

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 213727

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

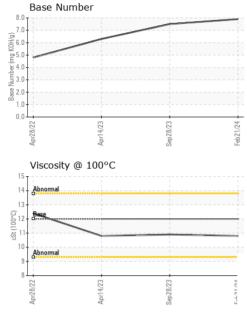
Fluid Condition

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

		Apr202	2 Apr2023	Sep2023 Fe	b2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0119012	PCA0105331	PCA0095757
Sample Date		Client Info		21 Feb 2024	28 Sep 2023	14 Apr 2023
Machine Age	mls	Client Info		145577	137084	117020
Oil Age	mls	Client Info		145577	137084	117020
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S .	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	11	15	19
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	5
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	6	9
Lead	ppm	ASTM D5185m	>40	<1	2	0
Copper	ppm	ASTM D5185m	>330	1	<1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	8	2	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	53	60	50
Manganese	ppm	ASTM D5185m	0		4	
	ppin	ASTIVI DOTODITI	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	950	<1 809	<1	1 817
-						
Calcium	ppm	ASTM D5185m	950	809	1006	817
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	950 1050	809 1131	1006 1265	817 1108
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995	809 1131 1066	1006 1265 1096	817 1108 917
Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180	809 1131 1066 1243	1006 1265 1096 1360	817 1108 917 1158 2969 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	950 1050 995 1180 2600	809 1131 1066 1243 3278	1006 1265 1096 1360 3197 history1 4	817 1108 917 1158 2969 history2 5
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600 limit/base	809 1131 1066 1243 3278 current	1006 1265 1096 1360 3197 history1	817 1108 917 1158 2969 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	950 1050 995 1180 2600 limit/base >25	809 1131 1066 1243 3278 current 3	1006 1265 1096 1360 3197 history1 4	817 1108 917 1158 2969 history2 5
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25	809 1131 1066 1243 3278 current 3 <1 7 current	1006 1265 1096 1360 3197 history1 4 3 21 history1	817 1108 917 1158 2969 history2 5 2 28 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	809 1131 1066 1243 3278 current 3 <1 7 current 0.2	1006 1265 1096 1360 3197 history1 4 3 21 history1 0.3	817 1108 917 1158 2969 history2 5 2 28 history2 0.4
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	809 1131 1066 1243 3278 current 3 <1 7 current	1006 1265 1096 1360 3197 history1 4 3 21 history1	817 1108 917 1158 2969 history2 5 2 28 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	809 1131 1066 1243 3278 current 3 <1 7 current 0.2	1006 1265 1096 1360 3197 history1 4 3 21 history1 0.3	817 1108 917 1158 2969 history2 5 2 28 history2 0.4
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm kbs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	809 1131 1066 1243 3278 current 3 <1 7 current 0.2 7.2 18.7	1006 1265 1096 1360 3197 history1 4 3 21 history1 0.3 8.5	817 1108 917 1158 2969 history2 5 2 28 history2 0.4 8.7
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm kbs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >3	809 1131 1066 1243 3278 current 3 <1 7 current 0.2 7.2 18.7	1006 1265 1096 1360 3197 history1 4 3 21 history1 0.3 8.5 20.0	817 1108 917 1158 2969 history2 5 2 28 history2 0.4 8.7 19.1



OIL ANALYSIS REPORT



	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	
Sep 28/23	Appearance	scalar '	*Visual	NORML	NORML	NORML	NORML	
Sep	dor 0dor	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	12.00	10.8	10.9	10.8	
	GRAPHS							
	Iron (ppm)			100-	Lead (ppm))		
	Severe		1		Severe			
Sep 28/23	2			60	1 			
0	3 E 150 100 - Abnormal			40	Abnormal			
	50			20	i 1 1			
				0				
	Apr28/22 Apr14/23		Sep 2 0/23	Feb21/24	Apr28/22	Apr14/23 Sen28/23	Eeh21/24	
			00	말				
	Aluminum (ppm)			50	Chromium	(ppm)		
	60			40	Severe			
	E 40 - Severe		 	e ³⁰				
	Abnormal			H 20-	Abnormal			
	20 Adminia		1	10				
			2	0	52	53		
	Apr28/22		Sep 20/23	Feb21/24	Apr28/22	Apr14/23 Sep28/23	Feh21/24	
	Copper (ppm)	c	ò	LC.	Silicon (ppn)			
	400			80		···/		
	400 Severe			60-				
	톱 200-			틆 40				
					Abnormal			
	100			20		<hr/>		
				- 64		33	10	
	Apr28/22 Apr14/23	6	Sep 2 0/23	Feb21/24	Apr28/22	Apr14/23 Sen 28/23	Feb21/24	
	Viscosity @ 100°C		o	μ.	Base Numb			
	¹⁶			8.0 (8) HO 6.0 William HO 200 Reg				
	14 Abnormal			9 6.0 E				
	(C)=00112		-	a 4.0				
	4bnormal			2.0				
	8			0.0				
	Apr28/22 Apr14/23		Sep 2 0/23	Feb21/24	Apr28/22	Apr14/23 Sep28/23	Feh21/24	
	Ap		2	Fer	Ap	Ap		
	atory : WearCheck USA - 50	1 Madison	Ave., Carv.	NC 27513		MILLER TRUCK LEASING #118		
Laboi	le No. : PCA0119012	Receiv	ved : 04 Mar 2024			2196 BENNETT ROAI		
ANTAR Samp		Tested	: 04	04 Mar 2024		PHIL	ADELPHIA, PA	
Samp Lab N	umber : 06107105							
Samp Lab N Unique	Number : 10910602	Diagno	sed : 04	Mar 2024 - We	es Davis		US 19116	
Certificate L2367 Test F		Diagno ests: TBN)	sed :04	Mar 2024 - Wo	es Davis	Contact:		

Contact/Location: ROSTY VITER - MILPHINE