À ATLAS

OIL ANALYSIS REPORT

Sample Rating Trend



Area QUANTUM Machine Id 4205

Component Compressor

Fluid LO-ASH ENGINE OIL SAE 30 (--- 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 fluid.

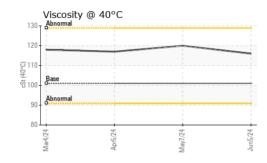
Fluid Condition

The condition of the fluid is acceptable for the time in service.

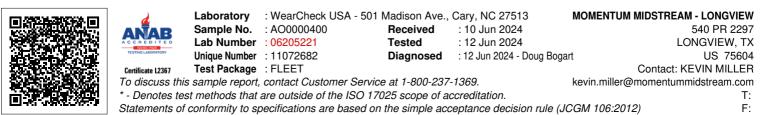
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		AO0000400	AO0000398	AO0000397
Sample Date		Client Info		05 Jun 2024	07 May 2024	05 Apr 2024
Machine Age	hrs	Client Info		39947	39309	37652
Oil Age	hrs	Client Info		6724	6086	5428
Oil Changed		Client Info		Filtered	Filtered	Filtered
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	1	<1	3
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	1
Lead	ppm	ASTM D5185m	>25	4	4	4
Copper	ppm	ASTM D5185m	>50	9	6	9
Tin	ppm	ASTM D5185m	>15	2	1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	37	6	4	5
-	1-1-			•		
Barium	ppm	ASTM D5185m	12	<1	0	0
			12 200	-		0 <1
Barium	ppm	ASTM D5185m		<1	0	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		<1 0	0 0	<1
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200	<1 0 <1	0 0 <1	<1 0
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 5	<1 0 <1 11	0 0 <1 11	<1 0 8
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 5 1600	<1 0 <1 11 1189	0 0 <1 11 1176	<1 0 8 1160
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 5 1600 300	<1 0 <1 11 1189 284	0 0 <1 11 1176 300	<1 0 8 1160 255
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 5 1600 300 400	<1 0 <1 11 1189 284 344	0 0 <1 11 1176 300 323	<1 0 8 1160 255 316
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 5 1600 300 400 2600 limit/base	<1 0 <1 11 1189 284 344 2938	0 0 <1 11 1176 300 323 2851	<1 0 8 1160 255 316 2735
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 5 1600 300 400 2600 limit/base	<1 0 <1 11 1189 284 344 2938 current	0 0 <1 11 1176 300 323 2851 history1	<1 0 8 1160 255 316 2735 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	200 5 1600 300 400 2600 limit/base >25	<1 0 <1 11 1189 284 344 2938 current 2	0 0 <1 11 1176 300 323 2851 history1 2	<1 0 8 1160 255 316 2735 history2 1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	200 5 1600 300 400 2600 limit/base >25	<1 0 <1 11 1189 284 344 2938 current 2 2 2	0 0 <1 11 1176 300 323 2851 history1 2 1	<1 0 8 1160 255 316 2735 history2 1 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	200 5 1600 300 400 2600 limit/base >25 >20	<1 0 <1 11 1189 284 344 2938 current 2 2 2 2	0 0 <1 11 1176 300 323 2851 <u>history1</u> 2 1 <1	<1 0 8 1160 255 316 2735 history2 1 2 0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	200 5 1600 300 400 2600 Iimit/base >25 >20	<1 0 <1 11 1189 284 344 2938 <u>current</u> 2 2 2 2 2 2	0 0 <1 11 1176 300 323 2851 history1 2 1 <1 <1 history1	<1 0 8 1160 255 316 2735 history2 1 2 0 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	200 5 1600 300 400 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> NONE	<1 0 <1 11 1189 284 344 2938 current 2 2 2 2 2 2 2 current NONE	0 0 <1 11 1176 300 323 2851 history1 2 1 <1 <1 history1 NONE	<1 0 8 1160 255 316 2735 history2 1 2 0 history2 0 NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual	200 5 1600 300 400 2600 imit/base >25 >20 imit/base NONE NONE	<1 0 <1 11 1189 284 344 2938 <u>current</u> 2 2 2 2 2 2 2 <u>current</u> NONE NONE	0 0 <1 11 1176 300 323 2851 history1 2 1 <1 <1 history1 NONE NONE	<1 0 8 1160 255 316 2735 history2 1 2 0 history2 NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual	200 5 1600 300 400 2600 Imit/base >25 20 Imit/base NONE NONE NONE NONE	<1 0 <1 11 1189 284 344 2938 <u>current</u> 2 2 2 2 2 2 2 2 2 <u>current</u> NONE NONE NONE	0 0 <1 11 1176 300 323 2851 <u>history1</u> 2 1 <1 <1 <u>history1</u> NONE NONE NONE NONE	<1 0 8 1160 255 316 2735 history2 1 2 0 history2 0 NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yuisual *Visual *Visual	200 5 1600 300 400 2600 imit/base >25 20 imit/base NONE NONE NONE NONE NONE	<1 0 <1 11 1189 284 344 2938 <u>current</u> 2 2 2 2 2 2 2 2 <u>current</u> NONE NONE NONE NONE	0 0 <1 11 1176 300 323 2851 <u>history1</u> 2 1 <1 <1 <u>history1</u> NONE NONE NONE NONE NONE	<1 0 8 1160 255 316 2735 history2 1 2 0 <u>history2</u> NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	200 5 1600 300 400 2600 imit/base >25 20 imit/base NONE NONE NONE NONE NONE NONE	<1 0 <1 11 1189 284 344 2938 <u>current</u> 2 2 2 2 2 2 2 2 0 <u>current</u> NONE NONE NONE NONE NONE	0 0 <1 11 1176 300 323 2851 history1 2 1 <1 <1 NONE NONE NONE NONE NONE NONE NONE	<1 0 8 1160 255 316 2735 12735 1 1 2 0 1 1 2 0 history2 1 NONE NONE NONE NONE NONE NONE NONE NO
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	200 5 1600 300 400 2600 imit/base >25 20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	<1 0 <1 11 1189 284 344 2938 current 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0	0 0 <1 11 1176 300 323 2851 history1 2 1 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON	<1 0 8 1160 255 316 2735 history2 1 2 0 history2 0 history2 NONE NONE NONE NONE NONE NONE NONE NON
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 5 1600 300 400 2600 imit/base >25 20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	<1 0 <1 11 1189 284 344 2938 current 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0	0 0 <1 11 1176 300 323 2851 history1 2 1 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON	<1 0 8 1160 255 316 2735 12735 1 1 2 0 1 2 0 1 NONE NONE NONE NONE NONE NONE NONE NO
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Visual Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 5 1600 300 2600 imit/base >25 20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	<1 0 <1 11 1189 284 344 2938 current 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0	0 0 <1 11 1176 300 323 2851 2851 2 1 <1 <1 NONE NONE NONE NONE NONE NONE NONE NO	<1 0 8 1160 255 316 2735 history2 1 2 0 history2 NONE NONE NONE NONE NONE NONE NONE NON



OIL ANALYSIS REPORT



/isc @ 40°C	TIES cSt	method ASTM D445	limit/base	current 116	history1 120	history: 117
SAMPLE IMAGE	S	method	limit/base	current	history1	history
Color				na imaga	na imaga	
20101				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS						
Ferrous Alloys						
iron						
nickel						
-						
Mar4/24 -		May7/24 .	Jun5/24			
Apri		May	յուլ			
Non-ferrous Meta	ls					
copper						
tin			/			
		\checkmark				
*******		***********	ALL ADOLD			
	and a design in the local data	the standard with the standard	ten ten mineralite			
24		24				
Mar4/24 Apr5/24		May7/24	Jun5/24			
Viscosity @ 40°C						
Viscosity @ 40°C						
Viscosity @ 40°C						
Viscosity @ 40°C						
Viscosity @ 40°C						
Aboomal						
Abnormal						
Aboomal Base						
Aboomal						
Abormal Base		May1/24	Jun5/24			



Submitted By: KEVIN MILLER