

ANALYTICAL REPORT

Eurofins Calscience
2841 Dow Avenue, Suite 100
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Tel: (714)895-5494

Laboratory Job ID: 570-86758-2
Client Project/Site: D0921

For:
National Engineering & Consulting Group
15 Hammond
Suite 309
Irvine, California 92618

Attn: Wael Ibrahim



Authorized for release by:
5/25/2022 3:14:25 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Job ID: 570-86758-2

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-86758-2

Comments

No additional comments.

Receipt

The samples were received on 3/4/2022 11:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 20.5° C.

Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision of Copper, Lead, Antimony and Zinc for preparation batch 440-671515 and analytical batch 440-671835 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was within acceptance limits

Method 6010B: The continuing calibration blank (CCB) for 440-671835 contained Antimony above the method detection limit (MDL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed. (CCB 440-671835/63)

Method 6010B: The post digestion spike % recovery for Copper, Lead and Antimony associated with batch 440-671835 was outside of control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Client Sample ID: D0921-WC-A1A2A3

Lab Sample ID: 570-86758-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	64		1.0		mg/Kg	5		6010B	Total/NA
Zinc	130		5.0		mg/Kg	5		6010B	Total/NA
Copper	22		2.0		mg/Kg	5		6010B	Total/NA
Cadmium	0.78		0.50		mg/Kg	5		6010B	Total/NA
Arsenic	4.3		3.0		mg/Kg	5		6010B	Total/NA
Lead	2.7		0.10		mg/L	20		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Method: 6010B - Metals (ICP)

Client Sample ID: D0921-WC-A1A2A3

Date Collected: 03/01/22 11:58

Date Received: 03/04/22 11:40

Lab Sample ID: 570-86758-22

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		04/22/22 19:01	04/30/22 13:41	5
Lead	64		1.0		mg/Kg		04/22/22 19:01	04/30/22 13:41	5
Zinc	130		5.0		mg/Kg		04/22/22 19:01	04/30/22 13:41	5
Copper	22		2.0		mg/Kg		04/22/22 19:01	04/30/22 13:41	5
Cadmium	0.78		0.50		mg/Kg		04/22/22 19:01	04/30/22 13:41	5
Arsenic	4.3		3.0		mg/Kg		04/22/22 19:01	04/30/22 13:41	5

Client Sample Results

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Method: 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: D0921-WC-A1A2A3

Date Collected: 03/01/22 11:58

Date Received: 03/04/22 11:40

Lab Sample ID: 570-86758-22

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.7		0.10		mg/L			05/14/22 05:50	20

- 1
- 2
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- 13
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QC Sample Results

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-671515/1-A ^5
Matrix: Solid
Analysis Batch: 671835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		04/22/22 19:01	04/30/22 13:12	5
Lead	ND		1.0		mg/Kg		04/22/22 19:01	04/30/22 13:12	5
Zinc	ND		5.1		mg/Kg		04/22/22 19:01	04/30/22 13:12	5
Copper	ND		2.0		mg/Kg		04/22/22 19:01	04/30/22 13:12	5
Cadmium	ND		0.51		mg/Kg		04/22/22 19:01	04/30/22 13:12	5
Arsenic	ND		3.1		mg/Kg		04/22/22 19:01	04/30/22 13:12	5

Lab Sample ID: LCS 440-671515/2-A ^5
Matrix: Solid
Analysis Batch: 671835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.3	59.1		mg/Kg		118	80 - 120
Lead	50.3	50.7		mg/Kg		101	80 - 120
Zinc	50.3	49.9		mg/Kg		99	80 - 120
Copper	50.3	52.1		mg/Kg		104	80 - 120
Cadmium	50.3	49.0		mg/Kg		97	80 - 120
Arsenic	50.3	48.8		mg/Kg		97	80 - 120

Lab Sample ID: 570-89025-A-1-B MS ^5
Matrix: Solid
Analysis Batch: 671835

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 671515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	F1	50.8	17.5	F1	mg/Kg		34	75 - 125
Lead	270	F2	50.8	847	4	mg/Kg		1130	75 - 125
Zinc	590	F2	50.8	577	4	mg/Kg		-17	75 - 125
Copper	56	F1	50.8	112		mg/Kg		111	75 - 125
Cadmium	2.0		50.8	48.2		mg/Kg		91	75 - 125
Arsenic	7.7		50.8	53.3		mg/Kg		90	75 - 125

Lab Sample ID: 570-89025-A-1-C MSD
Matrix: Solid
Analysis Batch: 671835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 671515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1	51.0	18.7	F1	mg/Kg		37	75 - 125	7	20
Lead	270	F2	51.0	388	4 F2	mg/Kg		226	75 - 125	74	20
Zinc	590	F2	51.0	740	4 F2	mg/Kg		304	75 - 125	25	20
Copper	56	F1	51.0	131	F1	mg/Kg		147	75 - 125	16	20
Cadmium	2.0		51.0	52.6		mg/Kg		99	75 - 125	9	20
Arsenic	7.7		51.0	57.8		mg/Kg		98	75 - 125	8	20

Lab Sample ID: MB 440-671938/1-A ^20
Matrix: Solid
Analysis Batch: 672135

Client Sample ID: Method Blank
Prep Type: STLC Citrate

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.10		mg/L			05/14/22 04:44	20

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QC Sample Results

Client: National Engineering & Consulting Group
 Project/Site: D0921

Job ID: 570-86758-2

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-671938/2-A ^20
Matrix: Solid
Analysis Batch: 672135

Client Sample ID: Lab Control Sample
Prep Type: STLC Citrate

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	19.2		mg/L		96	80 - 120

Lab Sample ID: LCSD 440-671938/3-A ^20
Matrix: Solid
Analysis Batch: 672135

Client Sample ID: Lab Control Sample Dup
Prep Type: STLC Citrate

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	19.3		mg/L		96	80 - 120	0	20

Lab Sample ID: 570-86122-A-21-B MS ^20
Matrix: Solid
Analysis Batch: 672135

Client Sample ID: Matrix Spike
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.0		20.0	21.2		mg/L		96	75 - 125

Lab Sample ID: 570-86122-A-21-B MSD ^20
Matrix: Solid
Analysis Batch: 672135

Client Sample ID: Matrix Spike Duplicate
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.0		20.0	21.0		mg/L		95	75 - 125	1	20

QC Association Summary

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Metals

Prep Batch: 671515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-86758-22	D0921-WC-A1A2A3	Total/NA	Solid	3050B	
MB 440-671515/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-671515/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
570-89025-A-1-B MS ^5	Matrix Spike	Total/NA	Solid	3050B	
570-89025-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 671835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-86758-22	D0921-WC-A1A2A3	Total/NA	Solid	6010B	671515
MB 440-671515/1-A ^5	Method Blank	Total/NA	Solid	6010B	671515
LCS 440-671515/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	671515
570-89025-A-1-B MS ^5	Matrix Spike	Total/NA	Solid	6010B	671515
570-89025-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	671515

Leach Batch: 671938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-86758-22	D0921-WC-A1A2A3	STLC Citrate	Solid	CA WET Citrate	
MB 440-671938/1-A ^20	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 440-671938/2-A ^20	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 440-671938/3-A ^20	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	
570-86122-A-21-B MS ^20	Matrix Spike	STLC Citrate	Solid	CA WET Citrate	
570-86122-A-21-B MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	CA WET Citrate	

Analysis Batch: 672135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-671938/1-A ^20	Method Blank	STLC Citrate	Solid	6010B	671938
LCS 440-671938/2-A ^20	Lab Control Sample	STLC Citrate	Solid	6010B	671938
LCSD 440-671938/3-A ^20	Lab Control Sample Dup	STLC Citrate	Solid	6010B	671938
570-86122-A-21-B MS ^20	Matrix Spike	STLC Citrate	Solid	6010B	671938
570-86122-A-21-B MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	6010B	671938

Analysis Batch: 672204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-86758-22	D0921-WC-A1A2A3	STLC Citrate	Solid	6010B	671938

Lab Chronicle

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Client Sample ID: D0921-WC-A1A2A3

Lab Sample ID: 570-86758-22

Date Collected: 03/01/22 11:58

Matrix: Solid

Date Received: 03/04/22 11:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.02 g	500 mL	671938	05/07/22 05:00	XBO9	IRV 2
STLC Citrate	Analysis	6010B		20			672204	05/14/22 05:50	P1R	IRV 2
		Instrument ID: ICP8								
Total/NA	Prep	3050B			1.99 g	50 mL	671515	04/22/22 19:01	FIQ7	IRV 2
Total/NA	Analysis	6010B		5			671835	04/30/22 13:41	P1R	IRV 2
		Instrument ID: ICP10								

Laboratory References:

IRV 2 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2706	06-30-22

- 1
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Method Summary

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	IRV 2
3050B	Preparation, Metals	SW846	IRV 2
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	IRV 2

Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

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

Laboratory References:

IRV 2 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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Sample Summary

Client: National Engineering & Consulting Group
Project/Site: D0921

Job ID: 570-86758-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-86758-22	D0921-WC-A1A2A3	Solid	03/01/22 11:58	03/04/22 11:40

- 1
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- 14

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 T (310) 854-6300 F (310) 854-0199 EFIGlobal.com
 Results to: mtaifour@groupnec.com, ExideLAB@EFIGlobal.com
 SITE ID: D0921
 APN: 6314005007

Sampled By: Ben Cohn, Errol Waight, Angel Cabrera, Shavira Sims

Number	Sample ID	Lab ID	Matrix						Preservative		Sampling Information	
			Type	Grab	Comp.	Soil	Water	Air	Cold	HNO3	Date	Time
1	D0921-C01-12		X	X							03-01-22	1132
2	D0921-C01-18		X	X								1133
3	D0921-C02-12		X	X								1134
4	D0921-C02-18		X	X								1135
5	D0921-C03-12		X	X								1136
6	D0921-C03-18		X	X								1137
7	D0921-C04-12		X	X								1138
8	D0921-C04-18		X	X								1139
9	D0921-C05-12		X	X								1140
10	D0921-C05-18		X	X								1141
11	D0921-C06-12		X	X								1142
12	D0921-C06-18		X	X								1143
13	D0921-C07-12		X	X								1144
14	D0921-C07-18		X	X								1145
15	D0921-C08-12		X	X								1146
16	D0921-C08-18		X	X								1147
17	D0921-C07-12D		X	X								1144
18	D0921-WC-A1		X	X				X				1152
19	D0921-WC-A2		X	X				X				1153
20	D0921-WC-A3		X	X				X				1154
21	D0921-WC-A1A2		X	X				X				1156
22	D0921-WC-A1A2A3		X	X				X				1158
23												20.5/20.5
24												5 C 19
25												



Relinquished By		Received By	
Name & Company	Signature	Name & Company	Signature
Ben Cohn	<i>[Signature]</i>	EFI SECURE STORAGE - HP	BC
EFI SECURE STORAGE - HP	<i>[Signature]</i>	Kevin Bahestens	<i>[Signature]</i>
Kevin Bahestens	<i>[Signature]</i>	AUDY MGA GC	<i>[Signature]</i>
AUDY MGA GC	<i>[Signature]</i>	FC	<i>[Signature]</i>

Chain-of-Custody Record and Analysis Request

Method	Container			TAT	Instructions
	4 Ounce Jar	8 Ounce Jar	250-ml Polypropylene Bottle		
6-Metal Suite, T.T.L.C. 6010B	X	X	X	5-Day	DATA REPORTING LEVEL
Lead, T.T.L.C. 6010B	X	X	X	Other	
TPH, 9071					
VOCs, 8260B					
Hold					

(1) Homogenize samples prior to analysis.
 (2) 6-Metal Suite = Sb, As, Cd, Cu, Pb, Zn
 (3) Do not dispose of samples; HOLD until further instruction.
 (4) See Project QAPP for MS/MSD, PS/PSD, Serial Dilution Requirements.



Login Sample Receipt Checklist

Client: National Engineering & Consulting Group

Job Number: 570-86758-2

Login Number: 86758
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
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	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

