

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Machine Id A104000016 Component Tank Hydraulic System Fluid PETRO CANADA ATF D3M (--- GAL)

DIAGNOSIS

Recommendation

The component was not specified, however we determined the component was a hydraulic system based on the type of fluid used. Please specify component type with your next sample. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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

	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0610832		
Sample Date		Client Info		13 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)		<1		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)	0	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	98	91		
		ASTM D5185(m)		<1		
	nom					
	ppm		<0.00	0		
Molybdenum	ppm	ASTM D5185(m)	<0.00	0		
Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1	0 3		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70	0 3 80		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1	0 3 80 226	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220	0 3 80 226 30	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70	0 3 80 226 30 817	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220 710	0 3 80 226 30		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220	0 3 80 226 30 817 <1 current	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220 710	0 3 80 226 30 817 <1 current 6		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220 710 limit/base	0 3 80 226 30 817 <1 current	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m)	<1 70 220 710 limit/base	0 3 80 226 30 817 <1 current 6	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220 710 limit/base >15	0 3 80 226 30 817 <1 current 6 2	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<1 70 220 710 limit/base >15 >20	0 3 80 226 30 817 <1 current 6 2 <1	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	<1 70 220 710 iimit/base >15 >20 limit/base	0 3 80 226 30 817 <1 current 6 2 <1 current	 history1 history1	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	<1 70 220 710 limit/base >15 >20 limit/base >40000	0 3 80 226 30 817 <1 current 6 2 <1 current 24717	 history1 history1 history1	 history2 history2
Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	<1 70 220 710 //////////////////////////////////	0 3 80 226 30 817 <1 current 6 2 <1 current 24717 3338	 history1 history1 history1	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	<1 70 220 710 //////////////////////////////////	0 3 80 226 30 817 <1 current 6 2 <1 current 24717 3338 48	 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	<1 70 220 710 imit/base >15 >20 imit/base >20 >200 >80 >20 >20 >4	0 3 80 226 30 817 <1 current 6 2 <1 current 24717 3338 48 9	 history1 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	<1 70 220 710 imit/base >15 >20 imit/base >20 >200 >80 >20 >20 >4	0 3 80 226 30 817 <1 current 6 2 <1 current 24717 3338 48 9 0	 history1 history1 history1	 history2

Page 1 of 2



OIL ANALYSIS REPORT

<u>Αρποπταίω</u> 6μm. 14μm	Acid Number (AN)	ATION mg KOH/g	Method ASTM D974*	limit/base	current 0.68	history1	history
1	Acid Number (AN)	iiiy KUH/g					
	VISUAL		method	limit/base	current	history1	history
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
		scalar	Visual*	NONE	NONE		
Jun 13/24	Silt Debris	scalar	Visual*	NONE	NONE		
5		scalar	Visual*	NONE	NONE		
Particle Trend	Sand/Dirt	scalar	Visual*	NONE	NONE		
4μm	Appearance Odor	scalar	Visual* Visual*	NORML NORML	NORML NORML		
Δημηρηγίας 6μm	Emulsified Water	scalar scalar	Visual*	>0.05	NEG		
	Free Water	scalar	Visual*	>0.05	NEG		
				l'as 1 /ls s s s			
	FLUID PROPER		method	limit/base	current	history1	history
		cSt	ASTM D7279(m)	34.11	30.6		
Jun 13/24	SAMPLE IMAGE	S	method	limit/base	current	history1	history
	7						
Acid Number	Color					no image	no image
Base							
	Bottom					no image	no image
	GRAPHS						
3/24 -	Ferrous Alloys				Particle Count		
Jun 13/24	10 T			491,52	0 Severe		Ι
Viscosity @ 40°C	E c united			122,88			
	E 5- minimum nickel			30,72	Abnormat		
Abnormal	0	*******		<u> </u>			-
Base	un13/24			Jun13/24 (per 1 ml)			
	un r			<u>a</u>			
	Non-ferrous Meta	als					
Abnormal	copper			lo apper of	0-	•	
124	E 5-			5	0 -	1	-
Jun 13/24	C				8		
	0 1 1			/24	2	/	
	Jun 13,			Jun13/24			
	→ Viscosity @ 40°C			,	Acid Number	14µ 21µ	38µ 71
	40 Abnormal						
	Page			ng KO	Base	*****	
	35 Base						
	35 Base 0 30 Abnomal				U +		
	G 33 G ⊕ 30 - ³ 25 - Abnormal			d Numbe			
	35 + Base 30 + Base 30 + Base 40 - Base 25 - Base 20 + Company 20			Jun 13/24 + Acid Number (mg KOH(g)	Jun 13/24		

Report Id: SKYGUE [WCAMIS] 02642331 (Generated: 06/18/2024 12:35:14) Rev: 1

Contact/Location: Vishal Kanwar - SKYGUE Page 2 of 2