

OIL ANALYSIS REPORT

Sample Rating Trend





Component Natural Gas Engine

PETRO CANADA SENTRON LD 3000 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

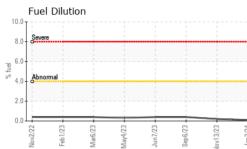
Fluid Condition

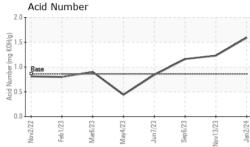
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

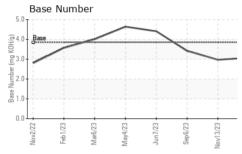
		Nov2022 F	eb 2023 Mar2023 May20	23 Jun2023 Sep2023 Nov2023	Jan2024		
SAMPLE INFORM	/ ATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PCA0111980	PCA0111862	PCA0092129	
Sample Date		Client Info		02 Jan 2024	13 Nov 2023	06 Sep 2023	
Machine Age	hrs	Client Info				154383	
Oil Age	hrs	Client Info			155871	2986	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2	
Water		WC Method	>0.1	NEG	NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	11	4	8	
Chromium	ppm	ASTM D5185m	>4	<1	0	<1	
Nickel	ppm	ASTM D5185m	>2	0	0	0	
Titanium	ppm	ASTM D5185m		0	0	0	
Silver	ppm	ASTM D5185m	>3	0	0	0	
Aluminum	ppm	ASTM D5185m	>9	2	1	1	
Lead	ppm	ASTM D5185m	>30	2	<1	<1	
Copper	ppm	ASTM D5185m	>35	2	0	1	
Tin	ppm	ASTM D5185m	>4	<1	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES	1-1-		l:	-	-	la la tamu O	
		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	5	0	0	0	
Barium	ppm	ASTM D5185m	1	0	0	0	
Molybdenum	ppm	ASTM D5185m	2	10	6	8	
Manganese	ppm	ASTM D5185m	1	0	<1	<1	
Magnesium	ppm	ASTM D5185m	5	13	10	9	
Calcium	ppm	ASTM D5185m	1220	1922	1425	1531	
Phosphorus	ppm	ASTM D5185m	298	453	316	332	
Zinc	ppm	ASTM D5185m	350	516	385	403	
Sulfur	ppm	ASTM D5185m	1995	3135	2407	2970	
CONTAMINAN	TS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	3	2	3	
Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>+100	3 0	2 0	3 <1	
			>+100 >20		0 0		
Sodium	ppm	ASTM D5185m		0	0	<1	
Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>20	0 2	0 0	<1 0	
Sodium Potassium Fuel	ppm ppm	ASTM D5185m ASTM D5185m ASTM D3524	>20 >4.0	0 2 0.1	0 0 0.2	<1 0 0.4	
Sodium Potassium Fuel INFRA-RED	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D3524 method	>20 >4.0	0 2 0.1 current	0 0 0.2 history1	<1 0 0.4 history2	
Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844	>20 >4.0 limit/base	0 2 0.1 current 0	0 0 0.2 history1 0.1	<1 0 0.4 history2 0	
Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D3524 Method *ASTM D7844 *ASTM D7624	>20 >4.0 limit/base	0 2 0.1 current 0 7.8	0 0.2 history1 0.1 6.0	<1 0 0.4 history2 0 6.1	
Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm % Abs/cm Abs/.1mm ATION	ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D7844 *ASTM D7844 *ASTM D7624	>20 >4.0 limit/base >20 >30	0 2 0.1 <u>current</u> 0 7.8 18.8	0 0.2 history1 0.1 6.0 16.7 history1	<1 0 0.4 <u>history2</u> 0 6.1 16.9	
Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D7844 *ASTM D7624 *ASTM D7615 method	>20 >4.0 limit/base >20 >30 limit/base	0 2 0.1 0 7.8 18.8 current	0 0 0.2 history1 0.1 6.0 16.7	<1 0 0.4 history2 0 6.1 16.9 history2	

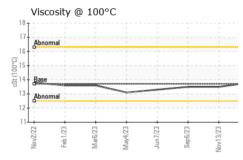


OIL ANALYSIS REPORT









	VISU	IAL		metho	d limit/bas	se current	t his	story1	hist	ory2
	White M	letal	scalar	· *Visual	NONE	NONE	NOI	VE	NON	E
	Yellow		scalar		NONE	NONE	NO		NON	
	Precipita		scalar		NONE	NONE	NO		NON	
	Silt		scalar	*Visual	NONE	NONE	NO	١E	NON	E
	Debris		scalar	*Visual	NONE	NONE	NO	١E	NON	E
	Sand/Di	irt	scalar	*Visual	NONE	NONE	NO	١E	NON	E
Sep6/23 . Nov13/23 - Jan2/24 -	Appearance		scalar	*Visual NORML		NORML	NOF	RML	NORML	
Sep Nov1 Jan	Odor		scalar	*Visual	NORML	NORML	NOF	RML	NOR	ML
	Emulsifi	ed Water	scalar	*Visual	>0.1	NEG	NEC	à	NEG	
	Free Wa	ater	scalar	*Visual		NEG	NEC	à	NEG	
	FLUI	D PROF	PERTIES	S metho	d limit/bas	se current	t his	story1	hist	ory2
	Visc @	100°C	cSt	ASTM D4	45 13.7	13.8	13.5	;	13.5	
	GRA									
	Iron (ppm)				Lead (ppn ⁶⁰ T Severe	n)			
	Severe					50 - Severe				
Sep6/23 - Nov13/23 - Jan2/24 -		J				40-				
2	40					Abnormal				
	20-					20				
						0	_			_
	Nov2/22	Feb 1/23 Mar6/23	May4/23	Sep 6/23	Nov13/23	Nov2/22	Mar6/23 May4/23	Jun7/23 -	Sep 6/23 Nov13/23	Jan 2/24 .
				c5	Nov Pic		-	٦٢	s o	ŗ
		num (ppn	1)			Chromium	n (ppm)			
	15 - Severe					6 - Severe				
Sep 6/23 Nov13/23	10- Abnorma					Abnormal		1		1
Nov	5					2				
					4					4
	Nov2/22	Feb 1/23 Mar6/23	May4/23	Sep 6/23	Nov13/23	Nov2/22 Feb1/23	Mar6/23 May4/23	Jun7/23	Sep6/23 Nov13/23	Jan2/24
	Coppe	er (ppm)			2	Silicon (pp	om)		2	
	Severe	1	1 1	1	1 1	200 Severe				
	60					150				
	40 - Abnorma					Abnormal		i i		
	20-					50-				
Sep 6/23 Nov13/23	0					0				
Se Nov	Nov2/22	Feb 1/23 Mar6/23	May4/23 Jun7/23	Sep 6/23	Vov13/23	Nov2/22 - Feb1/23 -	Mar6/23 May4/23	Jun7/23	Sep6/23 Nov13/23	Jan2/24
	≥ Viscos	7	S No	<u>٦</u>						
	¹⁸ T					Base Num				
	16 - Abnorma	1				B 4.0 - Base 3.0 - 3.0 - 3.				
	16 - Base Abnorma					Ē 3.0				
140	Abnorma	1				ĝ 2.0				
	12-					1.0				
	10 72	/23+	/23+	/23 -		0.0	/23+	/23	/23+ /23	124
	Nov2/22	Feb1/23 Mar6/23	May4/23 Jun7/23	Sep6/23	Nov13/23	Nov2/22 Feb1/23	Mar6/23 May4/23	Jun7/23	Sep6/23 Nov13/23	Jan2/24
Laboratory Sample No. Lab Number Unique Number Test Package	: PCA01 : <mark>060574</mark> : 108233	11980 41 90 (Addition	Recieve Diagno Diagnos	ed : sed : stician : : uelDilutior	Cary, NC 27 10 Jan 2024 12 Jan 2024 Sean Felton 1, PercentFue		ERVEST OI		26 AILY DAN ⁻ US	ROAD FE, VA 24237

 Centificate 12367
 Test Package
 : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

 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)

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