5	3692 history2 4 2 <1 history2 0.1 5.3
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824 *ASTM D7624	2500 limit/base >30 >20 limit/base >3 >20 >30	3457 current 6 6 1 current 0.3 8.8 20.3	1331 3674 history1 5 4 2 history1 0.2 6.5 19.0	3692 history2 4 2 <1 history2 0.1 5.3 16.5



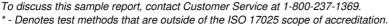
OIL ANALYSIS REPORT

VISUAL





	VISUAL		methou	iiiiii/base	current	TISLOTYT	This to I y Z
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
\sim	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
23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Apr5/23 May19/23							
×	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	14.2	13.7	13.8	14.0
	GRAPHS						
	Ferrous Alloys						
23	iron						
Apr5/23 May19/23	60 - nickel	1 1					
M	50-						
	톨40						
	30						
	20						
	10						
			\sim				
	122	722	(23 -	/23.			
	Aug27/20 Jan29/22 Apr6/22	Oct21/22	Mar13/23 Apr5/23	May 1 9/23			
	Non-ferrous Meta		2	2			
	60 T	15					
	copper						
	50 - management lead						
	40						
	₩30-						
	11						
	20						
	10-1/	\ · · · ·					
		1-		and the second se			
	122	/22 -	/23 -	/23 -			
	Aug27/20 Jan29/22 Apr6/22	oct21/22	Mar13/23 Apr5/23	May 19/23			
	Viscosity @ 100°C		~	2			
	¹⁸ T	_			Base Number		
	17- Abnormal			12	Base		
	10-				.0		
	15 Bese			KOH/6	1.0	1 -	$\sim \sim$
				Bu		\backslash	
	2014 - Abnormal	1		Base Number (mg KOH/g) 9		V	
	11-			N 82	H.O		
	10	/		Base	2.0-		
	9			Z			
		5	n n			12	2 2 2
	Aug27/20 Jan29/22 Apr6/22	Oct21/22	Mar13/23 Apr5/23	May 1 9/23	Aug27/20 Jan29/22 Apr6/22	Apr29/22 0ct21/22	Mar13/23 Apr5/23 May19/23
	Au Ja	ŏ	M	Ma	Au Ja A	Ar	M.
Laboratory	: WearCheck USA -	501 Madi	son Ave., Ca	ry, NC 2751	3 GFL Env	vironmental - 6	654S - Midlothiar
Sample No.							Deergrove Road
ab Number		Diagnos		Sep 2023			Midlothian, VA
Jnique Number	: 10643687	Diagnos		s Davis			US 23112
Test Package	: FLEET						: Corbin Umphlet
	contact Customer Serv					cump	hlet@gflenv.com
	re outside of the ISO 1				(ICCM 106-0010)		T: F'
					1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +		



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Submitted By: TECHNICIAN ACCOUNT

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