

## **OIL ANALYSIS REPORT**

Area OKLAHOMA/102/EG - EXCAVATOR 20.512L [OKLAHOMA^102^EG - EXCAVATOR]



oil.

Rear Right Final Drive MOBIL MOBILTRANS HD 50 (--- GAL)

Pre-commendation         WC082177         WC08177         WC082177         WC08177         W	DIAGNOSIS	SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
No corrective action is recommended at this time.         Sample Date         Client Info         102 June 2024         28 Oct 2023         27 Jan 2004           Wara         An increase in the iron level is noted. All other component were rates are normal.         Sample Status         Total other Status         B89         6840         Changed         Changed<	Recommendation	Sample Number		Client Info		WC0945635	WC0821774	WC0634206
Ream product       Interaces on the iron level is noted. All other component wear rates are normal.       Obli Age       Ins       Client Info       916       Obli Age       Not Changed       Cha	No corrective action is recommended at this time.	Sample Date		Client Info		02 Jul 2024	28 Oct 2023	27 Jan 2023
Waar     Oil Age     Inter.     Client Info     705     899     6840       An incraces in the ion level is noted. All other component waar rates are normal.     Oil Age     Client Info     Not Changed     Client Info     Not Changed     NorMAL     NO	Resample at the next service interval to monitor.	Machine Age	hrs	Client Info		9140	8435	7536
Air increase in the iron level is noted. All other component warr is as are normal.       Othangad       Changad       NORMAL	ear Vear	Oil Age	hrs	Client Info		705	899	6840
Component wear rates are normal.         Sample Status         ATTENTION         NORMAL         NORMAL           Contamination         There is no indication of any contamination in the oil.         Indication         Indication         Indication         Indication         NEG         NEG         NEG         NEG           Fluid Condition         The condition of the oil is acceptable for the time in so indication of the oil is acceptable for the time in so indication of the oil is acceptable for the time in so indication of the oil is acceptable for the time in so indication of the oil is acceptable for the time in the o	An increase in the iron level is noted. All other	Oil Changed		Client Info		Not Changd	Changed	Changed
Contamination There is no indication of any contamination in the oil.       CONTAMINATION       matrixed       imitbace       current       initiany       initiany         Fluid Condition Earvice.       Fluid Condition       NEG       NEG       NEG       NEG         Vieter       WC Method       >.0.2       NEG       NEG       NEG         The condition of the oil is acceptable for the time in service.       initianum       ppm       ASTM 05585       >.50       -1       0       0         Chromium ppm       ASTM 05585       >.55       -1       0       0       0         Silver       ppm       ASTM 05585       >.15       2       -1       -1       -1       -1       0       0         Aluminum       ppm       ASTM 05585       >.10       0<	component wear rates are normal.	Sample Status				ATTENTION	NORMAL	NORMAL
Note     Worker     WO Method     >0.2     NEG     NEG       Fluid Condition     Weater     WO Method     >0.2     NEG     NEG       Fluid Condition     ppm     ASTM DB188     >800     Current     Indroy     Indroy       fron     ppm     ASTM DB188     >800     Corrent     Indroy     Indroy       Glin     ppm     ASTM DB188     >800     Carrent     Indroy       Glin     ppm     ASTM DB188     >800     Carrent     Indroy       Mickel     ppm     ASTM DB188     >10     2     <1     <1       Mickel     ppm     ASTM DB188     >10     20     <1     <11       Lead     ppm     ASTM DB188     >10     0     0     <10       Norm     ppm     ASTM DB188     >10     0     0     <10       Variantian     ppm     ASTM DB188     >10     0     0       Variantian     ppm     ASTM DB188     >10     0     0       Variantian     ppm     ASTM DB188     >10     0     0       Variantian     ppm     ASTM DB188     >10     21     0       Variantian     ppm     ASTM DB188     20     21     21	Contamination There is no indication of any contamination in the	CONTAMINATIO	N	method	limit/base	current	history1	history2
Fluid Condition         method         instacceptable for the time in service.         Method is acceptable for the time in service.         Part METALS         method         instact         history1         history1         history1         history1           Iron         ppm         ASTM 05186         >800         603         183         160           Chromium         ppm         ASTM 05186         >10         2         <1	oil.	Water		WC Method	>0.2	NEG	NEG	NEG
iron         ppm         ASTM (515m         >=00         603         183         160           Chromium         ppm         ASTM (515m         >=10         2         <1	Fluid Condition	WEAR METALS		method	limit/base	current	history1	history2
Chromium       ppm       ASTM 0515m       >5       <1       0       0         Nickel       ppm       ASTM 0515m       >5       <1	service.	Iron	ppm	ASTM D5185m	>800	603	183	160
Nickel         ppm         ASTM 05186n         >15         2         <1         0           Titanium         ppm         ASTM 05186n         >2         <1		Chromium	ppm	ASTM D5185m	>10	2	<1	<1
Titanium       ppm       ASTM 05/85n       >15       2       <1       <1         Silver       ppm       ASTM 05/85n       >2       <1		Nickel	ppm	ASTM D5185m	>5	<1	0	0
Silver       ppm       ASTM DS185n       >-2       <1       0       0         Auminum       ppm       ASTM DS185n       >-10       0       0       0         Copper       ppm       ASTM DS185n       >-10       0       0       0         Copper       ppm       ASTM DS185n       >-75       2       0       0       0         Vanadium       ppm       ASTM DS185n       -       -       1       0       0       0         Cadmium       ppm       ASTM DS185n       -       -       1       0		Titanium	ppm	ASTM D5185m	>15	2	<1	<1
Aluminum         ppm         ASTM 2585m         >75         23         8         11           Lead         ppm         ASTM 2585m         >10         0         0         0           Copper         ppm         ASTM 2585m         >10         0         0         0           Tin         ppm         ASTM 2585m         >8         0         0         0           Qanadinum         ppm         ASTM 2585m         0         0         0         0           Cadmium         ppm         ASTM 2585m         0         0         0         0           ADDTTVES         method         Imit/base         current         History1         history1           Barium         ppm         ASTM 2585m         6         4         1         1           Magnesium         ppm         ASTM 2585m         29         32         25           Calcium         ppm         ASTM 2585m         29         32         25           Calcium         ppm         ASTM 2585m         107         894         1053           Zine         ppm         ASTM 2585m         107         894         1053           Zine         ppm         AS		Silver	ppm	ASTM D5185m	>2	<1	0	0
Lead         ppm         ASTM 05185m         >10         0         0         0           Copper         ppm         ASTM 05185m         >75         2         0         <1		Aluminum	ppm	ASTM D5185m	>75	23	8	11
Copper         ppm         ASTM D5185m         >75         2         0         <1           Tin         ppm         ASTM D5185m         >8         0         0         0           Vanadium         ppm         ASTM D5185m         <		Lead	ppm	ASTM D5185m	>10	0	0	0
Tin         ppm         ASTM D5185m         >8         0         0         0           Vanadium         ppm         ASTM D5185m         <1		Copper	ppm	ASTM D5185m	>75	2	0	<1
Vanadium         ppm         ASTM D5185m		Tin	ppm	ASTM D5185m	>8	0	0	0
CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history1BoronppmASTM D5185m898BariumppmASTM D5185m443ManganeseppmASTM D5185m411MagnesiumppmASTM D5185m293225CalciumppmASTM D5185m293225CalciumppmASTM D5185m10718941053ZincppmASTM D5185m120911451284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>209<1		Vanadium	ppm	ASTM D5185m		<1	0	0
ADDITIVESmethodlimit/basecurrenthistory1history1BoronppmASTM D5185m898BariumppmASTM D5185m<1		Cadmium	ppm	ASTM D5185m		0	0	0
BoronppmASTM D5185m898BariumppmASTM D5185m-100MolybdenumppmASTM D5185m443ManganeseppmASTM D5185m293225CalciumppmASTM D5185m29321298PhosphorusppmASTM D5185m331128042988PhosphorusppmASTM D5185m10718941053ZincppmASTM D5185m10718941053ZincppmASTM D5185m956880629994SulfurppmASTM D5185m4001594955SodiumppmASTM D5185m209<1		ADDITIVES		method	limit/base	current	history1	history2
BariumppmASTM D5185m<100MolybdenumppmASTM D5185m443ManganeseppmASTM D5185m293225CalciumppmASTM D5185m293242988PhosphorusppmASTM D5185m10718941053ZincppmASTM D5185m10718941053ZincppmASTM D5185m10718941284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m>209<1		Boron	ppm	ASTM D5185m		8	9	8
MolybdenumppmASTM D5185m443ManganeseppmASTM D5185m293225CalciumppmASTM D5185m2932298PosphorusppmASTM D5185m10718941053ZincppmASTM D5185m10718941053ZincppmASTM D5185m120911451284SulfurppmASTM D5185m120911451284SulfurppmASTM D5185m2956880629994CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m>209<1		Barium	ppm	ASTM D5185m		<1	0	0
ManganeseppmASTM D5185m411MagnesiumppmASTM D5185m293225CalciumppmASTM D5185m331128042988PhosphorusppmASTM D5185m10718941053ZincppmASTM D5185m120911451284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m031PotassiumppmASTM D5185m209<1		Molybdenum	ppm	ASTM D5185m		4	4	3
MagnesiumppmASTM D5185m293225CalciumppmASTM D5185m331128042988PhosphorusppmASTM D5185m10718941053ZincppmASTM D5185m120911451284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodtimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m>209<1		Manganese	ppm	ASTM D5185m		4	1	1
CalciumppmASTM D5185m331128042988PhosphorusppmASTM D5185m10718941053ZincppmASTM D5185m120911451284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m>209<1		Magnesium	ppm	ASTM D5185m		29	32	25
PhosphorusppmASTM D5185m10718941053ZincppmASTM D5185m120911451284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodlimit/basscurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m>4001594955SodiumppmASTM D5185m>209<1		Calcium	ppm	ASTM D5185m		3311	2804	2988
ZincppmASTM D5185m120911451284SulfurppmASTM D5185m956880629994CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m031PotassiumppmASTM D5185m>209<1		Phosphorus	ppm	ASTM D5185m		1071	894	1053
SulfurppmASTM D5185m956880629994CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m031PotassiumppmASTM D5185m>209<1		Zinc	mag	ASTM D5185m		1209	1145	1284
CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m031PotassiumppmASTM D5185m>209<1		Sulfur	ppm	ASTM D5185m		9568	8062	9994
SiliconppmASTM D5185m>4001594955SodiumppmASTM D5185m031PotassiumppmASTM D5185m>209<1		CONTAMINANTS	3	method	limit/base	current	history1	history2
SodiumppmASTM D5185m031PotassiumppmASTM D5185m>209<1		Silicon	ppm	ASTM D5185m	>400	159	49	55
PotassiumppmASTM D5185m>209<14VISUALmethodlimit/basecurrenthistory1history1White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG		Sodium	ppm	ASTM D5185m		0	3	1
VISUALmethodlimit/basecurrenthistory1history1White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG		Potassium	ppm	ASTM D5185m	>20	9	<1	4
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONENONESiltscalar*VisualNONENONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGNEG		VISUAL		method	limit/base	current	history1	history2
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGNEGFree Waterscalar*Visual*VisualNEGNEGNEGNEG		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Odorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG		Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Waterscalar*Visual>0.2NEGNEGFree Waterscalar*VisualNEGNEGNEG		Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG

Report Id: SHEWIC [WUSCAR] 06235251 (Generated: 07/15/2024 12:24:03) Rev: 1

Page 1 of 2



## **OIL ANALYSIS REPORT**



FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	195	185	190	200
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS						



SHERWOOD CONSTRUCTION CO INC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0945635 Received : 12 Jul 2024 3219 WEST MAY ST Lab Number : 06235251 Tested : 15 Jul 2024 WICHITA, KS Unique Number : 11124085 US 67213 Diagnosed : 15 Jul 2024 - Sean Felton Test Package : CONST Contact: DOUG KING Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. doug.king@sherwood.net T: (316)617-3161 \* - 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) F: x:

Submitted By: RUSTY RILEY

Page 2 of 2