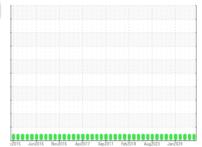


OIL ANALYSIS REPORT

Sample Rating Trend

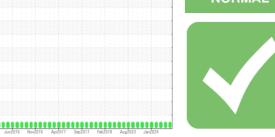




Machine Id

69K-2A (S/N X22XG503) Component Compressor

HP R&O ISO 100 (35 GAL)



Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

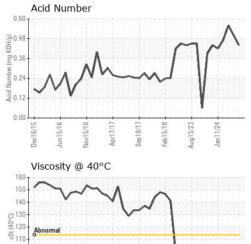
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		HPL0004788	HPL0005007	HPL0004524
Sample Date		Client Info		15 May 2024	15 Apr 2024	13 Mar 2024
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	NORMAL	NORMAL
CONTAMINATION	V	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	7	6	5
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m		0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	3	3	4
Lead	ppm	ASTM D5185m	>25	<1	0	<1
Copper	ppm	ASTM D5185m	>50	1	3	<1
Tin	ppm	ASTM D5185m	>15	2	2	2
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	1	<1
Magnesium	ppm	ASTM D5185m		<1	1	1
Calcium	ppm	ASTM D5185m		0	8	4
Phosphorus	ppm	ASTM D5185m		180	178	177
Zinc	ppm	ASTM D5185m		3	4	0
Sulfur	ppm	ASTM D5185m		17325	18314	18417
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	2	4
Sodium	ppm	ASTM D5185m		0	3	2
Potassium	ppm	ASTM D5185m	>20	2	0	1
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.44	0.50	0.56



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OIL ANALYSIS REPORT



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	>0.1	NEG	NEG	NEG
			>0.1			
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	ΓIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		99.9	101	100
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS Iron (ppm)				Lead (ppm)		
200 Severe			10		111777777	
To the contract of the contrac			E 5	n		
Abiloilla				Abnormal		
15 16 15	17	23		15/16	17-	23
Dec16/15- Jun15/16 Nov15/16	Sep18/17	Feb15/18 Aug15/23		Dec16/15 Jun15/16 Nov15/16	Apr17/17 Sep18/17 Feb15/18	Aug15/23 Jan11/24
	co.	A A	Ď.			A L
Aluminum (ppm) Chromium (ppm) On Severe						
Severe				Парадопродопродопродопрод		
Abnormal	recettiii		<u></u>	0 Abnormal		
0				0		
Dec16/15 - Jun15/16 - Nov15/16 -	Sep18/17	Feb15/18 Aug15/23	7/1	Dec16/15 Jun15/16 Nov15/16	Apr17/17 Sep18/17 Feb15/18	Aug15/23 Jan11/24
Jun Nov Apr	Sep	Feb Aug	2	Jun	Apri Sep	Aug
Copper (ppm)				Silicon (ppm)		
Severe			10	Severe	111777777777777777777777777777777777777	11111
100			<u> </u>	0		
Abnormal		<u> </u>	Edd 5	Abnormal		
O	3/17	778		Abnormal	7 L	724
O	Sep18/17	Feb15/18Aug15/23		Abnormal	Apr17/17 Sep18/17 Feb15/18	Aug15/23
O S 9 9	Sep18/17	Aug 15/23	177	Jun15/16 Nov15/16	Apr17/17	Aug15/23
Viscosity @ 40°C	Sep18/17	Aug15/23	177	Jun15/16 Nov15/16	Sep 18/17	Aug15/23
Viscosity @ 40°C	Sep18/17	Feb15/18	177	Jun15/16 Nov15/16	Sep18/17	Aug15/23
Viscosity @ 40°C	Sep18/17	Feb 15/18 Aug 15/23	177	Jun15/16 Nov15/16	Apr17/17 Sep 18/17 Feb 15/18	Aug15/23
Viscosity @ 40°C	<u></u>	\	9.0 (mg KOH/g)	Acid Number	\	~\^
Viscosity @ 40°C	Sep18/17 Sep18/17	Aug15/23 Feb15/18 Feb	9.0 (mg KOH/g)	Jun15/16 Nov15/16	Sep18/17 - Sep18/17 - Sep18/17 - Feb15/18	~\^





Laboratory

Sample No. : HPL0004788 Lab Number : 06185208 Unique Number : 11036534

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 May 2024

Tested : 21 May 2024 : 21 May 2024 - Wes Davis Diagnosed

MARATHON PETROLEUM CO. IL. REFININF DIVISION, 400 S MARATHON AVE ROBINSON, IL

US 62454 Contact: M.S. MANHART

Test Package : MOB 2 Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

mmanhart@marathonpetroleum.com T: (618)544-2121 F: x:

* - 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)

Contact/Location: M.S. MANHART - MARROB