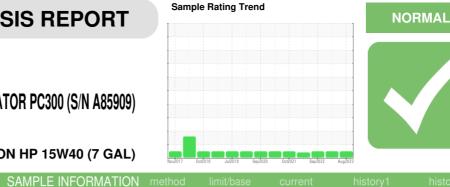


OIL ANALYSIS REPORT







KOMATSU PC 300 EXCAVATOR PC300 (S/N A85909) Component **Diesel Engine** Fluid

PETRO CANADA DURON HP 15W40 (7 GAL)

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.

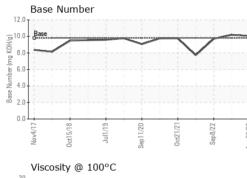
Fluid Condition

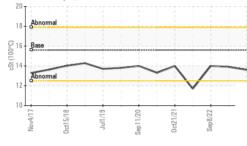
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

				Current	-	
Sample Number		Client Info		PCA0071900	PCA0090566	PCA0072072
Sample Date		Client Info		23 Aug 2023	28 Feb 2023	08 Sep 2022
Machine Age	hrs	Client Info		7721	7532	7449
Oil Age	hrs	Client Info		189	83	396
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
•			11 11 /			
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	17	29	23
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm		>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	<1	2
Lead	ppm	ASTM D5185m	>40	- <1	2	1
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm		>15	0	<1	1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
	le le					
		method			history1	hietory2
ADDITIVES	nnm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	1	9	8
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	1 0	9 0	8 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 64	9 0 59	8 0 60
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 64 <1	9 0 59 1	8 0 60 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 64 <1 1049	9 0 59 1 994	8 0 60 <1 950
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 64 <1 1049 1161	9 0 59 1 994 1131	8 0 60 <1 950 1066
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 ASTM D5185m	limit/base	1 0 64 <1 1049 1161 1062	9 0 59 1 994 1131 1018	8 0 60 <1 950 1066 980
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 64 <1 1049 1161 1062 1315	9 0 59 1 994 1131 1018 1304	8 0 60 <1 950 1066 980 1217
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 0 64 <1 1049 1161 1062 1315 3754	9 0 59 1 994 1131 1018 1304 3526	8 0 60 <1 950 1066 980 1217 3006
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 ASTM D5185m ASTM D5185m	limit/base	1 0 64 <1 1049 1161 1062 1315	9 0 59 1 994 1131 1018 1304 3526 history1	8 0 60 <1 950 1066 980 1217
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	1 0 64 <1 1049 1161 1062 1315 3754	9 0 59 1 994 1131 1018 1304 3526	8 0 60 <1 950 1066 980 1217 3006 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 0 64 <1 1049 1161 1062 1315 3754 current	9 0 59 1 994 1131 1018 1304 3526 history1 6 1	8 0 60 <1 950 1066 980 1217 3006 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	1 0 64 <1 1049 1161 1062 1315 3754 current 6	9 0 59 1 994 1131 1018 1304 3526 history1 6	8 0 60 <1 950 1066 980 1217 3006 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25	1 0 64 <1 1049 1161 1062 1315 3754 current 6 <	9 0 59 1 994 1131 1018 1304 3526 history1 6 1	8 0 60 <1 950 1066 980 1217 3006 history2 4 11
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20	1 0 64 <1 1049 1161 1062 1315 3754 current 6 < 1 0	9 0 59 1 994 1131 1018 1304 3526 history1 6 1 2	8 0 60 <1 950 1066 980 1217 3006 history2 4 11 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	1 0 64 <1 1049 1161 1062 1315 3754 <i>current</i> 6 <1 0	9 0 59 1 994 1131 1018 1304 3526 history1 6 1 2 2 history1	8 0 60 <1 950 1066 980 1217 3006 history2 4 11 5 <i>history2</i>
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	1 0 64 <1 1049 1161 1062 1315 3754 <i>current</i> 6 <1 0 <i>current</i>	9 0 59 1 994 1131 1018 1304 3526 history1 6 1 2 history1 0.2	8 0 60 <1 950 1066 980 1217 3006 history2 4 11 5 <u>history2</u> 0.3
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	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	1 0 64 <1 1049 1161 1062 1315 3754 <i>current</i> 6 <1 0 <i>current</i> 0.3 6.5	9 0 59 1 994 1131 1018 1304 3526 history1 6 1 2 <u>history1</u> 0.2 5.7 18.0	8 0 60 <1 950 1066 980 1217 3006 history2 4 11 5 <u>history2</u> 0.3 7.3 19.9
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 TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >30 >30	1 0 64 <1 1049 1161 1062 1315 3754 <i>current</i> 6 <1 0 <i>current</i> 0.3 6.5 18.4 <i>current</i>	9 0 59 1 994 1131 1018 1304 3526 history1 6 1 2 history1 0.2 5.7 18.0 history1	8 0 60 <1 950 1066 980 1217 3006 history2 4 11 5 <u>history2</u> 0.3 7.3 19.9 history2
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	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20 >30	1 0 64 <1 1049 1161 1062 1315 3754 <i>current</i> 6 <1 0 <i>current</i> 0.3 6.5 18.4	9 0 59 1 994 1131 1018 1304 3526 history1 6 1 2 <u>history1</u> 0.2 5.7 18.0	8 0 60 <1 950 1066 980 1217 3006 history2 4 11 5 <u>history2</u> 0.3 7.3 19.9



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Certificate L2367

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