

ANALYTICAL REPORT

Job Number: 720-14133-1

Job Description: FCI Dublin

For:

MARCOR Remediation Inc

6644 Sierra Lane

Dublin, CA 94568

Attention: Mr. Michael Lanning

RECEIVED

1:53 pm, Jun 06, 2008

Alameda County
Environmental Health

Melissa Brewer

Melissa Brewer
Project Manager I
melissa.brewer@testamericainc.com
05/05/2008

Job Narrative
720-J14133-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC VOA

No analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-14133-3	COMPOSITE 1 AND 2				
Ethylbenzene		0.072	0.025	mg/Kg	8260B
Xylenes, Total		0.46	0.049	mg/Kg	8260B
Diesel Range Organics [C10-C28]		4100	20	mg/Kg	8015B
Chromium		34	0.97	mg/Kg	6010B
Nickel		51	0.97	mg/Kg	6010B
Lead		11	0.97	mg/Kg	6010B
Zinc		42	0.97	mg/Kg	6010B

METHOD SUMMARY

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B	
Purge and Trap for Solids	TAL SF		SW846 5030B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL SF	SW846 8015B	
Ultrasonic Extraction	TAL SF		SW846 3550B
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL SF	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	TAL SF		SW846 3050B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-14133-3	COMPOSITE 1 AND 2	Solid	05/02/2008 1015	05/02/2008 1040

Analytical Data

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Client Sample ID: COMPOSITE 1 AND 2

Lab Sample ID: 720-14133-3

Date Sampled: 05/02/2008 1015

Client Matrix: Solid

Date Received: 05/02/2008 1040

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 720-35105	Instrument ID: Saturn 2100
Preparation:	5030B	Prep Batch: 720-35104	Lab File ID: d:\data\200805\050508\sa-s
Dilution:	1.0		Initial Weight/Volume: 1.02 g
Date Analyzed:	05/05/2008 1604		Final Weight/Volume: 10 mL
Date Prepared:	05/05/2008 0803		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Benzene		ND		0.025
Ethylbenzene		0.072		0.025
Toluene		ND		0.025
Xylenes, Total		0.46		0.049
Surrogate		%Rec		Acceptance Limits
Toluene-d8 (Surr)		104		70 - 130
1,2-Dichloroethane-d4 (Surr)		120		60 - 140

Analytical Data

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Client Sample ID: COMPOSITE 1 AND 2

Lab Sample ID: 720-14133-3

Date Sampled: 05/02/2008 1015

Client Matrix: Solid

Date Received: 05/02/2008 1040

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch: 720-35058	Instrument ID:	HP DRO5
Preparation:	3550B	Prep Batch: 720-35014	Lab File ID:	N/A
Dilution:	20		Initial Weight/Volume:	30.44 g
Date Analyzed:	05/05/2008 0957		Final Weight/Volume:	5 mL
Date Prepared:	05/02/2008 1229		Injection Volume:	
			Column ID:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		4100		20
Surrogate		%Rec		Acceptance Limits
p-Terphenyl		0	D	40 - 119

Analytical Data

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Client Sample ID: COMPOSITE 1 AND 2

Lab Sample ID: 720-14133-3

Date Sampled: 05/02/2008 1015

Client Matrix: Solid

Date Received: 05/02/2008 1040

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 720-35109

Instrument ID: Varian ICP

Preparation: 3050B

Prep Batch: 720-35013

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.03 g

Date Analyzed: 05/05/2008 1619

Final Weight/Volume: 50 mL

Date Prepared: 05/02/2008 1228

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Cadmium		ND		0.49
Chromium		34		0.97
Nickel		51		0.97
Lead		11		0.97
Zinc		42		0.97

DATA REPORTING QUALIFIERS

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Lab Section	Qualifier	Description
GC Semi VOA	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

Quality Control Results

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 720-35104					
LCS 720-35104/2-A	Lab Control Spike	T	Solid	5030B	
LCSD 720-35104/3-A	Lab Control Spike Duplicate	T	Solid	5030B	
MB 720-35104/1-A	Method Blank	T	Solid	5030B	
720-14133-3	COMPOSITE 1 AND 2	T	Solid	5030B	
Analysis Batch:720-35105					
LCS 720-35104/2-A	Lab Control Spike	T	Solid	8260B	720-35104
LCSD 720-35104/3-A	Lab Control Spike Duplicate	T	Solid	8260B	720-35104
MB 720-35104/1-A	Method Blank	T	Solid	8260B	720-35104
720-14133-3	COMPOSITE 1 AND 2	T	Solid	8260B	720-35104

Report Basis

T = Total

GC Semi VOA

Prep Batch: 720-35014					
LCS 720-35014/2-A	Lab Control Spike	T	Solid	3550B	
LCSD 720-35014/3-A	Lab Control Spike Duplicate	T	Solid	3550B	
MB 720-35014/1-A	Method Blank	T	Solid	3550B	
720-14133-3	COMPOSITE 1 AND 2	T	Solid	3550B	
Analysis Batch:720-35058					
LCS 720-35014/2-A	Lab Control Spike	T	Solid	8015B	720-35014
LCSD 720-35014/3-A	Lab Control Spike Duplicate	T	Solid	8015B	720-35014
MB 720-35014/1-A	Method Blank	T	Solid	8015B	720-35014
720-14133-3	COMPOSITE 1 AND 2	T	Solid	8015B	720-35014

Report Basis

T = Total

Quality Control Results

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-35013					
LCS 720-35013/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-35013/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
LCSSRM 720-35013/10-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-35013/1-A	Method Blank	T	Solid	3050B	
720-14133-3	COMPOSITE 1 AND 2	T	Solid	3050B	
Analysis Batch:720-35109					
LCS 720-35013/2-A	Lab Control Spike	T	Solid	6010B	720-35013
LCSD 720-35013/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-35013
LCSSRM 720-35013/10-A	LCS-Standard Reference Material	T	Solid	6010B	720-35013
MB 720-35013/1-A	Method Blank	T	Solid	6010B	720-35013
720-14133-3	COMPOSITE 1 AND 2	T	Solid	6010B	720-35013

Report Basis

T = Total

Quality Control Results

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Method Blank - Batch: 720-35104

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-35104/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1134
Date Prepared: 05/05/2008 0803

Analysis Batch: 720-35105
Prep Batch: 720-35104
Units: mg/Kg

Instrument ID: Saturn 2100
Lab File ID: d:\data\200805\050508\mb
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Benzene	ND		0.0050
Ethylbenzene	ND		0.0050
Toluene	ND		0.0050
Xylenes, Total	ND		0.010
<hr/>			
Surrogate	% Rec	Acceptance Limits	
Toluene-d8 (Surr)	105	70 - 130	
1,2-Dichloroethane-d4 (Surr)	123	60 - 140	

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-35104**

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID: LCS 720-35104/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1205
Date Prepared: 05/05/2008 0803

Analysis Batch: 720-35105
Prep Batch: 720-35104
Units: mg/Kg

Instrument ID: Saturn 2100
Lab File ID: d:\data\200805\050508\ls-s
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-35104/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1232
Date Prepared: 05/05/2008 0803

Analysis Batch: 720-35105
Prep Batch: 720-35104
Units: mg/Kg

Instrument ID: Saturn 2100
Lab File ID: d:\data\200805\050508\ld-sc
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	98	95	70 - 123	4	20		
Toluene	95	96	81 - 128	1	20		
<hr/>							
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	106		107		70 - 130		
1,2-Dichloroethane-d4 (Surr)	104		135		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Method Blank - Batch: 720-35014

**Method: 8015B
Preparation: 3550B**

Lab Sample ID: MB 720-35014/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/02/2008 2255
Date Prepared: 05/02/2008 1229

Analysis Batch: 720-35058
Prep Batch: 720-35014
Units: mg/Kg

Instrument ID: HP DRO5
Lab File ID: N/A
Initial Weight/Volume: 30.11 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		1.0
Surrogate	% Rec		Acceptance Limits
p-Terphenyl	90		40 - 119

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-35014**

**Method: 8015B
Preparation: 3550B**

LCS Lab Sample ID: LCS 720-35014/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/02/2008 2202
Date Prepared: 05/02/2008 1229

Analysis Batch: 720-35058
Prep Batch: 720-35014
Units: mg/Kg

Instrument ID: HP DRO5
Lab File ID: N/A
Initial Weight/Volume: 30.10 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-35014/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/02/2008 2228
Date Prepared: 05/02/2008 1229

Analysis Batch: 720-35058
Prep Batch: 720-35014
Units: mg/Kg

Instrument ID: HP DRO5
Lab File ID: N/A
Initial Weight/Volume: 30.11 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Diesel Range Organics [C10-C28]	77	77	50 - 130	0	30		
Surrogate		LCS % Rec	LCSD % Rec			Acceptance Limits	
p-Terphenyl		86	88			40 - 119	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Method Blank - Batch: 720-35013

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-35013/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1553
Date Prepared: 05/02/2008 1228

Analysis Batch: 720-35109
Prep Batch: 720-35013
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Cadmium	ND		0.50
Chromium	ND		1.0
Nickel	ND		1.0
Lead	ND		1.0
Zinc	ND		1.0

LCS-Standard Reference Material - Batch: 720-35013

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-35013/10-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1626
Date Prepared: 05/02/2008 1228

Analysis Batch: 720-35109
Prep Batch: 720-35013
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	42.2	35.0	83	67 - 118	
Chromium	246	198	81	67 - 121	
Nickel	96.8	77.8	80	65 - 117	
Lead	44.1	33.8	77	62 - 113	
Zinc	44.0	33.2	75	62 - 110	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-35013**

**Method: 6010B
Preparation: 3050B**

LCS Lab Sample ID: LCS 720-35013/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1556
Date Prepared: 05/02/2008 1228

Analysis Batch: 720-35109
Prep Batch: 720-35013
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-35013/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/05/2008 1600
Date Prepared: 05/02/2008 1228

Analysis Batch: 720-35109
Prep Batch: 720-35013
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1 g
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Cadmium	93	92	80 - 120	1	20		
Chromium	95	94	80 - 120	1	20		
Nickel	92	91	80 - 120	1	20		
Lead	92	91	80 - 120	1	20		
Zinc	91	90	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Login Sample Receipt Check List

Client: MARCOR Remediation Inc

Job Number: 720-14133-1

Login Number: 14133
Creator: Sidhu, Surinder
List Number: 1

List Source: TestAmerica San Francisco

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	2:1 COMP