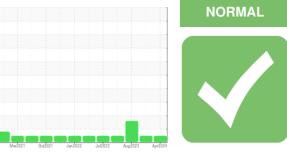


OIL ANALYSIS REPORT

SAMPLE INFORMATION metho

Sample Rating Trend



Machine Id

2026857

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (35 QTS)

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.

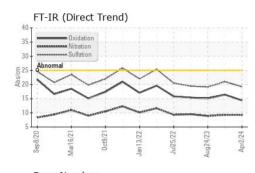
Fluid Condition

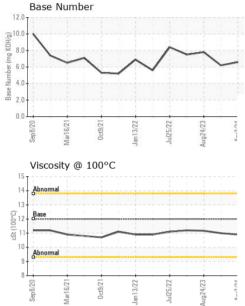
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM		method	limit/base	current	nistory i	nistory2
Sample Number		Client Info		PCA0121386	PCA0113250	PCA0104340
Sample Date		Client Info		02 Apr 2024	27 Oct 2023	24 Aug 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		20000	40000	20000
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	e	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	23	28	26
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	<1
Titanium	ppm	ASTM D5185m		37	2	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	4	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>330	7	9	7
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 27	history1 0	history2 8
	ppm ppm	ASTM D5185m			· · · · · ·	
Boron		ASTM D5185m	2	27	0	8
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	27 0	0 0	8
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	27 0 31	0 0 60	8 0 53
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	27 0 31 <1	0 0 60 <1	8 0 53 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	27 0 31 <1 699	0 0 60 <1 930	8 0 53 <1 864
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	27 0 31 <1 699 1438	0 0 60 <1 930 1070	8 0 53 <1 864 1023
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	27 0 31 <1 699 1438 1015	0 0 60 <1 930 1070 951	8 0 53 <1 864 1023 1021
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	27 0 31 <1 699 1438 1015 1235	0 0 60 <1 930 1070 951 1213	8 0 53 <1 864 1023 1021 1213
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	27 0 31 <1 699 1438 1015 1235 4093 current	0 0 60 <1 930 1070 951 1213 3198 history1	8 0 53 <1 864 1023 1021 1213 3991 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600	27 0 31 <1 699 1438 1015 1235 4093 current 6	0 0 60 <1 930 1070 951 1213 3198 history1 5	8 0 53 <1 864 1023 1021 1213 3991 history2 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >25	27 0 31 <1 699 1438 1015 1235 4093 current 6 2	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20	27 0 31 <1 699 1438 1015 1235 4093 <u>current</u> 6 2 6	0 0 60 <1 930 1070 951 1213 3198 history1 5 < <1 6	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 -20 imit/base	27 0 31 <1 699 1438 1015 1235 4093 current 6 2 6 5 current	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3	27 0 31 <1 699 1438 1015 1235 4093 <i>current</i> 6 2 6 <i>current</i> 0.4	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6 history1 0.5	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20	27 0 31 <1 699 1438 1015 1235 4093 <i>current</i> 6 2 6 <i>current</i> 0.4 9.3	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6 history1 0.5 9.3	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2 0.4 8.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3	27 0 31 <1 699 1438 1015 1235 4093 <i>current</i> 6 2 6 <i>current</i> 0.4	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6 history1 0.5	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm t ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20	27 0 31 <1 699 1438 1015 1235 4093 <i>current</i> 6 2 6 <i>current</i> 0.4 9.3	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6 history1 0.5 9.3	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2 0.4 8.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm t ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 2600 25 20 220 20 1 init/base >3 20 30 30	27 0 31 <1 699 1438 1015 1235 4093 current 6 2 6 current 0.4 9.3 19.2	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6 history1 0.5 9.3 21.0	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2 0.4 8.9 19.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 2600 25 20 220 20 1 init/base >3 20 30 30	27 0 31 <1 699 1438 1015 1235 4093 <i>current</i> 6 2 6 <i>current</i> 0.4 9.3 19.2 <i>current</i>	0 0 60 <1 930 1070 951 1213 3198 history1 5 <1 6 ×1 6 history1 0.5 9.3 21.0 history1	8 0 53 <1 864 1023 1021 1213 3991 history2 8 1 1 1 history2 0.4 8.9 19.1 history2



OIL ANALYSIS REPORT



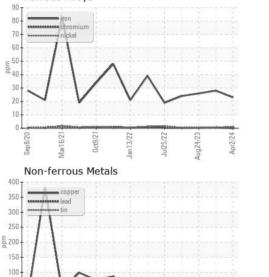


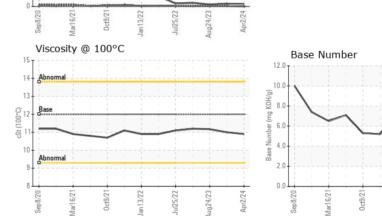
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	▲ 0.2%
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.9	11.0	11.17
GRAPHS						

Ferrous Alloys

50

: PCA0121386





PERDUE FARMS - GEORGETOWN 20621 SAVANAH RD GEORGETOWN, DE 5 Davis US 19947

Contact: ROBERT LOCKWOOD Robert.Lockwood@Perdue.com T: 206:2012) F:

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Certificate I
To discu
* - Denc
Statemu
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 Vertilization
 Unique Number
 : 11097622
 Diagnosed
 : 25 Jun 2024 - Wes Davis

 Certificate 12367
 Test Package
 : FLEET
 Contact:

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 Robert.L

 * - 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)

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

Received

Tested

: 25 Jun 2024

: 25 Jun 2024

Report Id: PERGEODE [WUSCAR] 06219425 (Generated: 06/25/2024 19:14:40) Rev: 1

Laboratory

Sample No.

Lab Number : 06219425