

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

VP-4 (S/N C-4229) Component

Pump Fluid **USPI VAC 100 (--- 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. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

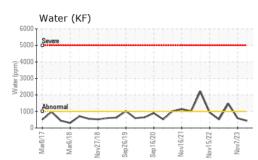


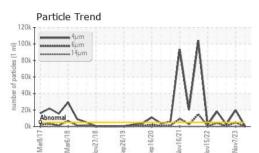


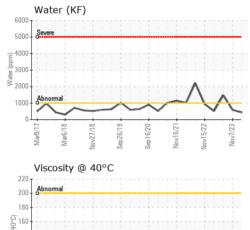
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USPM30126	USPM31229	USPM27095
Sample Date		Client Info		22 Feb 2024	07 Nov 2023	17 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	MARGINAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	48	49	44
Chromium	ppm	ASTM D5185m	>5	<1	0	0
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>7	<1	5	7
Lead	ppm	ASTM D5185m	>12	<1	0	0
Copper	ppm	ASTM D5185m	>30	<1	0	<1
Tin	ppm	ASTM D5185m	>9	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	2	3
Barium	ppm	ASTM D5185m	0	0	3	2
Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	0	0	0	1
Calcium	ppm	ASTM D5185m	0	1	25	25
Phosphorus	ppm	ASTM D5185m	1800	1061	1495	1544
Zinc	ppm	ASTM D5185m	0	6	35	27
Sulfur	ppm	ASTM D5185m	0	0	0	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	2	3	4
Sodium	ppm	ASTM D5185m		5	4	3
Potassium	ppm	ASTM D5185m	>20	3	1	2
Water	%	ASTM D6304	>.1	0.043	0.058	▲ 0.147
ppm Water	ppm	ASTM D6304	>1000	433	587.6	▲ 1471.9
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	929	20001	2538
Particles >6µm		ASTM D7647	>1300	184	4 782	637
Particles >14µm		ASTM D7647	>160	16	111	47
Particles >21µm		ASTM D7647	>40	5	17	12
Particles >38µm		ASTM D7647	>10	0	2	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/11	▲ 22/19/14	19/16/13
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	0.41	3.37	2.31

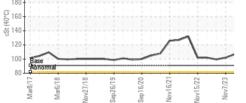


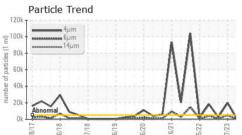
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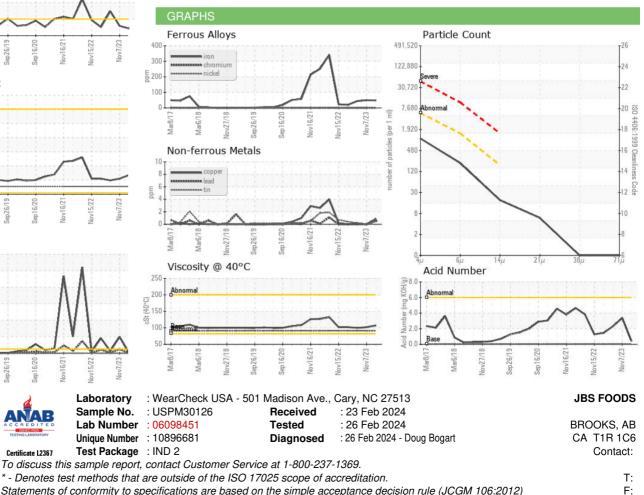






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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	>.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	91	107	102	99.5
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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