



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**SHELL HYDRAULIC S1 M46**

Component  
**New (Unused) Oil**

Fluid  
**{not provided} (--- QTS)**

**RECOMMENDATION**

This is a baseline read-out on the submitted sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR04693490	---	---
Sample Date		Client Info		06 Apr 2019	---	---
Machine Age	mls	Client Info		0	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

**WEAR**

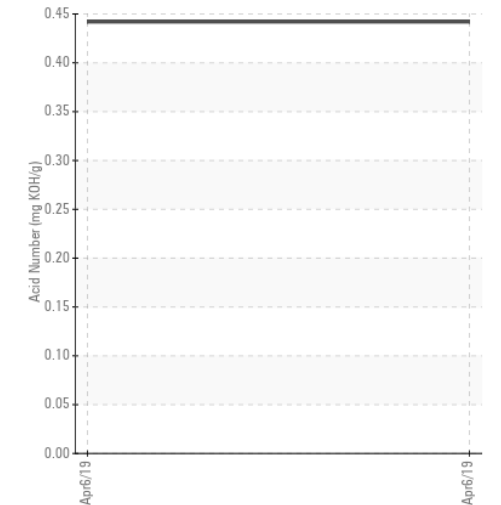
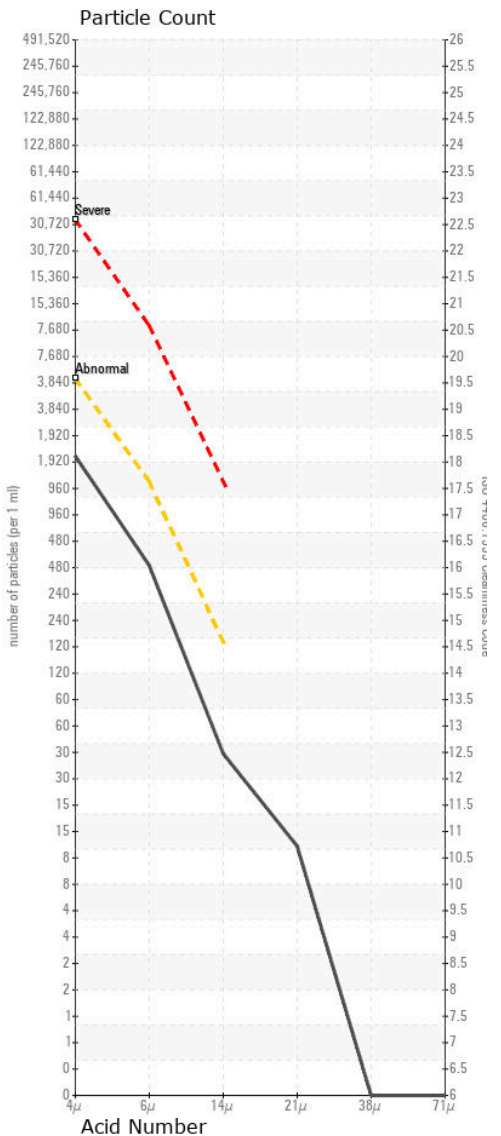
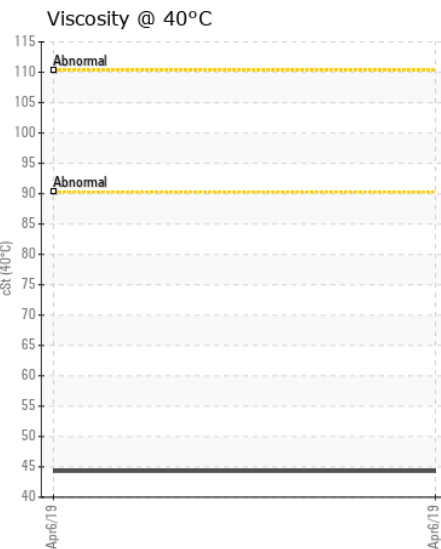
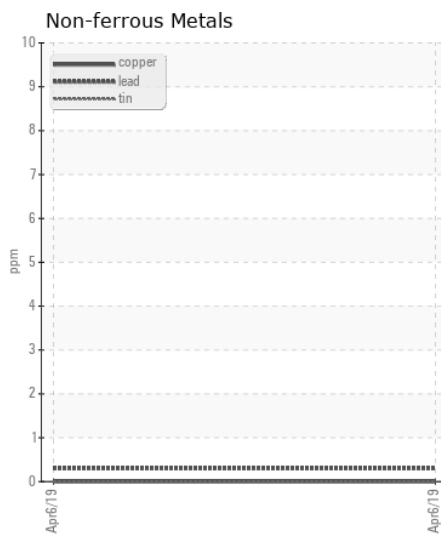
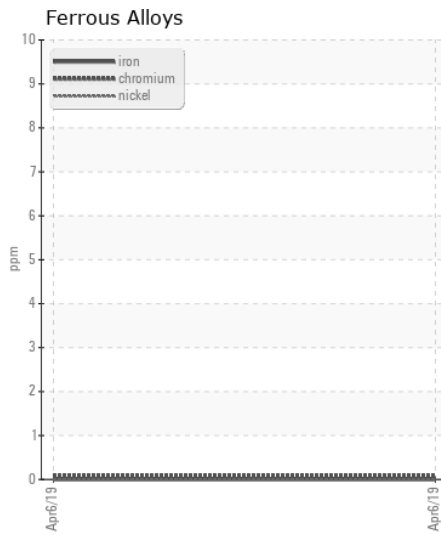
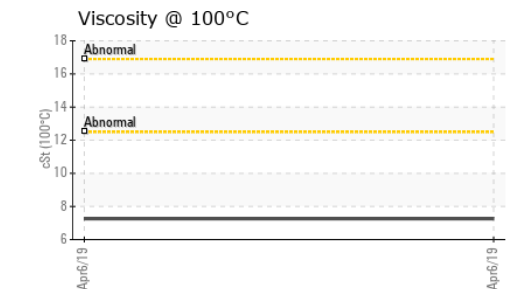
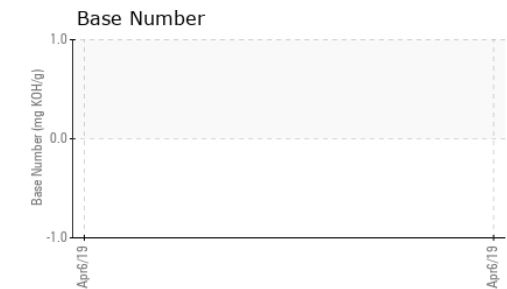
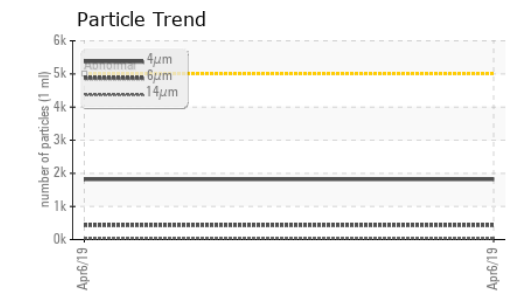
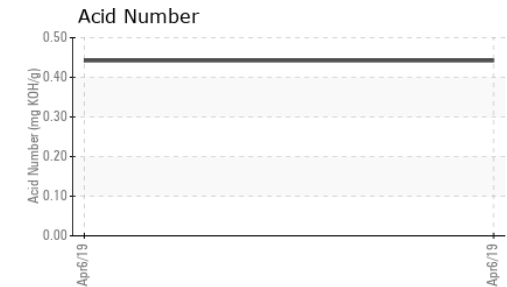
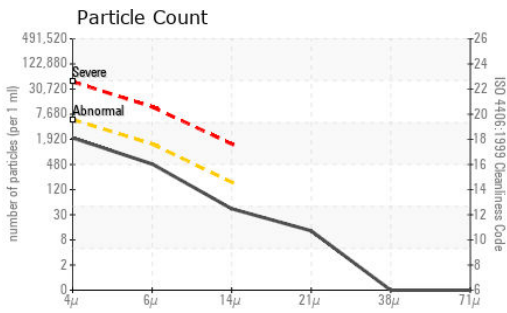
Iron	ppm	ASTM D5185m		0	---	---
Chromium	ppm	ASTM D5185m		<1	---	---
Nickel	ppm	ASTM D5185m		0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m		0	---	---
Lead	ppm	ASTM D5185m		<1	---	---
Copper	ppm	ASTM D5185m		0	---	---
Tin	ppm	ASTM D5185m		0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

**CONTAMINATION**

Silicon	ppm	ASTM D5185m		<1	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water		WC Method		NEG	---	---
Particles >4µm		ASTM D7647	>5000	1818	---	---
Particles >6µm		ASTM D7647	>1300	433	---	---
Particles >14µm		ASTM D7647	>160	37	---	---
Particles >21µm		ASTM D7647	>40	11	---	---
Particles >38µm		ASTM D7647	>10	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/16/12	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	VLITE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual		NEG	---	---

**FLUID CONDITION**

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		<1	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		0	---	---
Calcium	ppm	ASTM D5185m		146	---	---
Phosphorus	ppm	ASTM D5185m		225	---	---
Zinc	ppm	ASTM D5185m		255	---	---
Sulfur	ppm	ASTM D5185m		502	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.442	---	---
Visc @ 40°C	cSt	ASTM D445		44.3	---	---
Visc @ 100°C	cSt	ASTM D445		7.26	---	---
Viscosity Index (VI)	Scale	ASTM D2270		126	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR04693490 **Received** : 16 Apr 2019  
**Lab Number** : 04693490 **Tested** : 19 Apr 2019  
**Unique Number** : 8565007 **Diagnosed** : 19 Apr 2019 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: FT-IR, KV100, PrtCount, TBN, VI )

**NORMAN MASSON**  
 10818 LINDBLADE ST  
 CULVER CITY, CA  
 US 90230  
 Contact: NORMAN MASSON

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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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F: