

C Code : 32001
 U Name :
 T
 O Address : 100/58 Sathorn Nakorn Tower 28th Fl.,
 M North Sathorn Rd., Khwaeng Silom,
 E Khet Bangrak, Bangkok 10500
 R
 Site :
 Location : Songkla
 Test code : 804

Unit ID : PAWK E 00942 Pump
 Unit Type : Pump
 Unit Make : FMC
 Unit Model : Q1828 API
 Oil type/
 Viscosity : CASTROL
 Oil System Capacity : 100 Liters



Notes (Finding, Evaluation, Interpretation, Suggestion and Recommendation)

Components of dirt (silicon) slightly above normal, however, no abrasive wear noted.
 All wear conditions and wear tests appear in normal working range.
 All oil conditions and oil tests appear in normal working range.
 Recommend check to determine how dirt is entering the system and correct the problem to prevent further dirt entry.

Somchai J.

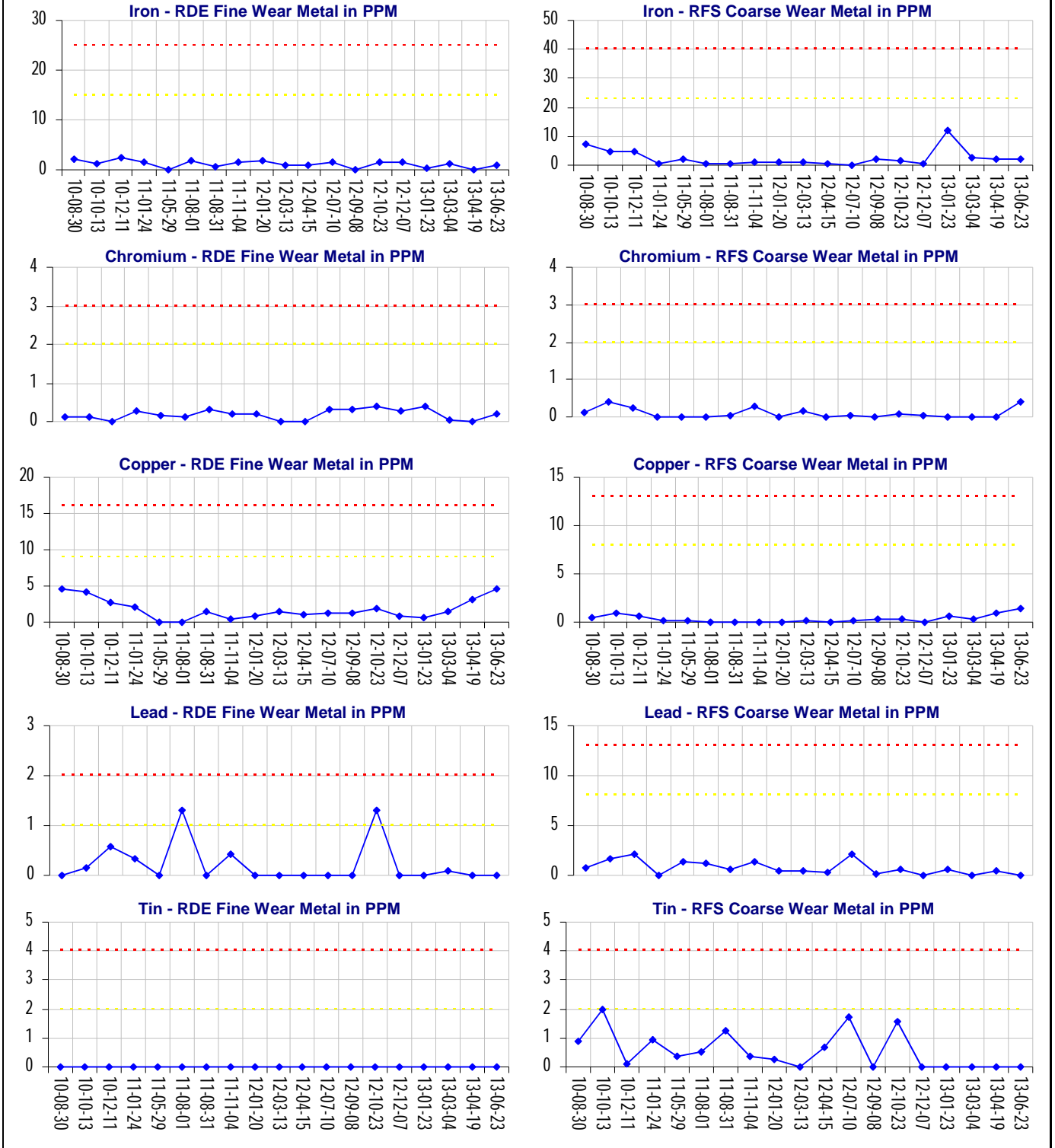
Condition History			Current Sample			Previous Sample			Baseline and Alarm Limit				
Wear	Oil	Cont.	Wear	Oil	Cont.	Wear	Oil	Cont.	Alarm Limit				
N	N	C	N	N	C	N	C	C	Alarm Limit Matrix -Set Name (Equipment type / oil type)				
									Pump General Castrol Duratec L (Exterran)				
Lab ID	Test Method	Result	222939	216293	213027								
Bottle ID			1012317	1011914	955332								
Date Sampled			23-Jun-13	19-Apr-13	04-Mar-13								
Oil Hours (Kms)			4407 *	2902 *	1915								
Unit Hours (Kms)			31302	29797	28810								
Filters Hours (Kms)			4407	2902	1915								
Wear Condition									Reference Oil (RO)	RDE fine		RFS coarse	
Wear Element	Method	Unit	RDE fine	RFS coarse	RDE fine	RFS coarse	RDE fine	RFS coarse	U-Caution	U-Warning	U-Caution	U-Warning	
Iron	D-6595	PPM	1.0	2.3	0.1	2.0	1.3	2.4	0	>15	>25	>23	>40
Chromium	D-6595	PPM	0.2	0.4	0.0	0.0	0.0	0.0	0	>2	>3	>2	>3
Lead	D-6595	PPM	0.0	0.0	0.0	0.5	0.1	0.1	0	>1	>2	>8	>13
Copper	D-6595	PPM	4.6	1.4	3.2	0.9	1.4	0.3	0	>9	>16	>8	>13
Tin	D-6595	PPM	0.0	0.0	0.0	0.0	0.0	0.0	0	>2	>4	>2	>4
Aluminum	D-6595	PPM	0.4	0.5	0.1	1.2	0.0	0.0	0	>1	>2	>2	>4
Nickel	D-6595	PPM	0.0	0.0	0.1	0.0	0.0	0.0	0	>1	>2	>2	>3
Silver	D-6595	PPM	0.0	0.1	0.0	0.0	0.0	0.0	0				
Molybdenum	D-6595	PPM	0.0	1.4	0.3	1.8	0.0	0.0	0				
Titanium	D-6595	PPM	0.0	2.3	0.0	2.5	0.0	1.6	0				
Oil Condition									RO	L-Warning	L-Caution	U-Caution	U-Warning
Viscosity @ 40°C	D-445	cSt							12.6	<11.3	<12	>13.2	>13.9
Viscosity @ 100°C	D-445	cSt	12.3		12.4		12.6		6.9		>8.6	>10.4	
Oxidation	FTIR	Abs	7.3		7.8		9.0 C		7.5		>9.3	>11.3	
Nitration	FTIR	Abs	8.2		8.9		9.6 C		1.00		>1.2	>1.5	
TAN	D-974	mg KOH/g.											
TBN	D-4739	mg KOH/g.											
Contamination									RO	U-Caution		U-Warning	
Water	T-H2O CheckTM	% (Wt.)	0.049		0.086 C		0.087 C		0.020		>0.06	>0.1	
Sodium	D-6595	PPM	2		3		3		12				
Silicon	D-6595	PPM	1.8	13.2 W	2.1	4.0	2.6	2.8	8	>15	>18	>5	>8
Additive Element									RO				
Boron	D-6595	PPM	111		113		122		152				
Magnesium	D-6595	PPM	8		7		7		11				
Calcium	D-6595	PPM	1095		1130		977		1071				
Barium	D-6595	PPM	0		0		0		0				
Phosphorus	D-6595	PPM	204		216		213		253				
Zinc	D-6595	PPM	261	50	276	93	329	29	342				
Additional Test									RO	L-Caution	L-Warning	U-Caution	U-Warning
Flash Point	D-3828	°C											
Viscosity Index	D-2270												

Note: Alarm Limits are variable and dependent upon dataset size and to be used as general guideline.
 No Sign or **N** : NORMAL, **C** or **▲** : CAUTION (first level warning limit), **W** or **■** : Warning (second level warning limit)
 U-Caution : Upper CAUTION Level, L-Caution : Lower CAUTION Level, First Level Alarm_Alert Limit in Upper Level and/or Lower Level
 U-Warning : Upper WARNING Level, L-Warning : Lower WARNING required Level, Second Level Alarm_Alert Limit in Upper Level and/or Lower Level
 Baseline will be data of either "The new oil" or "Reference oil" or "Oil specification". TNO = The new oil, RO = Reference oil, OS = Oil Specification
 Accuracy of interpretation and recommendation are based on representatives sample and information supplied. No warranty is expressed or implied for this report.

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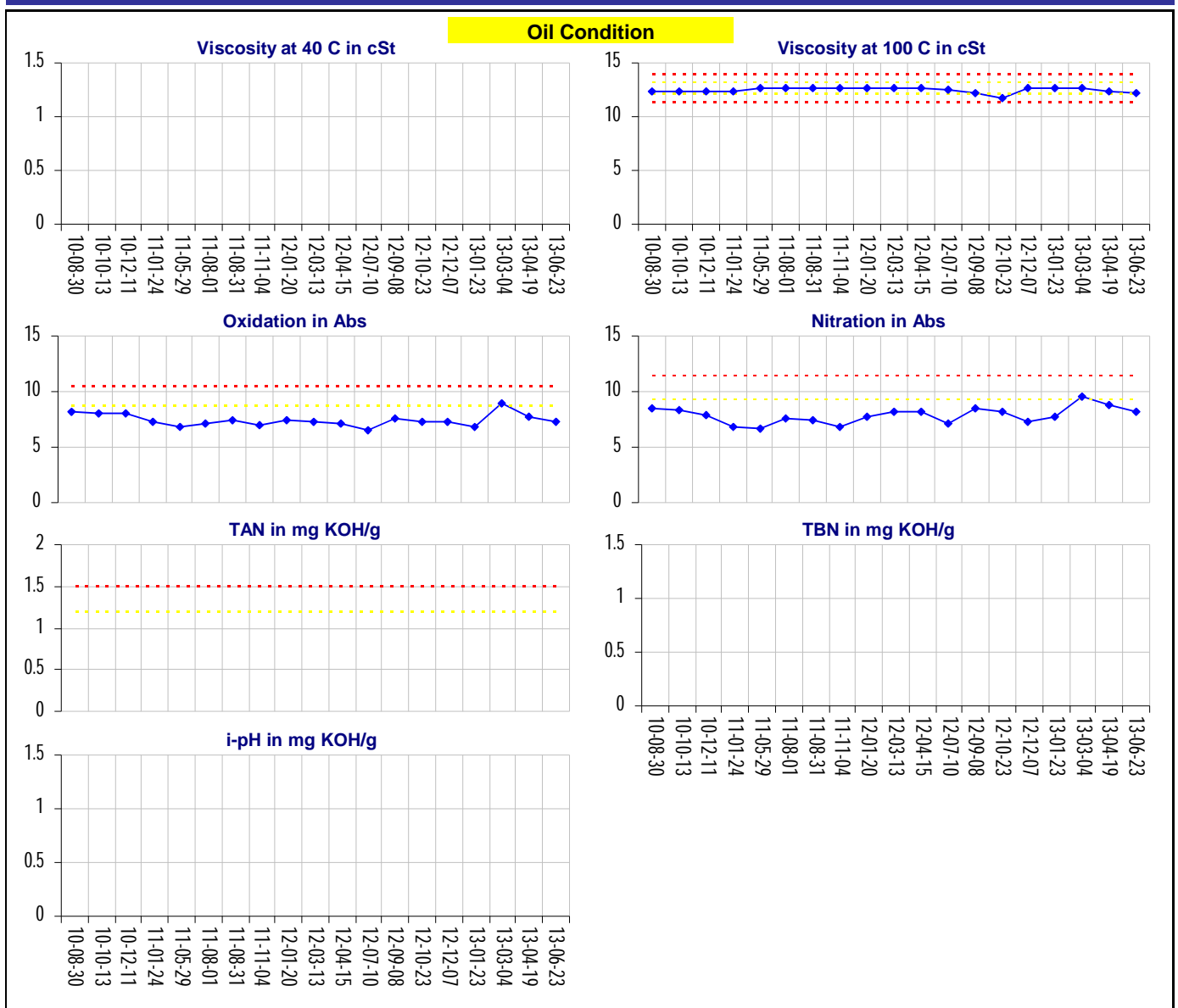
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 P Unit Model : Q1828 API
 M Oil type /
 E Viscosity : CASTROL
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 L Oil System Capacity : 100 Liters

Wear Condition



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