**WEAR CONTAMINATION FLUID CONDITION**  **NORMAL NORMAL NORMAL** 

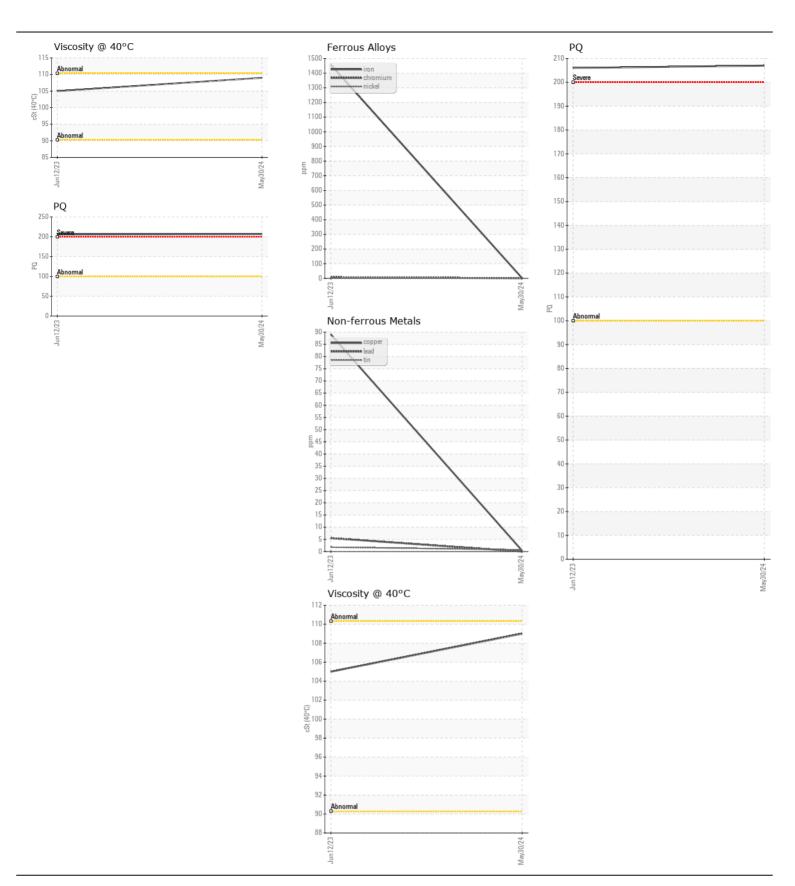
[SPARTAN RENTAL]

## HAMM H12iP H284.0289 (S/N WGH0H284VAA00289)

Left Vibratory Drum Gearbox

HAMM GEAR OIL (--- PNT)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214597	JR0181855	
Sample Date		Client Info		30 May 2024	12 Jun 2023	
Machine Age	hrs	Client Info		1473	805	
Oil Age	hrs	Client Info		1473	805	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Not Changd	
Filter Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	ABNORMAL	
PQ		ASTM D8184		207	206	
Iron	ppm	ASTM D5185m	>200	2	<u> </u>	
Chromium				<1	7	
Nickel	ppm			<1	1	
Titanium	ppm	ASTM D5185m		<1	5	
Silver	ppm	ASTM D5185m		<1	0	
Aluminum	ppm	ASTM D5185m		9	4	
Lead	ppm	ASTM D5185m		0	6	
Copper	ppm	ASTM D5185m		<1	89	
Tin	ppm	ASTM D5185m		<1	2	
Vanadium	ppm	ASTM D5185m		1	<1	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m		2	34	
Potassium	ppm	ASTM D5185m	>20	7	2	
Water			>0.2	NEG	NEG	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Sodium	nnm	ASTM D5185m		26	9	
Manganese	ppm	ASTM D5185m		<1	13	
_	ppm	ASTM D5185m		12	8	
Magnesium	PP					
Magnesium Calcium		ASTM D5185m		33	43	
Calcium	ppm	ASTM D5185m		33 18	43 1248	
Calcium Phosphorus	ppm	ASTM D5185m		18	1248	
Calcium	ppm					
	Sample Number Sample Date Machine Age Oil Age Filter Age Oil Changed Filter Changed Sample Status PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium White Metal Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	Sample Number Sample Date Machine Age hrs Oil Age hrs Filter Age hrs Oil Changed Filter Changed Sample Status  PQ Iron ppm Chromium ppm Nickel ppm Titanium ppm Silver ppm Aluminum ppm Lead ppm Copper ppm Tin ppm Vanadium ppm White Metal scalar Yellow Metal scalar Silicon ppm Potassium ppm Water Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Codor scalar Emulsified Water scalar Sodium ppm Boron ppm Boron ppm Barium ppm Molybdenum ppm	Sample Number Sample Date  Machine Age Dilent Info  Machine Age Dilent Info  Oil Age Dilent Info  Filter Age Dilent Info  Client Info  Sample Status  PQ ASTM D8184  Iron Dpm ASTM D5185m  Chromium Dpm ASTM D5185m  Nickel Dpm ASTM D5185m  Aluminum Dpm ASTM D5185m  Aluminum Dpm ASTM D5185m  Copper Dpm ASTM D5185m  Copper Dpm ASTM D5185m  Vanadium Dpm ASTM D5185m  Visual  Silicon Dpm ASTM D5185m  Vater WC Method  Silt Scalar Visual  Silt Scalar Visual  Debris Scalar *Visual  Debris Scalar *Visual  Appearance Scalar *Visual  Appearance Scalar *Visual  Sand/Dirt Scalar *Visual  Appearance Scalar *Visual  Sodium Dpm ASTM D5185m  Boron Dpm ASTM D5185m  Boron Dpm ASTM D5185m  Barium Dpm ASTM D5185m	Sample Number Sample Date Client Info Machine Age Oil Age hrs Client Info Client Info Oil Age hrs Client Info Filter Age Oil Changed Filter Changed Sample Status  PQ ASTM D8184 Iron Chromium ppm ASTM D5185m Potassium Ppm ASTM D5185m Copper ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Vone Visual NONE Silicon ppm ASTM D5185m Potassium NONE Sand/Dirt scalar *Visual NONE Sand/Dirt scalar *Visual NONE Sand/Dirt Appearance scalar *Visual NONE Sand/Dirt Appearance scalar *Visual NORML	Sample Number         Client Info         JR0214597           Sample Date         Client Info         30 May 2024           Machine Age         hrs         Client Info         1473           Oil Age         hrs         Client Info         0           Filter Age         hrs         Client Info         0           Oil Changed         Client Info         N/A           Filter Changed         Client Info         N/A           Sample Status         NORMAL           PQ         ASTM D8184         207           Iron         ppm         ASTM D5185m         >200         2           Chromium         ppm         ASTM D5185m         >10         <1	Sample Number         Client Info         JR0214597         JR0181855           Sample Date         Client Info         30 May 2024         12 Jun 2023           Machine Age         hrs         Client Info         1473         805           Oil Age         hrs         Client Info         1473         805           Filter Age         hrs         Client Info         Changed         Not Changd           Filter Changed         Client Info         N/A         N/A           Sample Status         NORMAL         ABNORMAL           PQ         ASTM D8184         207         206           Iron         ppm         ASTM D5185m         >200         2         1457           Chromium         ppm         ASTM D5185m         >10         <1





Laboratory Sample No.

: JR0214597 Lab Number : 06196910 Unique Number : 11059033

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

**Tested** Diagnosed Test Package : CONST ( Additional Tests: PQ )

: 03 Jun 2024 : 03 Jun 2024 - Wes Davis

: 31 May 2024

MANASSAS PARK, VA US 20111 Contact: DON VEST

dvest@jamesriverequipment.com T: (703)631-8500

JRE - MANASSAS PARK

9107 OWENS DRIVE

To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - 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: (703)631-4715