

## **OIL ANALYSIS REPORT**

## ALLIS-CHALMERS U-31 GENERATOR Component

**Thrust Bearing** Fluid

NOT GIVEN (2000 GAL)

### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable. 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.





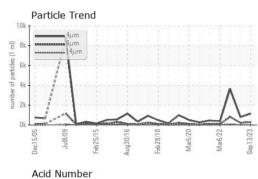
NORMAL

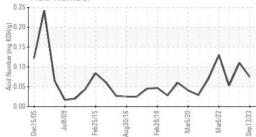
Sample Rating Trend

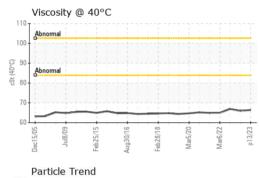
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0845027	WC0786713	WC0731028
Sample Date		Client Info		13 Sep 2023	03 Mar 2023	16 Sep 2022
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>85	0	0	0
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>40	0	<1	0
Lead	ppm	ASTM D5185m	>60	0	<1	0
Copper	ppm	ASTM D5185m	>7	2	5	5
Tin	ppm	ASTM D5185m	>40	<1	0	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		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	<1	1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		2	1	3
Calcium	ppm	ASTM D5185m		5	2	0
Phosphorus	ppm	ASTM D5185m		16	6	21
Zinc	ppm	ASTM D5185m		0	2	3
Sulfur	ppm	ASTM D5185m		154	171	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<1	0	<1
Sodium	ppm	ASTM D5185m		3	0	<1
Potassium	ppm	ASTM D5185m	>20	1	1	0
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1150	809	3644
Particles >6µm		ASTM D7647	>1300	280	216	826
Particles >14µm		ASTM D7647	>160	17	15	57
Particles >21µm		ASTM D7647	>40	2	2	9
Particles >38µm		ASTM D7647	>10	0	1	1
Particles >71µm		ASTM D7647		0	0	0
Oil Cleanliness		ISO 4406 (c)	>/17/14	17/15/11	17/15/11	19/17/13
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.075	0.11	0.053

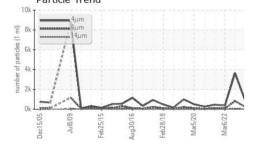


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					VISUAL		method	limit/base	current	history1	history2
					White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
					Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
					Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
			٨		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
			$-\Lambda$	1.12	Debris	scalar	*Visual	NONE	LIGHT	VLITE	NONE
~			1		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
0	Feb28/18 -	Mar5/20 -	Mar6/22	3/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Feb2	Mar	Mar	Sep 13/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
					Emulsified Water		*Visual	>2	NEG	NEG	NEG
					Free Water	scalar	*Visual		NEG	NEG	NEG
					FLUID PROPE	RTIES	method	limit/base	current	history1	history
					Visc @ 40°C	cSt	ASTM D445		66.4	65.9	66.9
			$\Lambda$		SAMPLE IMAC	GES	method	limit/base	current	history1	history
_	Feb28/18	Mar5/20 2	Mar6/22	Sep13/23	Color						
					Bottom						
			~		PrtFilter				no image	no image	no image
	Feb28/18	Mar5/20 -	Mar6/22	p13/23	GRAPHS				Dautiala Caund		
					Ferrous Alloys			491,52	Particle Count		T
				_	iron			122,880	1		
				mqq	5 - nickel			30,72			
					0						····
					ec15/05	0/16 8/18	Mar5/20 Mar6/22	1 ml)			-
					Dec15/05 Jul8/09 Feb25/15	Aug30/16 Feb28/18	Mari	089'2. 176'1 m]) 186 particles (per 1 m]) 187			
			Λ		Non-ferrous Me	etals		응 480	1		
-	~	~			15 <sub>1</sub>			12 12		•	
	110	20	22	F	10 - Lead			8			-
	Feb28/18	Mar5/20	Mar6/22	mqq	5tin			☐ 31	1		
	ш				1×1	And the owner of the		- and the second	Berevernal		
					Dec15/05 Jul8/09 Feb25/15	Aug30/16 Feb28/18	Mar5/20 Mar6/22	Sep 13/23	-		+
					Dec Ju Feb2	Aug Feb2	Ma	Sep		14.	28
					Viscosity @ 40°	°C		_	Acid Number	14µ 21µ	38µ 71j
					Abnormal			B/HO 0.30	יריייייייייייייייייייייי		
				cSt (40°C)				(0/H0.30 (0)/H00 (0)/ Wumper (0)/ Series (0)/ (0)/ (0)/ (0)/ (0)/ (0)/ (0)/ (0)/	Λ		
				cSt (4	80 - Abnormal			e 0.10			
					60			Nur Nur		$\sim \sim$	$\checkmark$
						0/16 -	Mar5/20 - Mar6/22 -	3/23	ec15/05	3/18	5/20 -
					Dec15/05 Jul8/09 Feb25/15	Aug30/16 Feb28/18	Mar5/20 Mar6/22	Sep 13/23	Dec15/05 Jul8/09 Feb25/15	Aug30/16 Feb28/18	Mar5/20 Mar6/22
				: WearCheck USA : WC0845027	- 501 Madi Receive		ary, NC 2751: Sep 2023	3 NEV	NEW YORK POWER AUTHOR PO BOX MASSENA, US 13 Contact: ANDY WESTMACO		

\* - 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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