SCAQMD M313

VOC by GCMS/FID

Technical Discussion

October 30th, 2013

Agenda

1:00 pm	Welcome and Introductions
1:15 pm	Comments on M313
1:30 pm	Film Extraction: Methods and Results
2:30 pm	Compounds of Concern Compound, Concern, Methods
2:50 pm	Setting Next Date

Written Comments

Presentations

	Topic	Presenter
1.	Paint Film Extraction	Brad Parrack
2.	Compounds of Concern	Mike Gernon (Vantex T) + Open Floor

Paint Film Extraction

Brad Parrack

Samples	Compounds
High Gloss Sealer	Pentaethylene Glycol
Elastomeric Deck Coating	Dipropylene Glycol
Stain	Glycerol
Wiping Stain Base	1-Phenoxy-2-propanol
Swimming Pool Paint	TXIB
High Gloss Sealer	Texanol

Film Preparation

~20 g/L
glycerin spike

0.4 g sample
per pan

Film Preparation

0.4 g sample
per pan

60 minutes
110 Degrees

Film Preparation

60 minutes
110 Degrees

Cut Into Strips

9

Film Extraction

Cut Into Strips

Diluted in Solvent &
Internal Standard

10

Film Extraction

Diluted in Solvent &
Internal Standard

Sonicated
25 Minutes

11

Film Extraction

Sonicated
25 Minutes

Mixed
24 Hours

12

Film Extraction

Mixed
24 Hours

Analyze on
Instrument

Film Extraction

Test	Compound	Result
M313	DPG	50 g/L
Extraction	DPG	5 g/L
	Final Report:	45 g/L

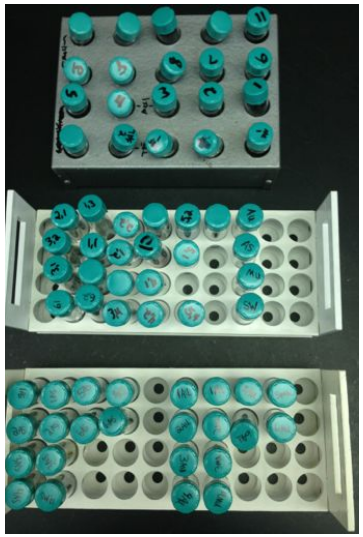
Subtract extraction results from M313 results

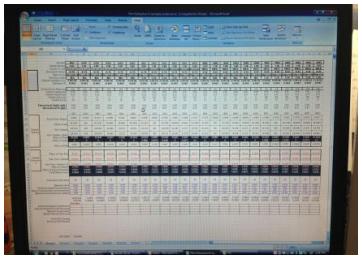
Film Extraction Procedure

	Parameter	Value
Spike	Glycerin	~20 g/L
Sample in Pan	110 °C (1 hour)	0.4 ± 0.1 g Sample
Solvents	Acetone or MEK	~6 ml
Mixing	Sonication & Overnight	30 minutes & 24 hours
Internal Standard	EOEOE	~ 5 g/L

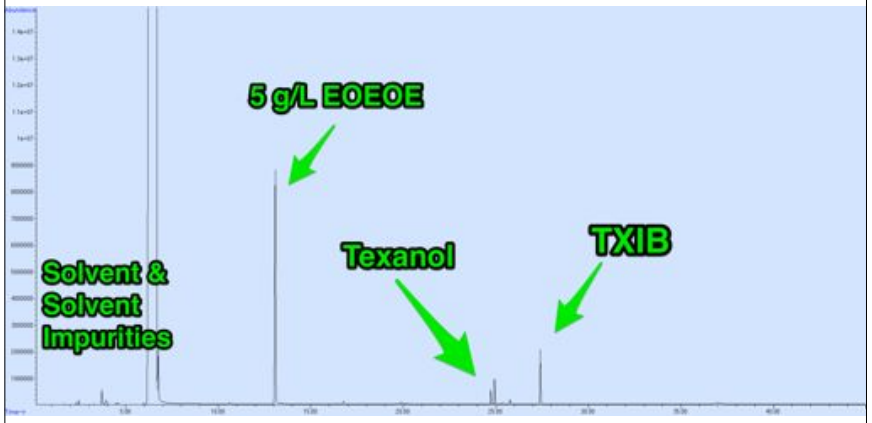
Film Extraction Procedure

Attempt #	# Samples	Solvents	Spike	Mixing
1.	1	MeOH & THF	NA	10 Minute Sonication
2.	6	MeOH & THF	Glycerin	10 minute sonication
3.	6	THF & MeCl	Glycerin	25 minute sonication
4.	6	Acetone & MEK	Glycerin	25 minute sonication + 24 hour shaking





Draft Results



Preliminary Conclusions

	% of Total VOC Extracted	Average % Recovery of Spike
Swimming Pool Paint	64%	61%
All Other Samples (averaged)	12%	15%

Parameters to Consider

Solvent
Sample Size
Heat
Sample Type
Spike

The Relative Volatility of Materials

Mike Gernon

Compounds of Interest

1. Name of Compound
2. Nature of Concern
3. Method Used For Justification

Next Meeting

M313 Test Methodology

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