

APPENDIX E-2

Soil Sampling and Pesticide Analysis

Prepared by

Moore Twining Associates

May 2019



May 30, 2019

C64406.01

Mr. Bert Verrips, AICP
Environmental Consulting Services
11942 Red Hill Avenue
Santa Ana, California 92705

RE: Soil Sampling and Pesticide Analysis
Solar Blue Solar Project
Kings County, California

Dear Mr. Verrips:

This letter presents the results and findings of limited Phase II to investigate soils at a property located at the intersection of 25th Avenue and South Laurel Avenue in an unincorporated area of Kings County, west of the City of Stratford, California (Site). It is Moore Twining Associates, Inc. (Moore Twining) understanding that this investigation was requested by you as part of your due diligence for the subject property related to development of the Site.

The purpose of the soil sampling and analysis was to assess if persistent pesticides are present in on-Site soil that exceed human health or waste disposal screening levels, and if aerially deposited lead was present in soils near the planned Site entryways.

SOIL SAMPLING METHODS

Five soil borings (B1 through B5) were hand-augured on April 29, 2019 for collection of shallow soil samples to characterize organochlorinated pesticides (OCPs) and arsenic in soil. Soil boring locations are shown on the attached drawing. At each boring location, soil samples were collected from 0.5-foot below surface grade (bsg) and 1.5 feet bsg.

Two soil borings (S1 and S2) were hand-augured on April 29, 2019 for collection of shallow soil samples to characterize aerially deposited lead (ADL) generated by automobile traffic on entries to major roads. S1 and S2 were collected from the northern Site boundary on Laurel Avenue. At each boring location, soil samples were collected from 0.5-foot below surface grade (bsg).

Soil samples were collected from the specified depths by driving a pre-cleaned stainless-steel sleeve into the undisturbed soil using a slide-hammer soil sampler. The sleeve was subsequently capped with Teflon sheets and plastic caps, labeled with the sample date/time and a unique soil sample number, placed in a chilled ice chest, and delivered under chain of custody (COC) documentation to Moore Twining's Laboratory. The soil samples were analyzed for OCPs by EPA Method 8081A and for arsenic and/or lead by EPA Method 6010B. The number and location of the samples was specified by the client.

RESULTS AND RECOMMENDATIONS

The pesticide 4,4' DDE was detected in samples B1 through B5 ranging in concentration from 0.0028 mg/kg to 0.016 mg/kg. These concentrations are below the residential and commercial Federal EPA screening levels.

The pesticide Trifluralin was reported in B1 with a concentration of 0.0034 mg/kg, below the EPA Regional screening level of 90 mg/kg for residential properties and 420 mg/kg for commercial properties.

Arsenic was reported in B1 through B5 ranging from 11 to 12 mg/kg. These concentrations exceed the Department of Toxic Substances Control (DTSC) screening levels (0.11 mg/kg residential and 0.42 mg/kg commercial) however the DTSC has acknowledged that background concentrations of arsenic in California soils can average 12 mg/kg in some areas. As such, the elevated concentrations on the Site would not generally require cleanup to screening levels.

Lead was detected at concentrations of 12 mg/kg in both samples S1 and S2. The detected concentrations are below the Human Health Risk Assessment (HHRA) for residential soils of 80 mg/kg and below the soluble threshold limit concentration of 5 milligrams/Liter (mg/L) for landfill sampling requirements. No other chemicals of concern were detected above the method detection limit. A copy of the laboratory report and Moore Twining's chain of custody is included with this letter.

Moore Twining does not recommend any further action.

LIMITATIONS

The scope of the investigation undertaken to conduct this soil characterization screening was intended to be an interactive process. The purpose of an environmental assessment is to reasonably characterize existing Site conditions based on field observations and laboratory analytical data. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the Site conditions and an exhaustive analysis of each conceivable environmental characteristic.

Conditions of interest may exist at the Site that cannot be identified by visual observations and the scope of the work performed as part of this analysis. Where subsurface exploratory work was performed, our professional opinions were based in part on interpretation of data from discrete sampling locations that may not represent actual conditions or un-sampled locations. If conditions of interest were not identified during performance of the work, such a finding should not be construed as a guarantee that such conditions do not exist at the Site.

This work was conducted in accordance with generally accepted engineering principles and practices in at the time the work was performed. This warranty is in lieu of all other warranties, either expressed or implied. This report was prepared for the sole use of the client and appropriate regulatory agencies. Any reliance on this report by a third party is at such party's sole risk.

CLOSING

We appreciate the opportunity to be of service to you on this project. Please contact our office at (800) 268-7021 if you have any questions regarding this report.

Sincerely,

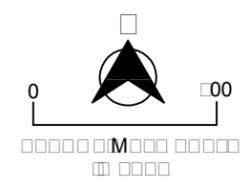
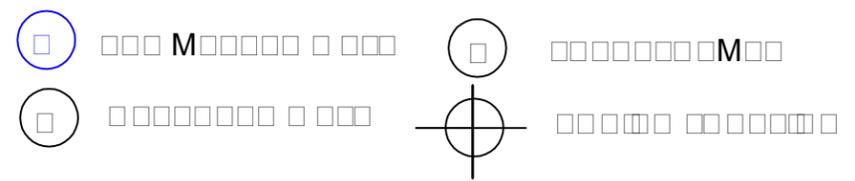
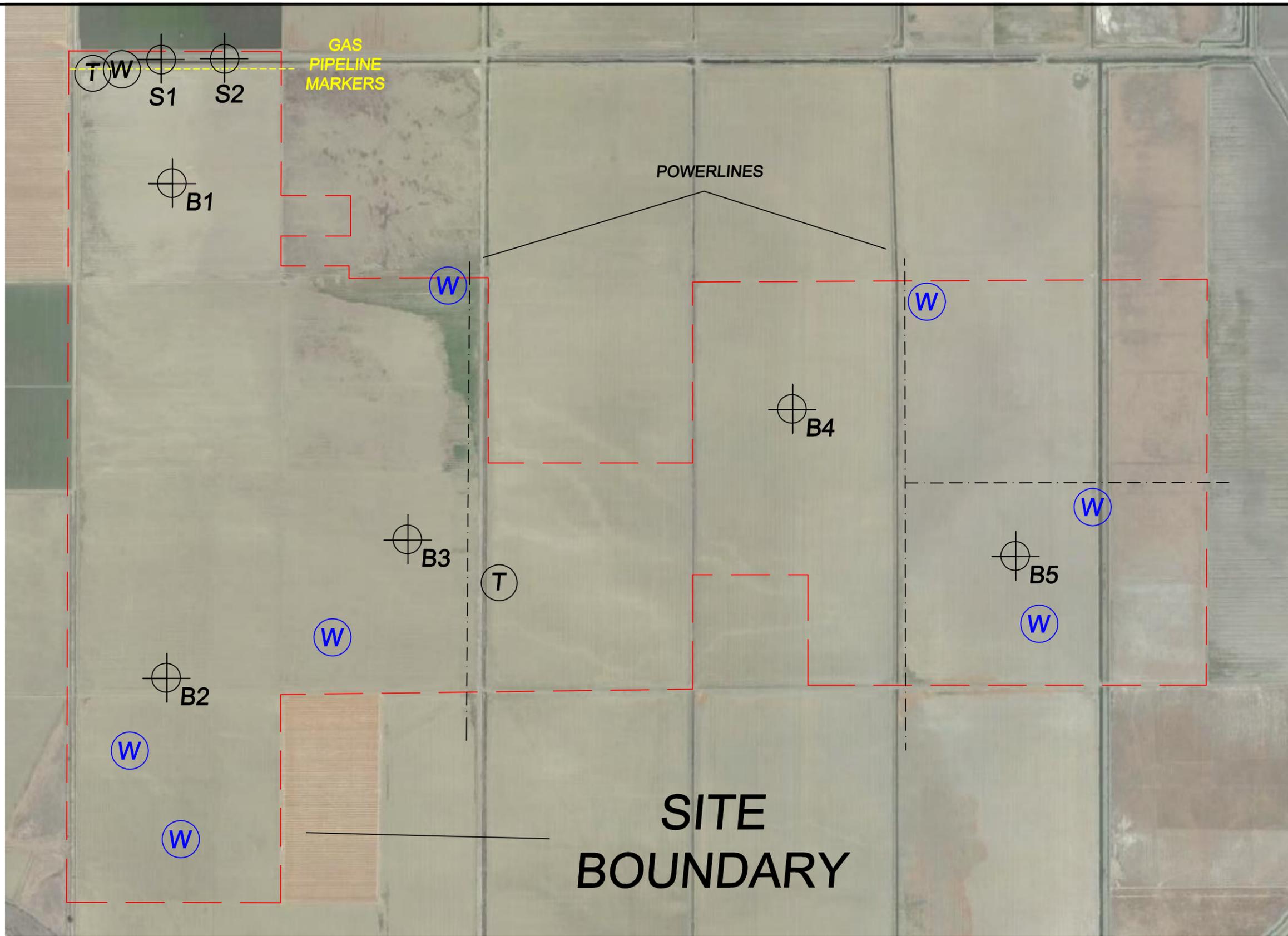
MOORE TWINING ASSOCIATES, INC.
Environmental Services Division



Katie Lister PG, QSD
Environmental Division Manager



exp 12/30/20



MOORE TWINING ASSOCIATES, INC.
 2000 WEST 10TH AVENUE
 DENVER, CO 80202

07/30/2011	1
0100	1



2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

May 17, 2019

Work Order #: **FD29028**

Katie Lister
MTA Environmental Division
2527 Fresno Street
Fresno, CA 93721

RE: Solar Blue

Enclosed are the analytical results for samples received by our laboratory on **04/29/19** . For your reference, these analyses have been assigned laboratory work order number **FD29028**.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.

A handwritten signature in black ink, appearing to read 'Susan Federico', is written in a cursive style.

Susan Federico
Client Services Representative

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

Analytical Report for the Following Samples

Sample ID	Notes	Laboratory ID	Matrix	Date Sampled	Date Received
B1-0.5		FD29028-01	Soil	04/29/19 10:26	04/29/19 14:00
B2-0.5		FD29028-03	Soil	04/29/19 10:48	04/29/19 14:00
B3-0.5		FD29028-05	Soil	04/29/19 11:08	04/29/19 14:00
B4-0.5		FD29028-07	Soil	04/29/19 11:28	04/29/19 14:00
B5-0.5		FD29028-09	Soil	04/29/19 11:43	04/29/19 14:00
S1		FD29028-11	Soil	04/29/19 12:01	04/29/19 14:00
S2		FD29028-12	Soil	04/29/19 12:08	04/29/19 14:00

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

B1-0.5

FD29028-01 (Soil)

Sampled: 04/29/19 10:26

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
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Metals (Total)

Arsenic		12	2.0	mg/kg	1	B9D2527	05/06/19	05/06/19	EPA 6010B
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Semi-Volatile Organics

8081A Twining

4,4'-DDD		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDE	J	0.0029	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDT		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Aldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
beta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Chlordane (tech)		ND	0.036	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
delta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Dieldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan I		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan II		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan sulfate		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin aldehyde		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin ketone		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-BHC (Lindane)		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor epoxide		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Methoxychlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Toxaphene		ND	0.020	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Trifluralin	J	0.0034	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
<i>Surr: Decachlorobiphenyl (DCB)</i>		91.4%	Recovery Limits: 11.4% - 122%			B9E0712	05/07/19	05/15/19	EPA 8081A
<i>Surr: Tetrachloro-meta-xylene (TMX)</i>		84.3%	Recovery Limits: 8.5% - 170%			B9E0712	05/07/19	05/15/19	EPA 8081A

B2-0.5

FD29028-03 (Soil)

Sampled: 04/29/19 10:48

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
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Metals (Total)

Arsenic		12	2.0	mg/kg	1	B9D2527	05/06/19	05/06/19	EPA 6010B
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Semi-Volatile Organics

8081A Twining

4,4'-DDD		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDE	J	0.0060	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDT		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Aldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

B2-0.5

FD29028-03 (Soil)

Sampled: 04/29/19 10:48

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
beta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Chlordane (tech)		ND	0.036	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
delta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Dieldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan I		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan II		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan sulfate		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin aldehyde		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin ketone		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-BHC (Lindane)		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor epoxide		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Methoxychlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Toxaphene		ND	0.020	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Trifluralin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		89.1%	Recovery Limits: 11.4% - 122%			B9E0712	05/07/19	05/15/19	EPA 8081A
Surr: Tetrachloro-meta-xylene (TMX)		85.7%	Recovery Limits: 8.5% - 170%			B9E0712	05/07/19	05/15/19	EPA 8081A

B3-0.5

FD29028-05 (Soil)

Sampled: 04/29/19 11:08

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		12	2.0	mg/kg	1	B9D2527	05/06/19	05/06/19	EPA 6010B
Semi-Volatile Organics									
8081A Twining									
4,4'-DDD		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDE		0.016	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDT		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Aldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
beta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Chlordane (tech)		ND	0.036	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
delta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Dieldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan I		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan II		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan sulfate		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin aldehyde		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

B3-0.5

FD29028-05 (Soil)

Sampled: 04/29/19 11:08

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Endrin ketone		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-BHC (Lindane)		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor epoxide		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Methoxychlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Toxaphene		ND	0.020	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Trifluralin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		91.0%	Recovery Limits: 11.4% - 122%			B9E0712	05/07/19	05/15/19	EPA 8081A
Surr: Tetrachloro-meta-xylene (TMX)		55.9%	Recovery Limits: 8.5% - 170%			B9E0712	05/07/19	05/15/19	EPA 8081A

B4-0.5

FD29028-07 (Soil)

Sampled: 04/29/19 11:28

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		11	2.0	mg/kg	1	B9D2527	05/06/19	05/06/19	EPA 6010B
Semi-Volatile Organics									
8081A Twining									
4,4'-DDD		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDE	J	0.0028	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDT		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Aldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
beta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Chlordane (tech)		ND	0.036	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
delta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Dieldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan I		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan II		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan sulfate		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin aldehyde		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin ketone		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-BHC (Lindane)		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor epoxide		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Methoxychlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Toxaphene		ND	0.020	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Trifluralin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		87.1%	Recovery Limits: 11.4% - 122%			B9E0712	05/07/19	05/15/19	EPA 8081A

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

B4-0.5

FD29028-07 (Soil)

Sampled: 04/29/19 11:28

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
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Semi-Volatile Organics

8081A Twining

Surr: Tetrachloro-meta-xylene (TMX) 89.7% Recovery Limits: 8.5% - 170% B9E0712 05/07/19 05/15/19 EPA 8081A

B5-0.5

FD29028-09 (Soil)

Sampled: 04/29/19 11:43

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
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Metals (Total)

Arsenic 12 2.0 mg/kg 1 B9D2527 05/06/19 05/06/19 EPA 6010B

Semi-Volatile Organics

8081A Twining

4,4'-DDD		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDE	J	0.0061	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
4,4'-DDT		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Aldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
alpha-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
beta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Chlordane (tech)		ND	0.036	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
delta-BHC		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Dieldrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan I		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan II		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endosulfan sulfate		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin aldehyde		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Endrin ketone		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-BHC (Lindane)		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
gamma-Chlordane		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Heptachlor epoxide		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Methoxychlor		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Toxaphene		ND	0.020	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
Trifluralin		ND	0.010	mg/kg	1	B9E0712	05/07/19	05/15/19	EPA 8081A
<i>Surr: Decachlorobiphenyl (DCB)</i>	S02	137%	Recovery Limits: 11.4% - 122%			B9E0712	05/07/19	05/15/19	EPA 8081A
<i>Surr: Tetrachloro-meta-xylene (TMX)</i>		83.8%	Recovery Limits: 8.5% - 170%			B9E0712	05/07/19	05/15/19	EPA 8081A

S1

FD29028-11 (Soil)

Sampled: 04/29/19 12:01

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
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Metals (Total)

Lead 12 2.0 mg/kg 1 B9D2527 05/06/19 05/06/19 EPA 6010B

MTA Environmental Division 2527 Fresno Street Fresno CA, 93721	Project: Solar Blue Project Number: MTP 19-0277 Project Manager: Katie Lister	Reported: 05/17/2019
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S2

FD29028-12 (Soil)

Sampled: 04/29/19 12:08

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Lead		12	2.0	mg/kg	1	B9D2527	05/06/19	05/06/19	EPA 6010B

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

Quality Control Sample Results - Metals (Total)

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9D2527										
Blank (B9D2527-BLK1)		Prepared & Analyzed: 05/06/19								
EPA 6010B										
Arsenic		ND	2.0	mg/kg						
Lead		ND	2.0	mg/kg						
LCS (B9D2527-BS1)		Prepared & Analyzed: 05/06/19								
EPA 6010B										
Arsenic		40.9	2.0	mg/kg	40.0		102	75-125		
Lead		20.5	2.0	mg/kg	20.0		103	75-125		
LCS Dup (B9D2527-BSD1)		Prepared & Analyzed: 05/06/19								
EPA 6010B										
Arsenic		41.3	2.0	mg/kg	40.0		103	75-125	0.855	20
Lead		20.6	2.0	mg/kg	20.0		103	75-125	0.568	20
Matrix Spike (B9D2527-MS1)		Prepared & Analyzed: 05/06/19				Source: FD29027-01				
EPA 6010B										
Arsenic		48.5	2.0	mg/kg	40.2	11.9	91.0	75-125		
Lead		31.7	2.0	mg/kg	20.1	13.0	92.8	75-125		
Matrix Spike Dup (B9D2527-MSD1)		Prepared & Analyzed: 05/06/19				Source: FD29027-01				
EPA 6010B										
Arsenic		47.9	2.0	mg/kg	40.3	11.9	89.4	75-125	1.15	20
Lead		31.4	2.0	mg/kg	20.2	13.0	91.5	75-125	0.714	20
Matrix Spike (B9D2527-MS2)		Prepared & Analyzed: 05/06/19				Source: FD30032-01				
EPA 6010B										
Arsenic		49.3	2.0	mg/kg	40.3	9.73	98.2	75-125		
Lead		27.6	2.0	mg/kg	20.1	7.90	97.9	75-125		
Matrix Spike Dup (B9D2527-MSD2)		Prepared & Analyzed: 05/06/19				Source: FD30032-01				
EPA 6010B										
Arsenic		47.9	2.0	mg/kg	39.9	9.73	95.6	75-125	2.93	20
Lead		27.0	2.0	mg/kg	19.9	7.90	95.6	75-125	2.39	20

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

Quality Control Sample Results - Semi-Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
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Batch - B9E0712

Blank (B9E0712-BLK1)

Prepared: 05/07/19 Analyzed: 05/15/19

EPA 8081A

Surr: Decachlorobiphenyl (DCB)		0.0250		mg/kg	0.0250		100	11.4-122		
Surr: Tetrachloro-meta-xylene (TMX)		0.0213		mg/kg	0.0250		85.1	8.5-170		
4,4'-DDD		ND	0.010	mg/kg						
4,4'-DDE		ND	0.010	mg/kg						
4,4'-DDT		ND	0.010	mg/kg						
Aldrin		ND	0.010	mg/kg						
alpha-BHC		ND	0.010	mg/kg						
alpha-Chlordane		ND	0.010	mg/kg						
beta-BHC		ND	0.010	mg/kg						
Chlordane (tech)		ND	0.036	mg/kg						
delta-BHC		ND	0.010	mg/kg						
Dieldrin		ND	0.010	mg/kg						
Endosulfan I		ND	0.010	mg/kg						
Endosulfan II		ND	0.010	mg/kg						
Endosulfan sulfate		ND	0.010	mg/kg						
Endrin		ND	0.010	mg/kg						
Endrin aldehyde		ND	0.010	mg/kg						
Endrin ketone		ND	0.010	mg/kg						
gamma-BHC (Lindane)		ND	0.010	mg/kg						
gamma-Chlordane		ND	0.010	mg/kg						
Heptachlor		ND	0.010	mg/kg						
Heptachlor epoxide		ND	0.010	mg/kg						
Methoxychlor		ND	0.010	mg/kg						
Toxaphene		ND	0.020	mg/kg						
Trifluralin		ND	0.010	mg/kg						

LCS (B9E0712-BS1)

Prepared: 05/07/19 Analyzed: 05/15/19

EPA 8081A

Surr: Decachlorobiphenyl (DCB)		0.0302		mg/kg	0.0250		121	11.4-122		
Surr: Tetrachloro-meta-xylene (TMX)		0.0197		mg/kg	0.0250		78.8	8.5-170		
4,4'-DDT		0.0449	0.010	mg/kg	0.0500		89.8	25-160		
Aldrin		0.0361	0.010	mg/kg	0.0500		72.3	42-122		
Dieldrin		0.0396	0.010	mg/kg	0.0500		79.2	36-146		
Endrin		0.0485	0.010	mg/kg	0.0500		97.0	30-147		
gamma-BHC (Lindane)		0.0367	0.010	mg/kg	0.0500		73.5	19-140		
Heptachlor		0.0392	0.010	mg/kg	0.0500		78.3	34-111		

LCS Dup (B9E0712-BSD1)

Prepared: 05/07/19 Analyzed: 05/15/19

EPA 8081A

Surr: Decachlorobiphenyl (DCB)		0.0223		mg/kg	0.0250		89.1	11.4-122		
Surr: Tetrachloro-meta-xylene (TMX)		0.0188		mg/kg	0.0250		75.1	8.5-170		
4,4'-DDT		0.0422	0.010	mg/kg	0.0500		84.3	25-160	6.31	20

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
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Project Manager: Katie Lister

Reported:
05/17/2019

Quality Control Sample Results - Semi-Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
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Batch - B9E0712

LCS Dup (B9E0712-BSD1) Prepared: 05/07/19 Analyzed: 05/15/19

EPA 8081A

Aldrin		0.0353	0.010	mg/kg	0.0500		70.6	42-122	2.40	20
Dieldrin		0.0373	0.010	mg/kg	0.0500		74.7	36-146	5.85	20
Endrin		0.0452	0.010	mg/kg	0.0500		90.4	30-147	6.98	20
gamma-BHC (Lindane)		0.0359	0.010	mg/kg	0.0500		71.9	19-140	2.23	20
Heptachlor		0.0384	0.010	mg/kg	0.0500		76.9	34-111	1.90	20

Duplicate (B9E0712-DUP1) Prepared: 05/07/19 Analyzed: 05/15/19 **Source: FD29027-01**

EPA 8081A

<i>Surr: Decachlorobiphenyl (DCB)</i>		0.0232		mg/kg	0.0250		92.9	11.4-122		
<i>Surr: Tetrachloro-meta-xylene (TMX)</i>		0.0218		mg/kg	0.0250		87.3	8.5-170		
4,4'-DDD		ND	0.010	mg/kg		ND				
4,4'-DDE	J	0.00273	0.010	mg/kg		0.00274			0.285	200
4,4'-DDT		ND	0.010	mg/kg		ND				
Aldrin		ND	0.010	mg/kg		ND				
alpha-BHC		ND	0.010	mg/kg		ND				
alpha-Chlordane		ND	0.010	mg/kg		ND				
beta-BHC		ND	0.010	mg/kg		ND				
Chlordane (tech)		ND	0.036	mg/kg		ND				
delta-BHC		ND	0.010	mg/kg		ND				
Dieldrin		ND	0.010	mg/kg		ND				
Endosulfan I		ND	0.010	mg/kg		ND				
Endosulfan II		ND	0.010	mg/kg		ND				
Endosulfan sulfate		ND	0.010	mg/kg		ND				
Endrin		ND	0.010	mg/kg		ND				
Endrin aldehyde		ND	0.010	mg/kg		ND				
Endrin ketone		ND	0.010	mg/kg		ND				
gamma-BHC (Lindane)		ND	0.010	mg/kg		ND				
gamma-Chlordane		ND	0.010	mg/kg		ND				
Heptachlor		ND	0.010	mg/kg		ND				
Heptachlor epoxide		ND	0.010	mg/kg		ND				
Methoxychlor		ND	0.010	mg/kg		ND				
Toxaphene		ND	0.020	mg/kg		ND				
Trifluralin		ND	0.010	mg/kg		ND				

Matrix Spike (B9E0712-MS1) Prepared: 05/07/19 Analyzed: 05/15/19 **Source: FD29027-01**

EPA 8081A

<i>Surr: Decachlorobiphenyl (DCB)</i>		0.0214		mg/kg	0.0250		85.6	11.4-122		
<i>Surr: Tetrachloro-meta-xylene (TMX)</i>		0.0196		mg/kg	0.0250		78.3	8.5-170		
4,4'-DDT		0.0432	0.010	mg/kg	0.0500	ND	86.4	25-160		
Aldrin		0.0364	0.010	mg/kg	0.0500	ND	72.8	42-122		
Dieldrin		0.0380	0.010	mg/kg	0.0500	ND	76.1	36-146		
Endrin		0.0497	0.010	mg/kg	0.0500	ND	99.4	30-147		

MTA Environmental Division
2527 Fresno Street
Fresno CA, 93721

Project: Solar Blue
Project Number: MTP 19-0277
Project Manager: Katie Lister

Reported:
05/17/2019

Quality Control Sample Results - Semi-Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
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Batch - B9E0712

Matrix Spike (B9E0712-MS1) Prepared: 05/07/19 Analyzed: 05/15/19 Source: FD29027-01

EPA 8081A

gamma-BHC (Lindane)		0.0381	0.010	mg/kg	0.0500	ND	76.2	19-140		
Heptachlor		0.0391	0.010	mg/kg	0.0500	ND	78.1	34-111		

Matrix Spike Dup (B9E0712-MSD1) Prepared: 05/07/19 Analyzed: 05/15/19 Source: FD29027-01

EPA 8081A

Surr: Decachlorobiphenyl (DCB)		0.0200		mg/kg	0.0250		80.1	11.4-122		
Surr: Tetrachloro-meta-xylene (TMX)		0.0172		mg/kg	0.0250		68.9	8.5-170		
4,4'-DDT		0.0411	0.010	mg/kg	0.0500	ND	82.3	25-160	4.93	20
Aldrin		0.0326	0.010	mg/kg	0.0500	ND	65.3	42-122	10.9	20
Dieldrin		0.0343	0.010	mg/kg	0.0500	ND	68.6	36-146	10.4	20
Endrin		0.0458	0.010	mg/kg	0.0500	ND	91.6	30-147	8.17	20
gamma-BHC (Lindane)		0.0339	0.010	mg/kg	0.0500	ND	67.8	19-140	11.8	20
Heptachlor		0.0353	0.010	mg/kg	0.0500	ND	70.5	34-111	10.2	20

Notes and Definitions

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). Same as DNQ - Detected, but Not Quantified.
- S02 Surrogate recovery was affected by the matrix.
- µg/L micrograms per liter (parts per billion concentration units)
- mg/L milligrams per liter (parts per million concentration units)
- mg/kg milligrams per kilogram (parts per million concentration units)
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

Analysis of pH, filtration, and residual chlorine is to take place immediately after sampling in the field.
If the test was performed in the laboratory, the hold time was exceeded. **(for aqueous matrices only)**

ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

WORK ORDER #:

PAGE 1 **OF** 2 FD29028

REPORT TO:

INVOICE TO:

REPORT COPY TO:

REPORTING:

ATTENTION: Katie Lister	ATTENTION: Katie Lister	<input checked="" type="checkbox"/> STANDARD FORMAT <input type="checkbox"/> EDT (STATE FORM) <input type="checkbox"/> GEOTRACKER/COELT (LUFT) <input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> County DHS : <input type="checkbox"/> Environmental Health Agency : <input checked="" type="checkbox"/> OTHER: J Flag Report/Standard Excel
NAME: Moore Twining Associates	NAME: Moore Twining Associates	
ADDRESS: 2527 Fresno St	ADDRESS: 2527 Fresno St	
PHONE: 559-268-7021	PHONE: 559-268-7021	
FAX: 559-268-7126	FAX: 559-268-7126	

SAMPLE INFORMATION		SAMPLE TYPES:	PROJECT INFORMATION	
SAMPLED BY (PRINT): Joe Clark SIGNATURE:		SOLID: BS - BIOSOLID CR - CERAMIC SL - SOIL/SOLID LIQUID: DW - DRINKING WATER GW - GROUND WATER OL - OIL SF - SURFACE WATER ST - STORM WATER WW - WASTE WATER	CONTRACT/P.O. NO.: PROJECT: Solar Blue PROJECT NUMBER: MTP 19-0277 CRWA MEMBER? YES <input type="checkbox"/> NO <input type="checkbox"/>	
<input type="checkbox"/> PUBLIC SYSTEM <input type="checkbox"/> ROUTINE <input type="checkbox"/> PRIVATE WELL <input type="checkbox"/> REPEAT <input type="checkbox"/> OTHER <input type="checkbox"/> REPLACEMENT				
TURN AROUND TIME: <input type="checkbox"/> RUSH, DUE ON: <input type="checkbox"/> STANDARD				

LAB USE	NOTES ON RECEIVED CONDITION:				EPA 8081A (OCPs)	EPA 6010B (Arsenic)	Total Lead							System Number / Station Code
	<input type="checkbox"/> CUSTODY SEAL(S) BROKEN <input type="checkbox"/> SAMPLE(S) DAMAGED <input checked="" type="checkbox"/> ON ICE <input type="checkbox"/> AMBIENT TEMP. <input type="checkbox"/> INCORRECT PRESERVATION 5:10													
	CLIENT SAMPLE ID	DATE	TIME	TYPE										
1	B1-0.5	4/29/19	1026	SL	X	X								
2	B1-1.5	4/29/19	1032	SL										HOLD
3	B2-0.5	4/29/19	1048	SL	X	X								
4	B2-1.5	4/29/19	1051	SL										HOLD
5	B3-0.5	4/29/19	1108	SL	X	X								
6	B3-1.5	4/29/19	1111	SL										HOLD
7	B4-0.5	4/29/19	1128	SL	X	X								
8	B4-1.5	4/29/19	1132	SL										HOLD
9	B5-0.5	4/29/19	1143	SL	X	X								
10	B5-1.5	4/29/19	1146	SL										HOLD
11	S1	4/29/19	1201	SL				X						
12	S2	4/29/19	1208	SL				X						

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
		4-29-19	1400		MTA

