

OIL ANALYSIS REPORT







KEMP QUARRIES / HULBERT WL136

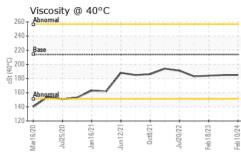
Component Rear Right Final Drive Fluid

PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

			wazozo Ju	lippit/boog	ourroat	bietorut	history
DIAGNOSIS	SAMPLE INFO			limit/base		history1	history2
Recommendation	Sample Number		Client Info		PCA0086093	PCA0109251	PCA0086140
Resample at the next service interval to monitor.	Sample Date		Client Info		10 Feb 2024	18 Nov 2023	18 Feb 2023
Wear	Machine Age	hrs	Client Info		32742	32316	30776
All component wear rates are normal.	Oil Age	hrs	Client Info		0	0	0
Contamination	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
here is no indication of any contamination in the	Sample Status				NORMAL	NORMAL	NORMAL
	CONTAMINA	TION	method	limit/base	current	history1	history2
luid Condition The condition of the oil is acceptable for the time in	Water		WC Method	>0.2	NEG	NEG	NEG
ervice.	WEAR META	LS	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>800	59	64	48
	Chromium	ppm	ASTM D5185m	>10	<1	0	<1
	Nickel	ppm	ASTM D5185m	>5	0	0	0
	Titanium	ppm	ASTM D5185m	>15	<1	<1	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>75	2	1	2
	Lead	ppm	ASTM D5185m		0	0	<1
	Copper	ppm	ASTM D5185m		18	18	9
	Tin	ppm	ASTM D5185m		0	0	0
	Vanadium	ppm	ASTM D5185m		0	0	0
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	2	4	7	4
	Barium	ppm	ASTM D5185m	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	0	1	2	2
	Manganese	ppm	ASTM D5185m	0	0	0	<1
	Magnesium	ppm	ASTM D5185m		23	24	25
	Calcium	ppm	ASTM D5185m		2819	3122	3068
	Phosphorus	ppm	ASTM D5185m		1044	1063	950
	Zinc	ppm	ASTM D5185m		1244	1224	1232
	Sulfur	ppm	ASTM D5185m		5572	5555	6286
	CONTAMINA	NTS	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185m	>400	15	16	13
	Sodium	ppm	ASTM D5185m		<1	0	<1
	Potassium	ppm	ASTM D5185m	>20	1	3	0
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	MODER	LIGHT
	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	VLITE
	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	>0.2	NEG	NEG	NEG
				~U.L	NEG	NEG	NEG
	Free Water	scalar	*Visual				



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				sc @ 40°				ASTM D			0.00	185	rrast		185 biot	ond		84 biotor	
	~			SAMPL	e IIVI	AGE	5	metho	Dd	limit/b	ase	CU	rrent		hist	ory1	1	histor	'y2
Juni 2/21 + 0ct8/21 + Jul20/22 +	/22 -	/23 /24	Co	lor								no ir	nage		no im	age	n	imag	je
	Jul20	Feb18/23 Feb10/24	Bo	Bottom								no ir	nage		no image		no image		
			(GRAPH	S									1			1		
			I 2000 т	ron (ppn	n)						30		(ppm)						
			1500 - 6	severe							25	Severe				-			
			E 1000								20 법급 15								
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			50-								10 5								1
			0	/20	5/21	2/21-	0ct8/21	/22	/23	/24	0		/20+	5/21	2/21	0ct8/21	/22	/23	ţ
			00/31reM		Jan 16/21	Jun12/21	Octl	Jul20/22	Feb18/23	Feb10/24		Mar16/20	Jul25/20	Jan 16/21	Jun12/21	Octl	Jul20/22	Feb18/23	
			200 T	Copper (opm)						1000	т з – – з – -	ר (ppm	ו)					
			150 -	Severe							800	Severe							
			틆 100 -	1							600 Ed 400	Abnorma	1						
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			Mar16.20	Jul25/20	Jan 16/21	Jun12/21	0ct8/21	Jul20/22	Feb 18/23	Feb10/24		Mar16/20	Jul25/20	Jan 16/21	Jun12/21	0ct8/21	Jul20/22	Feb 18/23	
			١	/iscosity	-			-				Additi		-	,		-		
		260 T d 240 -	Abnormal							3500 3000		calcium			/	-		1	
			220 -	Base							2500 = 2000	-	🐜 phosph	onus					
			200 (40°C) St (40°C)			1					2000 1500 1000		1						
			140 -	Abnormal							500	-		122224			California a constant		
			120	Jul25/20 -	Jan 16/21	Jun12/21	0ct8/21+	Jul20/22 -	Feb18/23 -	Feb10/24	0	Mar16/20	Jul25/20 +	Jan 16/21	Jun12/21	0ct8/21+	Jul20/22 -	Feb18/23	-
			Marl	Juľ	Jan	Jun	00	Jul	Feb 1	Feb1		Marl	Jul	Jan	Jun	00	Jul	Feb1	
Cate L2367	Sa La Uni Tes	boratory mple No. b Numbe que Numbe at Packag	: PCA er: 061 er: 109	11818 3 1	3	-	Receiv Testeo Diagn	ved d osed	: 04 : 05 : 05	Mar 20 Mar 20 Mar 202	24 24	es Davi		o Qua		Kemp	H	01 Hw ulbert US 74 Cont	ry 8 , O 444 tact

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