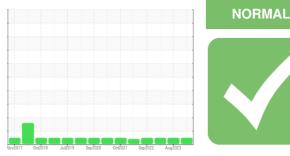


OIL ANALYSIS REPORT



Sample Rating Trend



SAMPLE INFORMATION method



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Machine Id

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

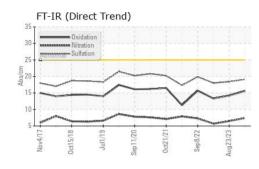
Fluid Condition

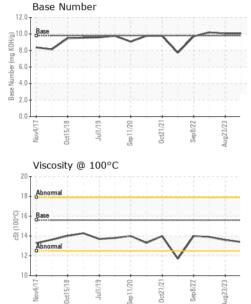
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		methoa	iiiiii/base	current	TIIStOLA	TIIStOLYZ
Sample Number		Client Info		PCA0104392	PCA0071900	PCA0090566
Sample Date		Client Info		25 Mar 2024	23 Aug 2023	28 Feb 2023
Machine Age	hrs	Client Info		7924	7721	7532
Oil Age	hrs	Client Info		203	189	83
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	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 METAL	c	method	limit/base	ourropt	history1	history2
	3			current		
Iron	ppm	ASTM D5185m	>100	16	17	29
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>40	1	<1	2
Copper	ppm	ASTM D5185m	>330	0	1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1 1	history2 9
	ppm ppm		limit/base			
Boron Barium	ppm	ASTM D5185m	limit/base	14	1	9
Boron Barium Molybdenum		ASTM D5185m ASTM D5185m	limit/base	14 0	1 0	9 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 61	1 0 64	9 0 59
Boron Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 61 <1	1 0 64 <1 1049	9 0 59 1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 61 <1 976	1 0 64 <1	9 0 59 1 994 1131
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 61 <1 976 1097 1083	1 0 64 <1 1049 1161 1062	9 0 59 1 994
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	limit/base	14 0 61 <1 976 1097	1 0 64 <1 1049 1161	9 0 59 1 994 1131 1018
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		14 0 61 <1 976 1097 1083 1287 3622	1 0 64 <1 1049 1161 1062 1315 3754	9 0 59 1 994 1131 1018 1304 3526
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 ASTM D5185m	limit/base	14 0 61 <1 976 1097 1083 1287 3622 current	1 0 64 <1 1049 1161 1062 1315 3754 history1	9 0 59 1 994 1131 1018 1304 3526 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	limit/base	14 0 61 <1 976 1097 1083 1287 3622 current 3	1 0 64 <1 1049 1161 1062 1315 3754 history1 6	9 0 59 1 994 1131 1018 1304 3526 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	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 >25	14 0 61 <1 976 1097 1083 1287 3622 current 3 2	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 <1	9 0 59 1 994 1131 1018 1304 3526 history2 6 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 2 <1	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 < <1 0	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 <1 current	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 <1 0 history1	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 2 history2
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	ASTM D5185m ASTM D5185m	limit/base >25 >20	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 <1 2 <1 0.3	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 <1 0 history1 0.3	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 <i>history2</i> 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 <1 current	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 < <1 0 history1 0.3 6.5	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 6 1 2 <i>history2</i> 0.2 5.7
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	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 <1 2 <1 0.3	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 <1 0 history1 0.3	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 <i>history2</i> 0.2
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 ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 current 3 2 cl current 0.3 7.4	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 < <1 0 history1 0.3 6.5	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 6 1 2 <i>history2</i> 0.2 5.7
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 ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20 >3 >20	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 <1 2 <1 0.3 7.4 19.1	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 <1 0 history1 0.3 6.5 18.4	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 bistory2 0.2 5.7 18.0
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 ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >30 >30	14 0 61 <1 976 1097 1083 1287 3622 current 3 2 <1 current 0.3 7.4 19.1 current	1 0 64 <1 1049 1161 1062 1315 3754 history1 6 <1 0 history1 0.3 6.5 18.4 history1	9 0 59 1 994 1131 1018 1304 3526 history2 6 1 2 6 1 2 2 history2 0.2 5.7 18.0 history2



OIL ANALYSIS REPORT





	VISUAL		method	limit/base	e 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		
In the Real Property in the Party of the Par	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE		
Sep8/22 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML		
Ser Aug2	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		method	limit/base		history1	history2		
	Visc @ 100°C	cSt	ASTM D445	15.6	13.4	13.6	13.9		
	GRAPHS								
	Iron (ppm)				Lead (ppm)				
23	200 - Severe				80 - Severe				
Sep 8/22 Aug 23/23	_ 150				60				
Ā	100 - Abnormal			udd	40 - Abnormal	+ + + + + + + + + + + + + + + + + + + +			
	50				20 -				
				-	0				
	Nov4/17 Oct15/18 Jul1/19	Sep11/20	Sep 8/22	Aug 23/23	Nov4/17 Dct15/18	Jul1/19 Sep11/20 Oct21/21	Sep 8/22 Aug 23/23		
	Ju Det	Sep	Sej	Aug	No	Sep	Ser		
	Aluminum (ppm)				Chromium (p	opm)			
	50 40 Severe				50 40 Severe				
/23 -	a 20 - Abnormal			8	20 Abnormal				
Sep 0/22 Aug 23/23	10-				10				
-44	0				0				
	Nov4/17	Sep11/20 -	Sep 8/22	Aug23/23 -		Sep11/20 -	Sep8/22 -		
	_ 0	Sep	S O	Аид	_ 0	S O	Ser		
	Copper (ppm)				Silicon (ppm)				
	400 Severe				60				
				E					
	툡 200			6	Abnormal				
	100 -				20 -				
	0 12 0		7	2			13		
	Nov4/17 Oct15/18 Jul1/19	Sep11/20	Sep8/22	Aug 23/23	Nov4/17 Dct15/18	Jul1/19. Sep11/20	Sep 8/22 -		
	– – – – Viscosity @ 100°C	0,		A	Base Numbe		A		
	20 T	_12.0 T							
	18 - Abnormal			KOH/	10.0 Base	~~~~			
	() 16 Base 001) 17 14			er (mg	6.0		Y		
	Abhormai	\sim		Aumb	4.0				
			V	Base	2.0				
		20-	22			/19+ /20+	22		
	Nov4/17 0ct15/18 Jul1/19	Sep11/20	Sep 8/22	Aug 23/23	Nov4/17 0ct15/18	Jul1/19 Sep11/20 Oct21/21	Sep 8/22 -		
					_				
	: PCA0104392 : 06140693 : 10965501	n Ave., Cary, NC 27513 ved : 05 Apr 2024 d : 08 Apr 2024 iosed : 08 Apr 2024 - Wes Davis			E WE	J F PRICE 611 PLEASANT ST E WEYMOUTH, MA US 02189 Contact: JOHN LANG			



Unique Number : 109 Test Package : MOB 2 Certificate L2367 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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Submitted By: JOHN LANG

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