<u>Sullivan</u> Palatek.

OIL ANALYSIS REPORT

Area PAL 32 FOOD GRADE SULLIVAN PALATEK 1702020010 - MILLSTONE SPIRITS

Component Compressor

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

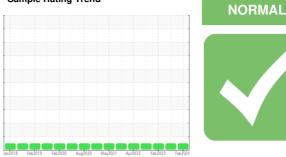
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

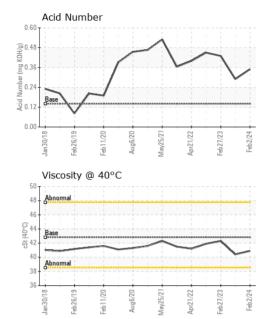
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



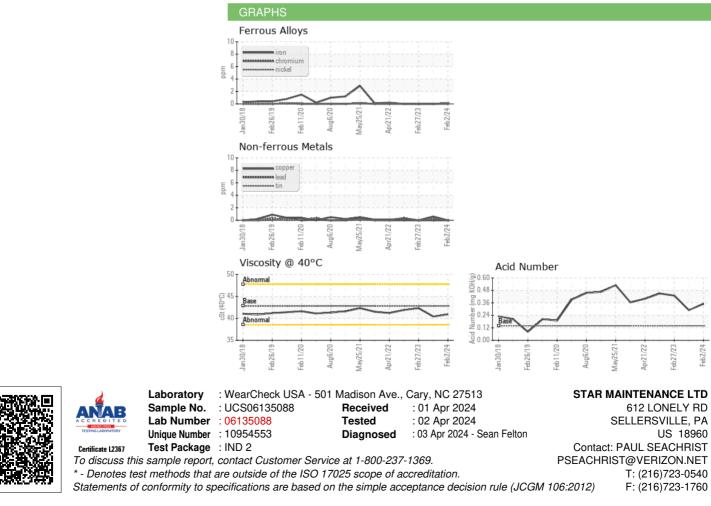
Sample Rating Trend

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UCS06135088	UCS05962346	UCS05791006
Sample Date		Client Info		02 Feb 2024	23 Jun 2023	27 Feb 2023
Machine Age	hrs	Client Info		15356	14258	13640
Oil Age	hrs	Client Info		1716	618	4485
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	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	0	0	0
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	1	<1
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	0	<1	0
Tin	ppm	ASTM D5185m	>15	0	<1	0
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	1	0	0	0
Barium	ppm	ASTM D5185m	730	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m	0.0	<1	0	1
Magnesium	ppm	ASTM D5185m	0	<1	0	<1
Calcium	ppm	ASTM D5185m	0	<1	0	0
Phosphorus	ppm	ASTM D5185m	0	498	523	399
Zinc	ppm	ASTM D5185m	0	6	0	47
Sulfur	ppm	ASTM D5185m	590	1416	1272	188
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	0	0
Sodium	ppm	ASTM D5185m		2	0	18
Potassium	ppm	ASTM D5185m	>20	1	0	0
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.14	0.35	0.29	0.43

OIL ANALYSIS REPORT



White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*Visual>0.1NEGNEGNEGFree Waterscalar*Visual>0.1NEGNEGNEGFullD PROPERTESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D44542.840.940.442.3Colorcolorimit/basecurrenthistory1history2BottomiiiiiiiBottomiiiiiii	VISUAL		method	limit/base	current	history1	history2
Precipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONELIGHTMODERSand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*Visual>0.1NEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D44542.840.940.442.3ColorImit/basecurrenthistory1history2ColorImit/basecurrenthistory1history2	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual >0.1 NEG NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cSt ASTM D445 42.8 40.9 40.4 42.3 SAMPLE IMAGES method limit/base current history1 history2 Color	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual Imit/base current history1 history2 FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cSt ASTM D445 42.8 40.9 40.4 42.3 SAMPLE IMAGES method limit/base current history1 history2 Color Imit/base current history1 bistory2 Imit/base current bistory1 bistory2 Imit/base current bistory3 current Imit/base current bistory4 current bistory4 Imit/base current bistory4 <th< th=""><th>Appearance</th><th>scalar</th><th>*Visual</th><th>NORML</th><th>NORML</th><th>NORML</th><th>NORML</th></th<>	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cSt ASTM D445 42.8 40.9 40.4 42.3 SAMPLE IMAGES method limit/base current history1 history2 Color Imit/base current history1 history2	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cSt ASTM D445 42.8 40.9 40.4 42.3 SAMPLE IMAGES method limit/base current history1 history2 Color Imit/base current history1 history2	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Visc @ 40°C cSt ASTM D445 42.8 40.9 40.4 42.3 SAMPLE IMAGES method limit/base current history1 history2 Color Image: Same state s	Free Water	scalar	*Visual		NEG	NEG	NEG
SAMPLE IMAGES method limit/base current history1 history2 Color Image: State of the state	FLUID PROPERT	IES	method	limit/base	current	history1	history2
Color	Visc @ 40°C	cSt	ASTM D445	42.8	40.9	40.4	42.3
	SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Bottom	Color						
	Bottom						



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