



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
DAVEY DRILL 219R

Component
Hydraulic System

Fluid
TRC HYDRAULIC OIL ISO 32- SAE10W (130 GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

WEAR

All component wear rates are normal.

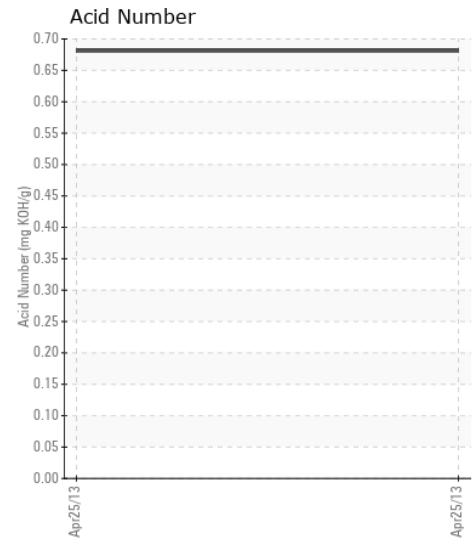
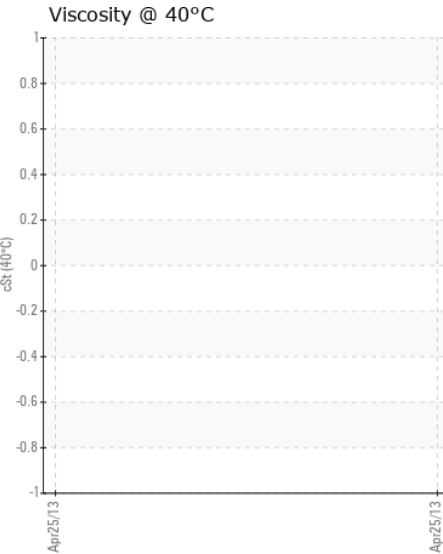
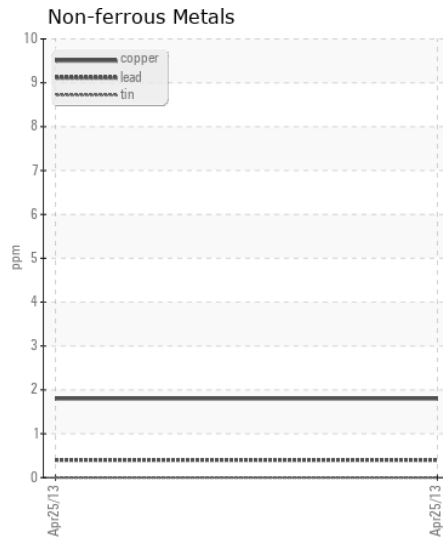
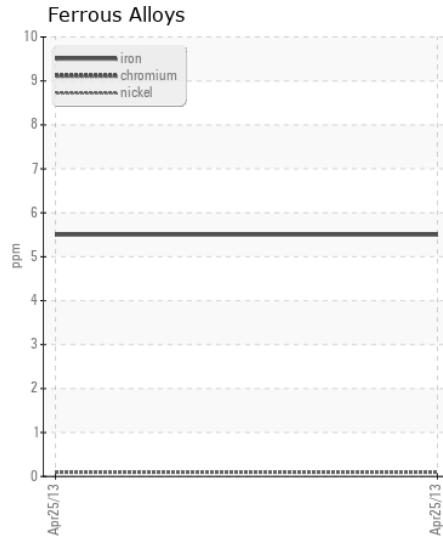
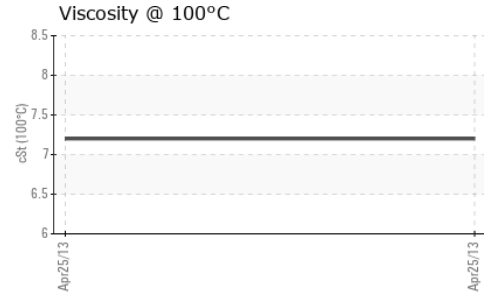
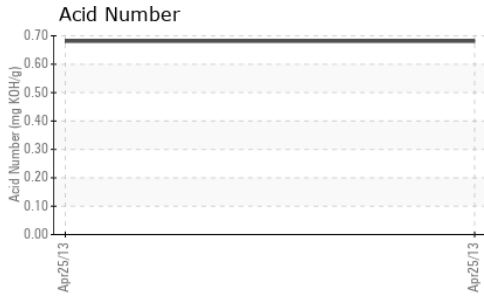
CONTAMINATION

High concentration of visible dirt/debris present in the oil.

FLUID CONDITION

The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR03277529	---	---
Sample Date		Client Info		25 Apr 2013	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m		6	---	---
Chromium	ppm	ASTM D5185m		<1	---	---
Nickel	ppm	ASTM D5185m		<1	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m		1	---	---
Lead	ppm	ASTM D5185m		<1	---	---
Copper	ppm	ASTM D5185m		2	---	---
Tin	ppm	ASTM D5185m		0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	LIGHT	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m		3	---	---
Potassium	ppm	ASTM D5185m		0	---	---
Water		WC Method		NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ HEAVY	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual		NEG	---	---
Sodium	ppm	ASTM D5185m		2	---	---
Boron	ppm	ASTM D5185m		1	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		0	---	---
Calcium	ppm	ASTM D5185m		112	---	---
Phosphorus	ppm	ASTM D5185m		377	---	---
Zinc	ppm	ASTM D5185m		448	---	---
Sulfur	ppm	ASTM D5185m		2555	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.681	---	---
Visc @ 100°C	cSt	ASTM D445		7.2	---	---
Fluid Type		*In-house		ISO_HYD_AW_LO	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR03277529
Lab Number : 03277529
Unique Number : 6250187
Test Package : MOB 2 (Additional Tests: Bottom, FluidDetermination, KV100)

Received : 02 May 2013
Tested : 10 May 2013
Diagnosed : 10 May 2013 - Doug Bogart

BUFFALO DRILLING
 12264 MAIN RD.
 AKRON, NY
 US 14001

Contact: MIKE GERSTUNG
 mikegerstung@yahoo.com

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: