

Work Orders: 8A09180

Project: MS4 - Storm Water Monitoring 2017-2018

Attn: Edmond G. Suher

Client: AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Report Date: 2/20/2018

Received Date: 1/9/2018

Turnaround Time: Normal

Phones: (818) 841-9004

Fax: (818) 841-8013

P.O. #:

Billing Code:

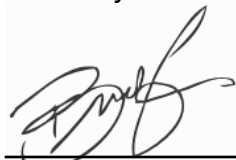
DoD-ELAP #L2457 • ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • ISO 17025 #L2457.01 • LACSD #10143 •
NJ-DEP #CA015

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Edmond G. Suher,

Enclosed are the results of analyses for samples received 1/09/18 with the Chain-of-Custody document. The samples were received in good condition, at 13.0 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Brandon Gee
Operations Manager/Senior PM





WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
SAWPW-074A	ES/TM	8A09180-01	Water	01/09/18 16:55	
SGR-077	ES/TM	8A09180-02	Water	01/09/18 16:55	
BDW-027A	ES/TM	8A09180-03	Water	01/09/18 16:55	
Trip Blank	ES/TM	8A09180-04	Water	01/09/18 00:00	

Not Certified Analyses Summary

Analyte	CAS #	Not Accredited By
Enterolert in Water		
Enterococcus		NELAP
EPA 625.1 in Water		
Naphthalene	91-20-3	NELAP
Acenaphthylene	208-96-8	NELAP
Acenaphthene	83-32-9	NELAP
Fluorene	86-73-7	NELAP
Phenanthrene	85-01-8	NELAP
Anthracene	120-12-7	NELAP
Fluoranthene	206-44-0	NELAP
Pyrene	129-00-0	NELAP
Benzo (a) anthracene	56-55-3	NELAP
Chrysene	218-01-9	NELAP
Benzo (b) fluoranthene	205-99-2	NELAP
Benzo (k) fluoranthene	207-08-9	NELAP
Benzo (a) pyrene	50-32-8	NELAP
Indeno (1,2,3-cd) pyrene	193-39-5	NELAP
Dibenzo (a,h) anthracene	53-70-3	NELAP
Benzo (g,h,i) perylene	191-24-2	NELAP
1,3-Dimethyl-2-nitrobenzene	81-20-9	NELAP
Perylene-d12	1520-96-3	NELAP
SM 9221B in Water		
Total Coliform		NELAP
SM 9221E in Water		
Fecal Coliform		NELAP
SM 9221F in Water		
E. coli		NELAP



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Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

Sample: SAWPW-074A
8A09180-01 (Water)

Sampled: 01/09/18 16:55 by ES/TM

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Anions by IC, EPA Method 300.0

Method: EPA 300.0	Batch ID: W8A0476	Instr: LC04	Prepared: 01/10/18 08:05	Analyst: jan	
NO2+NO3 as N	0.93	0.11	mg/l	1	01/10/18 12:51
Method: EPA 300.0	Batch ID: W8A0586	Instr: LC12	Prepared: 01/11/18 08:05	Analyst: jan	
Chloride, Total	6.7	0.50	mg/l	1	01/11/18 22:00
Sulfate as SO4	7.1	0.50	mg/l	1	01/11/18 22:00

Chlorinated Acids Herbicides by GC/ECD

Method: EPA 515.3	Batch ID: W8A0820	Instr: GC08	Prepared: 01/15/18 08:20		Analyst: rmr	
2,4,5-T		ND	0.20	ug/l	1	01/18/18 12:18
2,4,5-TP (Silvex)		ND	0.20	ug/l	1	01/18/18 12:18
2,4-D		ND	0.40	ug/l	1	01/18/18 12:18
2,4-DB		ND	2.0	ug/l	1	01/18/18 12:18
3,5-Dichlorobenzoic acid		ND	1.0	ug/l	1	01/18/18 12:18
Acifluorfen		ND	0.40	ug/l	1	01/18/18 12:18
Bentazon		ND	2.0	ug/l	1	01/18/18 12:18
Dalapon		ND	0.40	ug/l	1	01/18/18 12:18
DCPA		ND	0.10	ug/l	1	01/18/18 12:18
Dicamba		ND	0.60	ug/l	1	01/18/18 12:18
Dichloroprop		ND	0.30	ug/l	1	01/18/18 12:18
Dinoseb		ND	0.40	ug/l	1	01/18/18 12:18
Pentachlorophenol		0.61	0.20	ug/l	1	01/18/18 12:18
Picloram		ND	0.60	ug/l	1	01/18/18 12:18
Surrogate(s)						
2,4-DCAA	106%	Conc: 10.6	70-130			01/18/18 12:18

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 160.4	Batch ID: W8A0745	Instr: FURN02	Prepared: 01/12/18 13:20	Analyst: ajk
Volatile Suspended Solids		13	5.0 mg/l	1 01/12/18 14:25
Method: EPA 180.1	Batch ID: W8A0475	Instr: TURB01	Prepared: 01/10/18 07:47	Analyst: sap
Turbidity		13	0.10 NTU	1 01/10/18 09:49
Method: EPA 335.4	Batch ID: W8A0954	Instr: AA01	Prepared: 01/16/18 14:42	Analyst: nat
Cyanide, Total		ND	5.0 ug/l	1 01/22/18 12:11
Method: EPA 350.1	Batch ID: W8A0863	Instr: AA06	Prepared: 01/15/18 12:41	Analyst: mnq
Ammonia as N		0.40	0.10 mg/l	1 01/19/18 16:44
Method: EPA 351.2	Batch ID: W8A1234	Instr: AA06	Prepared: 01/21/18 09:07	Analyst: ymt
TKN		2.5	0.10 mg/l	1 01/24/18 15:21
Method: EPA 365.1	Batch ID: W8A0679	Instr: AA01	Prepared: 01/11/18 20:49	Analyst: nat
Phosphorus as P, Total		0.52	0.050 mg/l	5 01/16/18 12:08
Method: EPA 365.3	Batch ID: W8A0932	Instr: UVVIS04	Prepared: 01/16/18 11:32	Analyst: stq

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Certificate of Analysis

FINAL REPORT

Reported:

02/20/2018 08:40

Sample Results

(Continued)

Sample: SAWPW-074A

Sampled: 01/09/18 16:55 by ES/TM

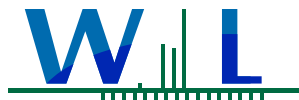
8A09180-01 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)						
Method: EPA 365.3	Batch ID: W8A0932	Instr: UVVIS04	Prepared: 01/16/18 11:32	Analyst: stg		
Phosphorus, Dissolved	0.38	0.010	mg/l	1	01/22/18 12:47	
Method: EPA 410.4	Batch ID: W8A0946	Instr: Inst	Prepared: 01/17/18 15:00	Analyst: mnq		
Chemical Oxygen Demand	79	5.0	mg/l	1	01/18/18 12:35	
Method: EPA 420.4	Batch ID: W8A0832	Instr: AA03	Prepared: 01/15/18 09:27	Analyst: ajk		
Phenolics	0.013	0.010	mg/l	1	01/19/18 10:16	
Method: SM 2320B	Batch ID: W8A0787	Instr: AA02	Prepared: 01/12/18 19:46	Analyst: stg		
Alkalinity as CaCO3	35	2.0	mg/l	1	01/15/18 15:55	
Method: SM 2510B	Batch ID: W8A0885	Instr: AA02	Prepared: 01/15/18 15:31	Analyst: stg		
Specific Conductance (EC)	130	2.0	umhos/cm	1	01/15/18 17:11	
Method: SM 2540C	Batch ID: W8A0520	Instr: OVEN01	Prepared: 01/10/18 12:07	Analyst: ymt		
Total Dissolved Solids	96	10	mg/l	1	01/14/18 21:48	
Method: SM 2540D	Batch ID: W8A0744	Instr: OVEN11	Prepared: 01/12/18 13:23	Analyst: ajk		
Total Suspended Solids	23	5	mg/l	1	01/12/18 14:25	
Method: SM 4500O-G	Batch ID: W8A0472	Instr: Inst	Prepared: 01/09/18 20:52	Analyst: mic		
Dissolved Oxygen	8.22	1.00	mg/l	1	01/09/18 21:02	*
Method: SM 5210B	Batch ID: W8A0604	Instr: Inst	Prepared: 01/11/18 10:04	Analyst: mic		
Biochemical Oxygen Demand	9.8	2.0	mg/l	1	01/16/18 13:28	
Method: SM 5310B	Batch ID: W8A0598	Instr: TOC02	Prepared: 01/11/18 09:26	Analyst: jlp		
Total Organic Carbon (TOC)	23	0.10	mg/l	1	01/11/18 10:27	
Method: SM 5540C	Batch ID: W8A0502	Instr: UVVIS03	Prepared: 01/10/18 10:06	Analyst: ymt		
MBAS	0.35	0.050	mg/l	1	01/10/18 23:03	
Hexavalent Chromium by IC						
Method: EPA 218.6	Batch ID: W8A0458	Instr: LC13	Prepared: 01/09/18 17:50	Analyst: blg		
Chromium 6+	0.19	0.10	ug/l	5	01/10/18 20:49	
Method: EPA 218.6	Batch ID: W8A1076	Instr: LC13	Prepared: 01/17/18 18:04	Analyst: blg		
Chromium 6+, Dissolved	0.33	0.020	ug/l	1	01/17/18 20:06	
Hydrocarbons by GC/FID						
Method: EPA 8015D	Batch ID: W8A0490	Instr: GC04	Prepared: 01/10/18 09:18	Analyst: cam		
Diesel Range Organics	1.1	0.10	mg/l	1	01/18/18 10:29	
Oil Range Organics	1.1	0.50	mg/l	1	01/18/18 10:29	
<i>Surrogate(s)</i>						
<i>n-Tetracosane</i>	91%	<i>Conc: 0.240</i>	<i>64-155</i>		01/18/18 10:29	
Mercury - Low Level by CVAFS						
Method: EPA 1631E	Batch ID: W8A0936	Instr: HG02	Prepared: 01/10/18 19:11	Analyst: aln		
Mercury, Dissolved	7.2	0.50	ng/l	1	01/29/18 16:34	B
Mercury, Total	17	0.50	ng/l	1	01/29/18 16:34	

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Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SAWPW-074A

Sampled: 01/09/18 16:55 by ES/TM

8A09180-01 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/16/18 10:13	Analyst: JCK		
Calcium Hardness as CaCO3	32.9	0.250	mg/l	1	01/17/18 16:05	
Method: EPA 200.7	Batch ID: W8A0921	Instr: ICP03	Prepared: 01/16/18 10:13	Analyst: JCK		
Calcium, Total	13.2	0.100	mg/l	1	01/17/18 16:05	
Method: EPA 200.8	Batch ID: W8A0928	Instr: ICPMS04	Prepared: 01/16/18 10:58	Analyst: rrl		
Aluminum, Dissolved	36	5.0	ug/l	1	01/17/18 15:53	
Aluminum, Total	520	5.0	ug/l	1	01/17/18 15:57	
Antimony, Dissolved	2.7	0.50	ug/l	1	01/17/18 15:53	
Antimony, Total	3.0	0.50	ug/l	1	01/17/18 15:57	
Arsenic, Dissolved	1.4	0.40	ug/l	1	01/17/18 15:53	
Arsenic, Total	1.6	0.40	ug/l	1	01/17/18 15:57	
Cadmium, Dissolved	ND	0.10	ug/l	1	01/17/18 15:53	
Cadmium, Total	0.15	0.10	ug/l	1	01/17/18 15:57	
Chromium, Dissolved	0.76	0.20	ug/l	1	01/17/18 15:53	
Chromium, Total	1.6	0.20	ug/l	1	01/17/18 15:57	
Copper, Dissolved	28	0.50	ug/l	1	01/17/18 15:53	
Copper, Total	34	0.50	ug/l	1	01/17/18 15:57	
Iron, Dissolved	64	20	ug/l	1	01/17/18 15:53	
Iron, Total	730	20	ug/l	1	01/17/18 15:57	
Lead, Dissolved	0.43	0.20	ug/l	1	01/17/18 15:53	
Lead, Total	4.4	0.20	ug/l	1	01/17/18 15:57	
Nickel, Dissolved	6.4	0.80	ug/l	1	01/17/18 15:53	
Nickel, Total	7.4	0.80	ug/l	1	01/17/18 15:57	
Zinc, Dissolved	120	5.0	ug/l	1	01/17/18 15:53	
Zinc, Total	160	5.0	ug/l	1	01/17/18 15:57	
Microbiological Parameters by Standard Methods						
Method: Enterolert	Batch ID: W8B0383	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Enterococcus	>24,196	10	MPN/100ml	10	01/10/18 19:00	
Method: SM 9221B	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Total Coliform	1600000	200	MPN/100ml	100	02/03/18 11:26	
Method: SM 9221E	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Fecal Coliform	7000	200	MPN/100ml	100	02/02/18 11:38	
Method: SM 9221F	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
E. coli	7000	200	MPN/100ml	100	02/02/18 11:38	
Semivolatile Organics - Low Level by Tandem GC/MS/MS						
Method: EPA 625.1	Batch ID: W8A0599	Instr: GCMS15	Prepared: 01/11/18 09:34	Analyst: EFC		
Acenaphthene	ND	50	ng/l	1	01/23/18 23:48	M-02

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02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SAWPW-074A

Sampled: 01/09/18 16:55 by ES/TM

8A09180-01 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 625.1	Batch ID: W8A0599	Instr: GCMS15	Prepared: 01/11/18 09:34			Analyst: EFC	
Acenaphthylene		ND	50	ng/l	1	01/23/18 23:48	M-02
Anthracene		ND	50	ng/l	1	01/23/18 23:48	M-02
Benzo (a) anthracene		ND	50	ng/l	1	01/23/18 23:48	M-02
Benzo (a) pyrene		ND	50	ng/l	1	02/16/18 04:40	M-02
Benzo (b) fluoranthene		ND	50	ng/l	1	02/16/18 04:40	M-02
Benzo (g,h,i) perylene		ND	50	ng/l	1	02/16/18 04:40	M-02
Benzo (k) fluoranthene		ND	50	ng/l	1	02/16/18 04:40	M-02
Chrysene		ND	50	ng/l	1	01/23/18 23:48	M-02
Dibenzo (a,h) anthracene		ND	50	ng/l	1	02/16/18 04:40	M-02
Fluoranthene		ND	50	ng/l	1	01/23/18 23:48	M-02
Fluorene		ND	50	ng/l	1	01/23/18 23:48	M-02
Indeno (1,2,3-cd) pyrene		ND	50	ng/l	1	02/16/18 04:40	M-02
Naphthalene		ND	50	ng/l	1	01/23/18 23:48	M-02
Phenanthrene		ND	50	ng/l	1	01/23/18 23:48	M-02
Pyrene		ND	50	ng/l	1	01/23/18 23:48	M-02
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	74%	Conc: 740	50-150			01/23/18 23:48	M-02
Perylene-d12	82%	Conc: 824	50-150			01/23/18 23:48	M-02



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Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SGR-077

Sampled: 01/09/18 16:55 by ES/TM

8A09180-02 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Anions by IC, EPA Method 300.0

Method: EPA 300.0	Batch ID: W8A0476	Instr: LC04	Prepared: 01/10/18 08:05		Analyst: jan
NO2+NO3 as N		0.20	0.11	mg/l	1 01/10/18 14:15
Method: EPA 300.0	Batch ID: W8A0586	Instr: LC12	Prepared: 01/11/18 08:05		Analyst: jan
Chloride, Total		2.0	0.50	mg/l	1 01/11/18 22:00
Sulfate as SO4		1.0	0.50	mg/l	1 01/11/18 22:00

Chlorinated Acids Herbicides by GC/ECD

Method: EPA 515.3	Batch ID: W8A0820	Instr: GC08	Prepared: 01/15/18 08:20			Analyst: rmr
2,4,5-T		ND	0.20	ug/l	1	01/18/18 12:51
2,4,5-TP (Silvex)		ND	0.20	ug/l	1	01/18/18 12:51
2,4-D		ND	0.40	ug/l	1	01/18/18 12:51
2,4-DB		ND	2.0	ug/l	1	01/18/18 12:51
3,5-Dichlorobenzoic acid		ND	1.0	ug/l	1	01/18/18 12:51
Acifluorfen		ND	0.40	ug/l	1	01/18/18 12:51
Bentazon		ND	2.0	ug/l	1	01/18/18 12:51
Dalapon		ND	0.40	ug/l	1	01/18/18 12:51
DCPA		ND	0.10	ug/l	1	01/18/18 12:51
Dicamba		ND	0.60	ug/l	1	01/18/18 12:51
Dichloroprop		ND	0.30	ug/l	1	01/18/18 12:51
Dinoseb		ND	0.40	ug/l	1	01/18/18 12:51
Pentachlorophenol		ND	0.20	ug/l	1	01/18/18 12:51
Picloram		ND	0.60	ug/l	1	01/18/18 12:51
Surrogate(s)						
2,4-DCAA	105%	Conc: 10.5	70-130			01/18/18 12:51

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 160.4	Batch ID: W8A0745	Instr: FURN02	Prepared: 01/12/18 13:20	Analyst: ajk
Volatile Suspended Solids		11	5.0 mg/l	1 01/12/18 14:25
Method: EPA 180.1	Batch ID: W8A0475	Instr: TURB01	Prepared: 01/10/18 07:47	Analyst: sap
Turbidity		18	0.10 NTU	1 01/10/18 09:49
Method: EPA 335.4	Batch ID: W8A0954	Instr: AA01	Prepared: 01/16/18 14:42	Analyst: nat
Cyanide, Total		ND	5.0 ug/l	1 01/22/18 12:12
Method: EPA 350.1	Batch ID: W8A0863	Instr: AA06	Prepared: 01/15/18 12:41	Analyst: mnq
Ammonia as N		0.33	0.10 mg/l	1 01/19/18 16:44
Method: EPA 351.2	Batch ID: W8A1234	Instr: AA06	Prepared: 01/21/18 09:07	Analyst: ymt
TKN		0.87	0.10 mg/l	1 01/24/18 15:21
Method: EPA 365.1	Batch ID: W8A0679	Instr: AA01	Prepared: 01/11/18 20:49	Analyst: nat
Phosphorus as P, Total		0.18	0.010 mg/l	1 01/16/18 12:05
Method: EPA 365.3	Batch ID: W8A0932	Instr: UVVIS04	Prepared: 01/16/18 11:32	Analyst: stq

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FINAL REPORT

Reported:
02/20/2018 08:40

Sample Results

(Continued)

Sample: SGR-077

Sampled: 01/09/18 16:55 by ES/TM

8A09180-02 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)						
Method: EPA 365.3	Batch ID: W8A0932	Instr: UVVIS04	Prepared: 01/16/18 11:32		Analyst: stg	
Phosphorus, Dissolved	0.072	0.010	mg/l	1	01/22/18 12:47	
Method: EPA 410.4	Batch ID: W8A0946	Instr: Inst	Prepared: 01/17/18 15:00		Analyst: mnq	
Chemical Oxygen Demand	20	5.0	mg/l	1	01/18/18 12:35	
Method: EPA 420.4	Batch ID: W8A0832	Instr: AA03	Prepared: 01/15/18 09:27		Analyst: ajk	
Phenolics	ND	0.010	mg/l	1	01/19/18 10:16	
Method: SM 2320B	Batch ID: W8A0787	Instr: AA02	Prepared: 01/12/18 19:46		Analyst: stg	
Alkalinity as CaCO3	15	2.0	mg/l	1	01/15/18 15:55	
Method: SM 2510B	Batch ID: W8A0885	Instr: AA02	Prepared: 01/15/18 15:31		Analyst: stg	
Specific Conductance (EC)	35	2.0	umhos/cm	1	01/15/18 17:11	
Method: SM 2540C	Batch ID: W8A0520	Instr: OVEN01	Prepared: 01/10/18 12:07		Analyst: ymt	
Total Dissolved Solids	27	10	mg/l	1	01/14/18 21:48	
Method: SM 2540D	Batch ID: W8A0744	Instr: OVEN11	Prepared: 01/12/18 13:23		Analyst: ajk	
Total Suspended Solids	51	5	mg/l	1	01/12/18 14:25	
Method: SM 4500O-G	Batch ID: W8A0472	Instr: Inst	Prepared: 01/09/18 20:52		Analyst: mic	
Dissolved Oxygen	10.2	1.00	mg/l	1	01/09/18 21:02	*
Method: SM 5210B	Batch ID: W8A0604	Instr: Inst	Prepared: 01/11/18 10:04		Analyst: mic	
Biochemical Oxygen Demand	3.5	2.0	mg/l	1	01/16/18 13:28	
Method: SM 5310B	Batch ID: W8A0598	Instr: TOC02	Prepared: 01/11/18 09:26		Analyst: jlp	
Total Organic Carbon (TOC)	5.8	0.10	mg/l	1	01/11/18 10:27	
Method: SM 5540C	Batch ID: W8A0502	Instr: UVVIS03	Prepared: 01/10/18 10:06		Analyst: ymt	
MBAS	0.070	0.050	mg/l	1	01/10/18 23:03	
Hexavalent Chromium by IC						
Method: EPA 218.6	Batch ID: W8A0458	Instr: LC13	Prepared: 01/09/18 17:50		Analyst: blg	
Chromium 6+	0.31	0.040	ug/l	2	01/10/18 21:01	
Method: EPA 218.6	Batch ID: W8A1076	Instr: LC13	Prepared: 01/17/18 18:04		Analyst: blg	
Chromium 6+, Dissolved	0.24	0.020	ug/l	1	01/17/18 20:18	
Hydrocarbons by GC/FID						
Method: EPA 8015D	Batch ID: W8A0490	Instr: GC04	Prepared: 01/10/18 09:18		Analyst: cam	
Diesel Range Organics	0.38	0.10	mg/l	1	01/18/18 11:03	
Oil Range Organics	ND	0.50	mg/l	1	01/18/18 11:03	
Surrogate(s)						
n-Tetracosane	95% Conc: 0.238	64-155			01/18/18 11:03	
Mercury - Low Level by CVAFS						
Method: EPA 1631E	Batch ID: W8A0936	Instr: HG02	Prepared: 01/10/18 19:11		Analyst: aln	
Mercury, Dissolved	13	0.50	ng/l	1	01/29/18 16:34	B
Mercury, Total	15	0.50	ng/l	1	01/29/18 16:34	

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SGR-077

Sampled: 01/09/18 16:55 by ES/TM

8A09180-02 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/16/18 10:13	Analyst: JCK		
Calcium Hardness as CaCO3	11.1	0.250	mg/l	1	01/17/18 16:08	
Method: EPA 200.7	Batch ID: W8A0921	Instr: ICP03	Prepared: 01/16/18 10:13	Analyst: JCK		
Calcium, Total	4.46	0.100	mg/l	1	01/17/18 16:08	
Method: EPA 200.8	Batch ID: W8A0928	Instr: ICPMS04	Prepared: 01/16/18 10:58	Analyst: rrl		
Aluminum, Dissolved	30	5.0	ug/l	1	01/17/18 16:14	
Aluminum, Total	2000	5.0	ug/l	1	01/17/18 16:18	
Antimony, Dissolved	1.6	0.50	ug/l	1	01/17/18 16:14	
Antimony, Total	3.7	0.50	ug/l	1	01/17/18 16:18	
Arsenic, Dissolved	ND	0.40	ug/l	1	01/17/18 16:14	
Arsenic, Total	1.1	0.40	ug/l	1	01/17/18 16:18	
Cadmium, Dissolved	ND	0.10	ug/l	1	01/17/18 16:14	
Cadmium, Total	0.13	0.10	ug/l	1	01/17/18 16:18	
Chromium, Dissolved	0.24	0.20	ug/l	1	01/17/18 16:14	
Chromium, Total	3.5	0.20	ug/l	1	01/17/18 16:18	
Copper, Dissolved	3.8	0.50	ug/l	1	01/17/18 16:14	
Copper, Total	13	0.50	ug/l	1	01/17/18 16:18	
Iron, Dissolved	29	20	ug/l	1	01/17/18 16:14	
Iron, Total	2500	20	ug/l	1	01/17/18 16:18	
Lead, Dissolved	0.21	0.20	ug/l	1	01/17/18 16:14	
Lead, Total	13	0.20	ug/l	1	01/17/18 16:18	
Nickel, Dissolved	ND	0.80	ug/l	1	01/17/18 16:14	
Nickel, Total	3.4	0.80	ug/l	1	01/17/18 16:18	
Zinc, Dissolved	46	5.0	ug/l	1	01/17/18 16:14	
Zinc, Total	140	5.0	ug/l	1	01/17/18 16:18	
Microbiological Parameters by Standard Methods						
Method: Enterolert	Batch ID: W8B0383	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Enterococcus	1100	10	MPN/100ml	10	01/10/18 19:00	
Method: SM 9221B	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Total Coliform	11000	200	MPN/100ml	100	02/03/18 11:26	
Method: SM 9221E	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Fecal Coliform	400	200	MPN/100ml	100	02/02/18 11:38	
Method: SM 9221F	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
E. coli	400	200	MPN/100ml	100	02/02/18 11:38	
Semivolatile Organics - Low Level by Tandem GC/MS/MS						
Method: EPA 625.1	Batch ID: W8A0599	Instr: GCMS15	Prepared: 01/11/18 09:34	Analyst: EFC		
Acenaphthene	ND	50	ng/l	1	01/24/18 00:20	M-02

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

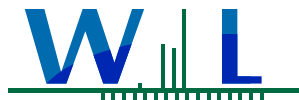
Sample: SGR-077

Sampled: 01/09/18 16:55 by ES/TM

8A09180-02 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)						
Method: EPA 625.1	Batch ID: W8A0599	Instr: GCMS15	Prepared: 01/11/18 09:34	Analyst: EFC		
Acenaphthylene	ND	50	ng/l	1	01/24/18 00:20	M-02
Anthracene	ND	50	ng/l	1	01/24/18 00:20	M-02
Benzo (a) anthracene	ND	50	ng/l	1	01/24/18 00:20	M-02
Benzo (a) pyrene	ND	50	ng/l	1	02/16/18 05:10	M-02
Benzo (b) fluoranthene	ND	50	ng/l	1	02/16/18 05:10	M-02
Benzo (g,h,i) perylene	ND	50	ng/l	1	02/16/18 05:10	M-02
Benzo (k) fluoranthene	ND	50	ng/l	1	02/16/18 05:10	M-02
Chrysene	ND	50	ng/l	1	01/24/18 00:20	M-02
Dibenzo (a,h) anthracene	ND	50	ng/l	1	02/16/18 05:10	M-02
Fluoranthene	ND	50	ng/l	1	01/24/18 00:20	M-02
Fluorene	ND	50	ng/l	1	01/24/18 00:20	M-02
Indeno (1,2,3-cd) pyrene	ND	50	ng/l	1	02/16/18 05:10	M-02
Naphthalene	50	50	ng/l	1	01/24/18 00:20	M-02
Phenanthrene	ND	50	ng/l	1	01/24/18 00:20	M-02
Pyrene	ND	50	ng/l	1	01/24/18 00:20	M-02
<i>Surrogate(s)</i>						
1,3-Dimethyl-2-nitrobenzene	66% Conc: 660	50-150			01/24/18 00:20	M-02
Perylene-d12	53% Conc: 532	50-150			01/24/18 00:20	M-02



WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
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Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: BDW-027A Sampled: 01/09/18 16:55 by ES/TM

8A09180-03 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Anions by IC, EPA Method 300.0

Method: EPA 300.0	Batch ID: W8A0476	Instr: LC04	Prepared: 01/10/18 08:05		Analyst: jan
NO2+NO3 as N	0.23	0.11	mg/l	1	01/10/18 14:35

Method: EPA 300.0		Batch ID: W8A0586	Instr: LC12	Prepared: 01/11/18 08:05		Analyst: jan
Chloride, Total	-----	4.5	0.50	mg/l	1	01/11/18 22:00
Sulfate as SO4	-----	2.7	0.50	mg/l	1	01/11/18 22:00

Chlorinated Acids Herbicides by GC/ECD

Method: EPA 515.3	Batch ID: W8A0820	Instr: GC08	Prepared: 01/15/18 08:20			Analyst: rmr
2,4,5-T		ND	0.20	ug/l	1	01/18/18 13:27
2,4,5-TP (Silvex)		ND	0.20	ug/l	1	01/18/18 13:27
2,4-D		ND	0.40	ug/l	1	01/18/18 13:27
2,4-DB		ND	2.0	ug/l	1	01/18/18 13:27
3,5-Dichlorobenzoic acid		ND	1.0	ug/l	1	01/18/18 13:27
Acifluorfen		ND	0.40	ug/l	1	01/18/18 13:27
Bentazon		ND	2.0	ug/l	1	01/18/18 13:27
Dalapon		ND	0.40	ug/l	1	01/18/18 13:27
DCPA		ND	0.10	ug/l	1	01/18/18 13:27
Dicamba		ND	0.60	ug/l	1	01/18/18 13:27
Dichloroprop		ND	0.30	ug/l	1	01/18/18 13:27
Dinoseb		ND	0.40	ug/l	1	01/18/18 13:27
Pentachlorophenol		ND	0.20	ug/l	1	01/18/18 13:27
Picloram		ND	0.60	ug/l	1	01/18/18 13:27
Surrogate(s)						
2,4-DCAA	99%	Conc: 9.93	70-130			01/18/18 13:27

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 160.4	Batch ID: W8A0745	Instr: FURN02	Prepared: 01/12/18 13:20	Analyst: ajk
Volatile Suspended Solids		14	5.0 mg/l	1 01/12/18 14:25
Method: EPA 180.1	Batch ID: W8A0475	Instr: TURB01	Prepared: 01/10/18 07:47	Analyst: sap
Turbidity		14	0.10 NTU	1 01/10/18 09:49
Method: EPA 335.4	Batch ID: W8A0954	Instr: AA01	Prepared: 01/16/18 14:42	Analyst: nat
Cyanide, Total		ND	5.0 ug/l	1 01/22/18 12:06
Method: EPA 350.1	Batch ID: W8A0863	Instr: AA06	Prepared: 01/15/18 12:41	Analyst: mnq
Ammonia as N		0.28	0.10 mg/l	1 01/19/18 16:44
Method: EPA 351.2	Batch ID: W8A1234	Instr: AA06	Prepared: 01/21/18 09:07	Analyst: ymt
TKN		0.91	0.10 mg/l	1 01/24/18 15:21
Method: EPA 365.1	Batch ID: W8A0679	Instr: AA01	Prepared: 01/11/18 20:49	Analyst: nat
Phosphorus as P, Total		0.15	0.010 mg/l	1 01/16/18 11:25
Method: EPA 365.3	Batch ID: W8A0932	Instr: UVVIS04	Prepared: 01/16/18 11:32	Analyst: stq

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Project Number: MS4 - Storm Water Monitoring 2017-2018

Project Manager: Edmond G. Suher

Certificate of Analysis

FINAL REPORT

Reported:

02/20/2018 08:40

Sample Results

(Continued)

Sample: BDW-027A

Sampled: 01/09/18 16:55 by ES/TM

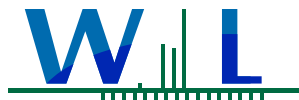
8A09180-03 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)						
Method: EPA 365.3 Phosphorus, Dissolved	Batch ID: W8A0932 Instr: UVVIS04 0.057	Prepared: 01/16/18 11:32 0.010	mg/l	1	Analyst: stg 01/22/18 12:47	
Method: EPA 410.4 Chemical Oxygen Demand	Batch ID: W8A0946 Instr: Inst 33	Prepared: 01/17/18 15:00 5.0	mg/l	1	Analyst: mnq 01/18/18 12:35	
Method: EPA 420.4 Phenolics	Batch ID: W8A0832 Instr: AA03 ND	Prepared: 01/15/18 09:27 0.010	mg/l	1	Analyst: ajk 01/19/18 10:16	
Method: SM 2320B Alkalinity as CaCO3	Batch ID: W8A0787 Instr: AA02 20	Prepared: 01/12/18 19:46 2.0	mg/l	1	Analyst: stg 01/15/18 15:55	
Method: SM 2510B Specific Conductance (EC)	Batch ID: W8A0885 Instr: AA02 49	Prepared: 01/15/18 15:31 2.0	umhos/cm	1	Analyst: stg 01/15/18 17:11	
Method: SM 2540C Total Dissolved Solids	Batch ID: W8A0520 Instr: OVEN01 38	Prepared: 01/10/18 12:07 10	mg/l	1	Analyst: ymt 01/14/18 21:48	
Method: SM 2540D Total Suspended Solids	Batch ID: W8A0744 Instr: OVEN11 41	Prepared: 01/12/18 13:23 5	mg/l	1	Analyst: ajk 01/12/18 14:25	
Method: SM 4500O-G Dissolved Oxygen	Batch ID: W8A0472 Instr: Inst 10.4	Prepared: 01/09/18 20:52 1.00	mg/l	1	Analyst: mic 01/09/18 21:02	*
Method: SM 5210B Biochemical Oxygen Demand	Batch ID: W8A0604 Instr: Inst 4.2	Prepared: 01/11/18 10:04 2.0	mg/l	1	Analyst: mic 01/16/18 13:28	
Method: SM 5310B Total Organic Carbon (TOC)	Batch ID: W8A0598 Instr: TOC02 6.4	Prepared: 01/11/18 09:26 0.10	mg/l	1	Analyst: jlp 01/11/18 10:27	
Method: SM 5540C MBAS	Batch ID: W8A0502 Instr: UVVIS03 0.17	Prepared: 01/10/18 10:06 0.050	mg/l	1	Analyst: ymt 01/10/18 23:03	
Hexavalent Chromium by IC						
Method: EPA 218.6 Chromium 6+	Batch ID: W8A0458 Instr: LC13 0.30	Prepared: 01/09/18 17:50 0.040	ug/l	2	Analyst: blg 01/10/18 21:12	
Method: EPA 218.6 Chromium 6+, Dissolved	Batch ID: W8A1076 Instr: LC13 0.21	Prepared: 01/17/18 18:04 0.020	ug/l	1	Analyst: blg 01/17/18 20:30	
Hydrocarbons by GC/FID						
Method: EPA 8015D Diesel Range Organics	Batch ID: W8A0490 Instr: GC04 0.29	Prepared: 01/10/18 09:18 0.10	mg/l	1	Analyst: cam 01/18/18 11:38	
Oil Range Organics	0.76	0.50	mg/l	1	01/18/18 11:38	
Surrogate(s) n-Tetracosane	83% Conc: 0.208	64-155			01/18/18 11:38	
Mercury - Low Level by CVAFS						
Method: EPA 1631E Mercury, Dissolved	Batch ID: W8A0936 Instr: HG02 4.1	Prepared: 01/10/18 19:11 0.50	ng/l	1	Analyst: aln 01/29/18 16:34	B
Mercury, Total	9.9	0.50	ng/l	1	01/29/18 16:34	

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: BDW-027A

Sampled: 01/09/18 16:55 by ES/TM

8A09180-03 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Metals by EPA 200 Series Methods						
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/16/18 10:13	Analyst: JCK		
Calcium Hardness as CaCO3	12.6	0.250	mg/l	1	01/17/18 16:11	
Method: EPA 200.7	Batch ID: W8A0921	Instr: ICP03	Prepared: 01/16/18 10:13	Analyst: JCK		
Calcium, Total	5.06	0.100	mg/l	1	01/17/18 16:11	
Method: EPA 200.8	Batch ID: W8A0928	Instr: ICPMS04	Prepared: 01/16/18 10:58	Analyst: rrl		
Aluminum, Dissolved	25	5.0	ug/l	1	01/17/18 16:22	
Aluminum, Total	1200	5.0	ug/l	1	01/17/18 16:26	
Antimony, Dissolved	0.57	0.50	ug/l	1	01/17/18 16:22	
Antimony, Total	1.8	0.50	ug/l	1	01/17/18 16:26	
Arsenic, Dissolved	ND	0.40	ug/l	1	01/17/18 16:22	
Arsenic, Total	0.85	0.40	ug/l	1	01/17/18 16:26	
Cadmium, Dissolved	ND	0.10	ug/l	1	01/17/18 16:22	
Cadmium, Total	0.11	0.10	ug/l	1	01/17/18 16:26	
Chromium, Dissolved	0.22	0.20	ug/l	1	01/17/18 16:22	
Chromium, Total	2.4	0.20	ug/l	1	01/17/18 16:26	
Copper, Dissolved	4.7	0.50	ug/l	1	01/17/18 16:22	
Copper, Total	13	0.50	ug/l	1	01/17/18 16:26	
Iron, Dissolved	29	20	ug/l	1	01/17/18 16:22	
Iron, Total	1600	20	ug/l	1	01/17/18 16:26	
Lead, Dissolved	0.20	0.20	ug/l	1	01/17/18 16:22	
Lead, Total	5.5	0.20	ug/l	1	01/17/18 16:26	
Nickel, Dissolved	0.82	0.80	ug/l	1	01/17/18 16:22	
Nickel, Total	2.6	0.80	ug/l	1	01/17/18 16:26	
Zinc, Dissolved	58	5.0	ug/l	1	01/17/18 16:22	
Zinc, Total	130	5.0	ug/l	1	01/17/18 16:26	
Microbiological Parameters by Standard Methods						
Method: Enterolert	Batch ID: W8B0383	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Enterococcus	2500	10	MPN/100ml	10	01/10/18 19:00	
Method: SM 9221B	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Total Coliform	130000	200	MPN/100ml	100	02/03/18 11:26	
Method: SM 9221E	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
Fecal Coliform	8000	200	MPN/100ml	100	02/02/18 11:38	
Method: SM 9221F	Batch ID: W8B0401	Instr: Inst	Prepared: 01/09/18 19:00	Analyst: slh		
E. coli	5000	200	MPN/100ml	100	02/02/18 11:38	
Semivolatile Organics - Low Level by Tandem GC/MS/MS						
Method: EPA 625.1	Batch ID: W8A0599	Instr: GCMS15	Prepared: 01/11/18 09:34	Analyst: EFC		
Acenaphthene	ND	50	ng/l	1	01/24/18 00:51	M-02

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: BDW-027A

Sampled: 01/09/18 16:55 by ES/TM

8A09180-03 (Water)

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Method: EPA 625.1	Batch ID: W8A0599	Instr: GCMS15	Prepared: 01/11/18 09:34	Analyst: EFC		
Acenaphthylene	ND	50	ng/l	1	01/24/18 00:51	M-02
Anthracene	ND	50	ng/l	1	01/24/18 00:51	M-02
Benzo (a) anthracene	ND	50	ng/l	1	01/24/18 00:51	M-02
Benzo (a) pyrene	ND	50	ng/l	1	02/16/18 05:40	M-02
Benzo (b) fluoranthene	ND	50	ng/l	1	02/16/18 05:40	M-02
Benzo (g,h,i) perylene	ND	50	ng/l	1	02/16/18 05:40	M-02
Benzo (k) fluoranthene	ND	50	ng/l	1	02/16/18 05:40	M-02
Chrysene	ND	50	ng/l	1	01/24/18 00:51	M-02
Dibenzo (a,h) anthracene	ND	50	ng/l	1	02/16/18 05:40	M-02
Fluoranthene	ND	50	ng/l	1	01/24/18 00:51	M-02
Fluorene	ND	50	ng/l	1	01/24/18 00:51	M-02
Indeno (1,2,3-cd) pyrene	ND	50	ng/l	1	02/16/18 05:40	M-02
Naphthalene	ND	50	ng/l	1	01/24/18 00:51	M-02
Phenanthrene	ND	50	ng/l	1	01/24/18 00:51	M-02
Pyrene	ND	50	ng/l	1	01/24/18 00:51	M-02
Surrogate(s)						
1,3-Dimethyl-2-nitrobenzene	73% Conc: 735	50-150			01/24/18 00:51	M-02
Perylene-d12	65% Conc: 650	50-150			01/24/18 00:51	M-02

Sample: Trip Blank

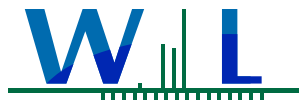
Sampled: 01/09/18 0:00 by ES/TM

8A09180-04 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Mercury - Low Level by CVAFS

Method: EPA 1631E	Batch ID: W8A0936	Instr: HG02	Prepared: 01/10/18 19:11			Analyst: aln	
Mercury, Dissolved		1.3	0.50	ng/l	1	01/29/18 16:34	B
Mercury, Total		ND	0.50	ng/l	1	01/29/18 16:34	



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Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Quality Control Results

Anions by IC, EPA Method 300.0

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0476 - EPA 300.0										
Blank (W8A0476-BLK1)				Prepared & Analyzed: 01/10/18						
NO2+NO3 as N	ND	0.11	mg/l							
LCS (W8A0476-BS1)				Prepared & Analyzed: 01/10/18						
NO2+NO3 as N	3.89	0.11	mg/l	4.00		97	90-110			
Matrix Spike (W8A0476-MS1)				Prepared & Analyzed: 01/10/18						
NO2+NO3 as N	8.74	0.23	mg/l	8.00	4.13	58	84-115			MS-05
Matrix Spike (W8A0476-MS2)				Prepared & Analyzed: 01/10/18						
NO2+NO3 as N	4.33	0.11	mg/l	4.00	0.153	105	84-115			
Matrix Spike Dup (W8A0476-MSD1)				Prepared & Analyzed: 01/10/18						
NO2+NO3 as N	8.87	0.23	mg/l	8.00	4.13	59	84-115	1	20	MS-05
Matrix Spike Dup (W8A0476-MSD2)				Prepared & Analyzed: 01/10/18						
NO2+NO3 as N	4.25	0.11	mg/l	4.00	0.153	102	84-115	2	20	
Batch: W8A0586 - EPA 300.0										
Blank (W8A0586-BLK1)				Prepared & Analyzed: 01/11/18						
Chloride, Total	ND	0.50	mg/l							
Sulfate as SO4	ND	0.50	mg/l							
LCS (W8A0586-BS1)				Prepared & Analyzed: 01/11/18						
Chloride, Total	10.2	0.50	mg/l	10.0		102	90-110			
Sulfate as SO4	10.3	0.50	mg/l	10.1		102	90-110			
Matrix Spike (W8A0586-MS1)				Prepared & Analyzed: 01/11/18						
Chloride, Total	155	5.0	mg/l	100	54.8	100	76-118			
Sulfate as SO4	171	5.0	mg/l	101	66.6	103	78-111			
Matrix Spike (W8A0586-MS2)				Prepared & Analyzed: 01/11/18						
Chloride, Total	153	5.0	mg/l	100	51.0	102	76-118			
Sulfate as SO4	154	5.0	mg/l	101	47.6	105	78-111			
Matrix Spike Dup (W8A0586-MSD1)				Prepared & Analyzed: 01/11/18						
Chloride, Total	155	5.0	mg/l	100	54.8	100	76-118	0.06	20	
Sulfate as SO4	171	5.0	mg/l	101	66.6	103	78-111	0.1	20	
Matrix Spike Dup (W8A0586-MSD2)				Prepared & Analyzed: 01/11/18						
Chloride, Total	153	5.0	mg/l	100	51.0	102	76-118	0	20	
Sulfate as SO4	154	5.0	mg/l	101	47.6	105	78-111	0.03	20	



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Quality Control Results

(Continued)

Chlorinated Acids Herbicides by GC/ECD

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0820 - EPA 515.3										
Blank (W8A0820-BLK1)				Prepared: 01/15/18 Analyzed: 01/18/18						
2,4,5-T	ND	0.20	ug/l							
2,4,5-TP (Silvex)	ND	0.20	ug/l							
2,4-D	ND	0.40	ug/l							
2,4-DB	ND	2.0	ug/l							
3,5-Dichlorobenzoic acid	ND	1.0	ug/l							
Acifluorfen	ND	0.40	ug/l							
Bentazon	ND	2.0	ug/l							
Dalapon	ND	0.40	ug/l							
DCPA	ND	0.10	ug/l							
Dicamba	ND	0.60	ug/l							
Dichloroprop	ND	0.30	ug/l							
Dinoseb	ND	0.40	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	0.60	ug/l							
<i>Surrogate(s)</i>										
2,4-DCAA		9.30	ug/l	10.0		93	70-130			
LCS (W8A0820-B51)				Prepared: 01/15/18 Analyzed: 01/18/18						
2,4,5-T	4.26	0.20	ug/l	4.00		106	70-130			
2,4,5-TP (Silvex)	4.24	0.20	ug/l	4.00		106	70-130			
2,4-D	8.65	0.40	ug/l	8.00		108	70-130			
2,4-DB	14.7	2.0	ug/l	16.0		92	70-130			
3,5-Dichlorobenzoic acid	8.11	1.0	ug/l	8.00		101	70-130			
Acifluorfen	4.54	0.40	ug/l	4.00		114	70-130			
Bentazon	17.3	2.0	ug/l	16.0		108	70-130			
Dalapon	7.81	0.40	ug/l	8.00		98	70-130			
DCPA	4.21	0.10	ug/l	4.00		105	70-130			
Dicamba	8.09	0.60	ug/l	8.00		101	70-130			
Dichloroprop	7.79	0.30	ug/l	8.00		97	70-130			
Dinoseb	4.27	0.40	ug/l	4.00		107	70-130			
Pentachlorophenol	4.05	0.20	ug/l	4.00		101	70-130			
Picloram	4.21	0.60	ug/l	4.00		105	70-130			
<i>Surrogate(s)</i>										
2,4-DCAA		10.1	ug/l	10.0		101	70-130			
Matrix Spike (W8A0820-MS1)				Source: 8A09180-01 Prepared: 01/15/18 Analyzed: 01/18/18						
2,4,5-T	2.79	0.20	ug/l	4.00	ND	70	70-130			
2,4,5-TP (Silvex)	4.13	0.20	ug/l	4.00	ND	103	70-130			
2,4-D	9.39	0.40	ug/l	8.00	ND	117	70-130			



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Quality Control Results

(Continued)

Chlorinated Acids Herbicides by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0820 - EPA 515.3 (Continued)										
Matrix Spike (W8A0820-MS1)			Source: 8A09180-01		Prepared: 01/15/18 Analyzed: 01/18/18					
2,4-DB	19.7	2.0	ug/l	16.0	ND	123	70-130			
3,5-Dichlorobenzoic acid	9.06	1.0	ug/l	8.00	ND	113	70-130			
Acifluorfen	4.54	0.40	ug/l	4.00	ND	114	70-130			
Bentazon	18.2	2.0	ug/l	16.0	ND	113	70-130			
Dalapon	7.19	0.40	ug/l	8.00	ND	90	70-130			
DCPA	4.04	0.10	ug/l	4.00	ND	101	70-130			
Dicamba	8.02	0.60	ug/l	8.00	ND	100	70-130			
Dichloroprop	8.42	0.30	ug/l	8.00	ND	105	70-130			
Dinoseb	4.50	0.40	ug/l	4.00	ND	112	70-130			
Pentachlorophenol	4.46	0.20	ug/l	4.00	0.611	96	70-130			
Picloram	4.08	0.60	ug/l	4.00	ND	102	70-130			
<i>Surrogate(s)</i>										
2,4-DCAA		10.5	ug/l	10.0		105	70-130			
Matrix Spike Dup (W8A0820-MSD1)			Source: 8A09180-01		Prepared: 01/15/18 Analyzed: 01/18/18					
2,4,5-T	2.88	0.20	ug/l	4.00	ND	72	70-130	3	30	
2,4,5-TP (Silvex)	4.17	0.20	ug/l	4.00	ND	104	70-130	0.9	30	
2,4-D	10.1	0.40	ug/l	8.00	ND	127	70-130	8	30	
2,4-DB	21.6	2.0	ug/l	16.0	ND	135	70-130	9	30	MS-05
3,5-Dichlorobenzoic acid	10.6	1.0	ug/l	8.00	ND	133	70-130	16	30	MS-05
Acifluorfen	4.62	0.40	ug/l	4.00	ND	116	70-130	2	30	
Bentazon	18.9	2.0	ug/l	16.0	ND	118	70-130	4	30	
Dalapon	7.63	0.40	ug/l	8.00	ND	95	70-130	6	30	
DCPA	4.05	0.10	ug/l	4.00	ND	101	70-130	0.2	30	
Dicamba	8.23	0.60	ug/l	8.00	ND	103	70-130	3	30	
Dichloroprop	9.06	0.30	ug/l	8.00	ND	113	70-130	7	30	
Dinoseb	4.73	0.40	ug/l	4.00	ND	118	70-130	5	30	
Pentachlorophenol	4.62	0.20	ug/l	4.00	0.611	100	70-130	3	30	
Picloram	4.21	0.60	ug/l	4.00	ND	105	70-130	3	30	
<i>Surrogate(s)</i>										
2,4-DCAA		10.8	ug/l	10.0		108	70-130			



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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0475 - EPA 180.1										
Blank (W8A0475-BLK1)				Prepared & Analyzed: 01/10/18						
Turbidity	ND	0.10	NTU							
LCS (W8A0475-BS1)				Prepared & Analyzed: 01/10/18						
Turbidity	6.91	0.10	NTU	6.99		99	90-110			
Duplicate (W8A0475-DUP1)				Source: 8A09151-05 Prepared & Analyzed: 01/10/18						
Turbidity	3.71	0.10	NTU		3.77			2	10	
Batch: W8A0502 - SM 5540C										
Blank (W8A0502-BLK1)				Prepared & Analyzed: 01/10/18						
MBAS	ND	0.050	mg/l							
LCS (W8A0502-BS1)				Prepared & Analyzed: 01/10/18						
MBAS	0.207	0.050	mg/l	0.200		104	82-115			
LCS Dup (W8A0502-BSD1)				Prepared & Analyzed: 01/10/18						
MBAS	0.208	0.050	mg/l	0.200		104	82-115	0.1	20	
Matrix Spike (W8A0502-MS1)				Source: 8A05010-01 Prepared & Analyzed: 01/10/18						
MBAS	0.201	0.050	mg/l	0.200	ND	101	74-123			
Matrix Spike Dup (W8A0502-MSD1)				Source: 8A05010-01 Prepared & Analyzed: 01/10/18						
MBAS	0.214	0.050	mg/l	0.200	ND	107	74-123	6	20	
Batch: W8A0520 - SM 2540C										
Blank (W8A0520-BLK1)				Prepared: 01/10/18 Analyzed: 01/14/18						
Total Dissolved Solids	ND	10	mg/l							
LCS (W8A0520-BS1)				Prepared: 01/10/18 Analyzed: 01/14/18						
Total Dissolved Solids	827	10	mg/l	824		100	96-102			
Duplicate (W8A0520-DUP1)				Source: 8A09031-01 Prepared: 01/10/18 Analyzed: 01/14/18						
Total Dissolved Solids	1240	10	mg/l		1250			1	10	
Duplicate (W8A0520-DUP2)				Source: 8A10010-01 Prepared: 01/10/18 Analyzed: 01/14/18						
Total Dissolved Solids	2510	10	mg/l		2470			2	10	
Batch: W8A0598 - SM 5310B										
Blank (W8A0598-BLK1)				Prepared & Analyzed: 01/11/18						
Total Organic Carbon (TOC)	ND	0.10	mg/l							
LCS (W8A0598-BS1)				Prepared & Analyzed: 01/11/18						
Total Organic Carbon (TOC)	0.942	0.10	mg/l	1.00		94	85-115			
LCS Dup (W8A0598-BSD1)				Prepared & Analyzed: 01/11/18						
Total Organic Carbon (TOC)	0.968	0.10	mg/l	1.00		97	85-115	3	20	
Batch: W8A0604 - SM 5210B										
LCS (W8A0604-BS1)				Prepared: 01/11/18 Analyzed: 01/16/18						
Biochemical Oxygen Demand	190	2.0	mg/l	198		96	85-115			
Duplicate (W8A0604-DUP1)				Source: 8A10127-03 Prepared: 01/11/18 Analyzed: 01/16/18						

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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0604 - SM 5210B (Continued)										
Duplicate (W8A0604-DUP1)		Source: 8A10127-03		Prepared: 01/11/18		Analyzed: 01/16/18				
Biochemical Oxygen Demand	14.3	2.0	mg/l		13.8			3	20	
Batch: W8A0679 - EPA 365.1										
Blank (W8A0679-BLK1)				Prepared: 01/11/18		Analyzed: 01/16/18				
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W8A0679-BS1)				Prepared: 01/11/18		Analyzed: 01/16/18				
Phosphorus as P, Total	0.0529	0.010	mg/l	0.0500		106	90-110			
Matrix Spike (W8A0679-MS1)		Source: 8A09143-01		Prepared: 01/11/18		Analyzed: 01/16/18				
Phosphorus as P, Total	0.104	0.010	mg/l	0.0500	0.0555	97	90-110			
Matrix Spike (W8A0679-MS2)		Source: 8A09180-03		Prepared: 01/11/18		Analyzed: 01/16/18				
Phosphorus as P, Total	0.202	0.020	mg/l	0.0500	0.152	100	90-110			
Matrix Spike Dup (W8A0679-MSD1)		Source: 8A09143-01		Prepared: 01/11/18		Analyzed: 01/16/18				
Phosphorus as P, Total	0.104	0.010	mg/l	0.0500	0.0555	97	90-110	0	20	
Matrix Spike Dup (W8A0679-MSD2)		Source: 8A09180-03		Prepared: 01/11/18		Analyzed: 01/16/18				
Phosphorus as P, Total	0.202	0.020	mg/l	0.0500	0.152	100	90-110	0	20	
Batch: W8A0744 - SM 2540D										
Blank (W8A0744-BLK1)				Prepared & Analyzed: 01/12/18						
Total Suspended Solids	ND	5	mg/l							
LCS (W8A0744-BS1)				Prepared & Analyzed: 01/12/18						
Total Suspended Solids	52.0	5	mg/l	51.0		102	90-110			
Duplicate (W8A0744-DUP1)		Source: 8A09180-01		Prepared & Analyzed: 01/12/18						
Total Suspended Solids	22.0	5	mg/l		23.0			4	20	
Duplicate (W8A0744-DUP2)		Source: 8A09180-02		Prepared & Analyzed: 01/12/18						
Total Suspended Solids	52.0	5	mg/l		51.0			2	20	
Batch: W8A0745 - EPA 160.4										
Blank (W8A0745-BLK1)				Prepared & Analyzed: 01/12/18						
Volatile Suspended Solids	ND	5.0	mg/l							
LCS (W8A0745-BS1)				Prepared & Analyzed: 01/12/18						
Volatile Suspended Solids	38	5.0	mg/l	36.2		105	90-110			
Duplicate (W8A0745-DUP1)		Source: 8A09180-01		Prepared & Analyzed: 01/12/18						
Volatile Suspended Solids	13	5.0	mg/l		13			0	15	
Duplicate (W8A0745-DUP2)		Source: 8A09180-02		Prepared & Analyzed: 01/12/18						
Volatile Suspended Solids	12	5.0	mg/l		11			9	15	
Batch: W8A0787 - SM 2320B										
Blank (W8A0787-BLK1)				Prepared: 01/12/18		Analyzed: 01/15/18				
Alkalinity as CaCO3	ND	2.0	mg/l							
LCS (W8A0787-BS1)				Prepared: 01/12/18		Analyzed: 01/15/18				

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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0787 - SM 2320B (Continued)										
LCS (W8A0787-BS1)				Prepared: 01/12/18 Analyzed: 01/15/18						
Alkalinity as CaCO3	239	2.0	mg/l	250		96	94-108			
Duplicate (W8A0787-DUP1)				Source: 8A10055-01 Prepared: 01/12/18 Analyzed: 01/15/18						
Alkalinity as CaCO3	151	2.0	mg/l		153			2	15	
Batch: W8A0832 - EPA 420.4										
Blank (W8A0832-BLK1)				Prepared: 01/15/18 Analyzed: 01/19/18						
Phenolics	ND	0.010	mg/l							
LCS (W8A0832-BS1)				Prepared: 01/15/18 Analyzed: 01/19/18						
Phenolics	0.103	0.010	mg/l	0.100		103	90-110			
Matrix Spike (W8A0832-MS1)				Source: 8A09180-01 Prepared: 01/15/18 Analyzed: 01/19/18						
Phenolics	0.278	0.010	mg/l	0.250	0.0134	106	90-110			
Matrix Spike Dup (W8A0832-MSD1)				Source: 8A09180-01 Prepared: 01/15/18 Analyzed: 01/19/18						
Phenolics	0.277	0.010	mg/l	0.250	0.0134	106	90-110	0.4	20	
Batch: W8A0863 - EPA 350.1										
Blank (W8A0863-BLK1)				Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	ND	0.10	mg/l							
Blank (W8A0863-BLK2)				Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	ND	0.10	mg/l							
LCS (W8A0863-BS1)				Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	0.244	0.10	mg/l	0.250		98	90-110			
LCS (W8A0863-BS2)				Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	0.248	0.10	mg/l	0.250		99	90-110			
Matrix Spike (W8A0863-MS1)				Source: 8A09143-01 Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	0.246	0.10	mg/l	0.250	ND	98	90-110			
Matrix Spike (W8A0863-MS2)				Source: 8A09143-06 Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	1.17	0.10	mg/l	0.250	0.936	93	90-110			
Matrix Spike Dup (W8A0863-MSD1)				Source: 8A09143-01 Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	0.244	0.10	mg/l	0.250	ND	98	90-110	0.5	15	
Matrix Spike Dup (W8A0863-MSD2)				Source: 8A09143-06 Prepared: 01/15/18 Analyzed: 01/19/18						
Ammonia as N	1.17	0.10	mg/l	0.250	0.936	94	90-110	0.2	15	
Batch: W8A0885 - SM 2510B										
Blank (W8A0885-BLK1)				Prepared & Analyzed: 01/15/18						
Specific Conductance (EC)	ND	2.0	umhos/cm							
LCS (W8A0885-BS1)				Prepared & Analyzed: 01/15/18						
Specific Conductance (EC)	206	2.0	umhos/cm	200		103	95-105			
Duplicate (W8A0885-DUP1)				Source: 8A09140-01 Prepared & Analyzed: 01/15/18						
Specific Conductance (EC)	59.4	2.0	umhos/cm		58.4			2	5	

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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0932 - EPA 365.3										
Blank (W8A0932-BLK1)				Prepared: 01/16/18 Analyzed: 01/22/18						
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W8A0932-BS1)				Prepared: 01/16/18 Analyzed: 01/22/18						
Phosphorus, Dissolved	0.200	0.010	mg/l	0.200		100	90-110			
Matrix Spike (W8A0932-MS1)				Source: 8A09096-01 Prepared: 01/16/18 Analyzed: 01/22/18						
Phosphorus, Dissolved	0.630	0.010	mg/l	0.200	0.439	95	90-110			
Matrix Spike Dup (W8A0932-MSD1)				Source: 8A09096-01 Prepared: 01/16/18 Analyzed: 01/22/18						
Phosphorus, Dissolved	0.625	0.010	mg/l	0.200	0.439	93	90-110	0.8	20	
Batch: W8A0946 - EPA 410.4										
Blank (W8A0946-BLK1)				Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	ND	5.0	mg/l							
LCS (W8A0946-BS1)				Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	90.2	5.0	mg/l	100		90	90-110			
Duplicate (W8A0946-DUP1)				Source: 8A16014-01 Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	1500	25	mg/l		1480			2	15	
Matrix Spike (W8A0946-MS1)				Source: 8A09143-01 Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	207	20	mg/l	200	19.6	94	90-110			
Matrix Spike (W8A0946-MS2)				Source: 8A09168-01 Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	231	20	mg/l	200	35.5	98	90-110			
Matrix Spike Dup (W8A0946-MSD1)				Source: 8A09143-01 Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	205	20	mg/l	200	19.6	93	90-110	0.8	15	
Matrix Spike Dup (W8A0946-MSD2)				Source: 8A09168-01 Prepared: 01/16/18 Analyzed: 01/18/18						
Chemical Oxygen Demand	230	20	mg/l	200	35.5	97	90-110	0.4	15	
Batch: W8A0954 - EPA 335.4										
Blank (W8A0954-BLK1)				Prepared: 01/16/18 Analyzed: 01/22/18						
Cyanide, Total	ND	5.0	ug/l							
LCS (W8A0954-BS1)				Prepared: 01/16/18 Analyzed: 01/22/18						
Cyanide, Total	99.0	5.0	ug/l	100		99	90-110			
Matrix Spike (W8A0954-MS1)				Source: 8A09180-03 Prepared: 01/16/18 Analyzed: 01/22/18						
Cyanide, Total	200	5.0	ug/l	200	ND	100	90-110			
Matrix Spike Dup (W8A0954-MSD1)				Source: 8A09180-03 Prepared: 01/16/18 Analyzed: 01/22/18						
Cyanide, Total	199	5.0	ug/l	200	ND	100	90-110	0.5	20	
Batch: W8A1234 - EPA 351.2										
Blank (W8A1234-BLK1)				Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	ND	0.10	mg/l							
Blank (W8A1234-BLK2)				Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	ND	0.10	mg/l							

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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A1234 - EPA 351.2 (Continued)										
LCS (W8A1234-BS1)				Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	0.968	0.10	mg/l	1.00		97	90-110			
LCS (W8A1234-BS2)				Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	1.00	0.10	mg/l	1.00		100	90-110			
Matrix Spike (W8A1234-MS1)				Source: 8A12067-02 Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	1.24	0.10	mg/l	1.00	0.248	99	90-110			
Matrix Spike (W8A1234-MS2)				Source: 8A12067-03 Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	1.30	0.10	mg/l	1.00	0.236	107	90-110			
Matrix Spike Dup (W8A1234-MSD1)				Source: 8A12067-02 Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	1.21	0.10	mg/l	1.00	0.248	97	90-110	2	10	
Matrix Spike Dup (W8A1234-MSD2)				Source: 8A12067-03 Prepared: 01/21/18 Analyzed: 01/24/18						
TKN	1.20	0.10	mg/l	1.00	0.236	97	90-110	8	10	

Hexavalent Chromium by IC

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0458 - EPA 218.6										
Blank (W8A0458-BLK1)				Prepared: 01/09/18 Analyzed: 01/10/18						
Chromium 6+	ND	0.020	ug/l							
LCS (W8A0458-BS1)				Prepared: 01/09/18 Analyzed: 01/10/18						
Chromium 6+	4.90	0.020	ug/l	5.00		98	90-110			
Matrix Spike (W8A0458-MS1)				Source: 8A05046-06RE1 Prepared: 01/09/18 Analyzed: 01/10/18						
Chromium 6+	5.06	0.020	ug/l	5.00	0.0993	99	88-112			
Matrix Spike Dup (W8A0458-MSD1)				Source: 8A05046-06RE1 Prepared: 01/09/18 Analyzed: 01/10/18						
Chromium 6+	5.04	0.020	ug/l	5.00	0.0993	99	88-112	0.4	10	
Batch: W8A1076 - EPA 218.6										
Blank (W8A1076-BLK1)				Prepared & Analyzed: 01/17/18						
Chromium 6+, Dissolved	ND	0.020	ug/l							
LCS (W8A1076-BS1)				Prepared & Analyzed: 01/17/18						
Chromium 6+, Dissolved	4.99	0.020	ug/l	5.00		100	90-110			
Matrix Spike (W8A1076-MS1)				Source: 8A09096-01 Prepared & Analyzed: 01/17/18						
Chromium 6+, Dissolved	5.08	0.020	ug/l	5.00	0.248	97	88-112			
Matrix Spike Dup (W8A1076-MSD1)				Source: 8A09096-01 Prepared & Analyzed: 01/17/18						
Chromium 6+, Dissolved	5.30	0.020	ug/l	5.00	0.248	101	88-112	4	10	



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Hydrocarbons by GC/FID

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0490 - EPA 8015D										
Blank (W8A0490-BLK1)				Prepared: 01/10/18 Analyzed: 01/18/18						
Diesel Range Organics	ND	0.10	mg/l							
Oil Range Organics	ND	0.50	mg/l							
<i>Surrogate(s)</i>										
<i>n-Tetracosane</i>		0.233	mg/l	0.250		93	64-155			
LCS (W8A0490-BS1)				Prepared: 01/10/18 Analyzed: 01/18/18						
Diesel Range Organics	0.494	0.10	mg/l	0.500		99	56-136			
<i>Surrogate(s)</i>										
<i>n-Tetracosane</i>		0.233	mg/l	0.250		93	64-155			
LCS Dup (W8A0490-BSD1)				Prepared: 01/10/18 Analyzed: 01/18/18						
Diesel Range Organics	0.477	0.10	mg/l	0.500		95	56-136	4	25	
<i>Surrogate(s)</i>										
<i>n-Tetracosane</i>		0.221	mg/l	0.250		88	64-155			

Mercury - Low Level by CVAFS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0936 - EPA 1631E										
Blank (W8A0936-BLK1)				Prepared: 01/16/18 Analyzed: 01/29/18						
Mercury, Dissolved	1.40	0.50	ng/l							B
Mercury, Total	ND	0.50	ng/l							
LCS (W8A0936-BS1)				Prepared: 01/16/18 Analyzed: 01/29/18						
Mercury, Dissolved	4.74	0.50	ng/l	5.00		95	85-115			
Mercury, Total	4.74	0.50	ng/l	5.00		95	85-115			
Matrix Spike (W8A0936-MS1)				Source: 8A11086-01 Prepared: 01/16/18 Analyzed: 01/29/18						
Mercury, Dissolved	7.26	0.50	ng/l	5.00	2.10	103	75-125			
Mercury, Total	7.26	0.50	ng/l	5.00	2.10	103	75-125			
Matrix Spike Dup (W8A0936-MSD1)				Source: 8A11086-01 Prepared: 01/16/18 Analyzed: 01/29/18						
Mercury, Dissolved	6.59	0.50	ng/l	5.00	2.10	90	75-125	10	20	
Mercury, Total	6.59	0.50	ng/l	5.00	2.10	90	75-125	10	20	



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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0921 - EPA 200.7										
Blank (W8A0921-BLK1)				Prepared: 01/16/18 Analyzed: 01/17/18						
Calcium, Total	ND	0.100	mg/l							
LCS (W8A0921-B51)				Prepared: 01/16/18 Analyzed: 01/17/18						
Calcium, Total	52.3	0.100	mg/l	50.2		104	85-115			
Matrix Spike (W8A0921-MS1)				Source: 8A10098-01 Prepared: 01/16/18 Analyzed: 01/17/18						
Calcium, Total	54.6	0.100	mg/l	50.2	3.34	102	70-130			
Matrix Spike (W8A0921-MS2)				Source: 8A10098-02 Prepared: 01/16/18 Analyzed: 01/17/18						
Calcium, Total	59.1	0.100	mg/l	50.2	7.49	103	70-130			
Matrix Spike Dup (W8A0921-MSD1)				Source: 8A10098-01 Prepared: 01/16/18 Analyzed: 01/17/18						
Calcium, Total	54.6	0.100	mg/l	50.2	3.34	102	70-130	0	30	
Matrix Spike Dup (W8A0921-MSD2)				Source: 8A10098-02 Prepared: 01/16/18 Analyzed: 01/17/18						
Calcium, Total	59.8	0.100	mg/l	50.2	7.49	104	70-130	1	30	
Batch: W8A0928 - EPA 200.8										
Blank (W8A0928-BLK1)				Prepared: 01/16/18 Analyzed: 01/17/18						
Aluminum, Dissolved	ND	5.0	ug/l							B-07
Aluminum, Total	ND	5.0	ug/l							
Antimony, Dissolved	ND	0.50	ug/l							
Antimony, Total	ND	0.50	ug/l							
Arsenic, Dissolved	ND	0.40	ug/l							
Arsenic, Total	ND	0.40	ug/l							
Cadmium, Dissolved	ND	0.10	ug/l							
Cadmium, Total	ND	0.10	ug/l							
Chromium, Dissolved	ND	0.20	ug/l							
Chromium, Total	ND	0.20	ug/l							
Copper, Dissolved	ND	0.50	ug/l							
Copper, Total	ND	0.50	ug/l							
Iron, Dissolved	ND	20	ug/l							
Iron, Total	ND	20	ug/l							
Lead, Dissolved	ND	0.20	ug/l							
Lead, Total	ND	0.20	ug/l							
Nickel, Dissolved	ND	0.80	ug/l							
Nickel, Total	ND	0.80	ug/l							
Zinc, Dissolved	ND	5.0	ug/l							
Zinc, Total	ND	5.0	ug/l							
LCS (W8A0928-B51)				Prepared: 01/16/18 Analyzed: 01/17/18						
Aluminum, Dissolved	51.4	5.0	ug/l	50.0		103	85-115			
Aluminum, Total	51.4	5.0	ug/l	50.0		103	85-115			
Antimony, Dissolved	49.9	0.50	ug/l	50.0		100	85-115			

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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0928 - EPA 200.8 (Continued)										
LCS (W8A0928-BS1)				Prepared: 01/16/18 Analyzed: 01/17/18						
Antimony, Total	49.9	0.50	ug/l	50.0		100	85-115			
Arsenic, Dissolved	51.5	0.40	ug/l	50.0		103	85-115			
Arsenic, Total	51.5	0.40	ug/l	50.0		103	85-115			
Cadmium, Dissolved	50.1	0.10	ug/l	50.0		100	85-115			
Cadmium, Total	50.1	0.10	ug/l	50.0		100	85-115			
Chromium, Dissolved	48.7	0.20	ug/l	50.0		97	85-115			
Chromium, Total	48.7	0.20	ug/l	50.0		97	85-115			
Copper, Dissolved	50.6	0.50	ug/l	50.0		101	85-115			
Copper, Total	50.6	0.50	ug/l	50.0		101	85-115			
Iron, Dissolved	1060	20	ug/l	1050		101	85-115			
Iron, Total	1060	20	ug/l	1050		101	85-115			
Lead, Dissolved	49.7	0.20	ug/l	50.0		99	85-115			
Lead, Total	49.7	0.20	ug/l	50.0		99	85-115			
Nickel, Dissolved	50.0	0.80	ug/l	50.0		100	85-115			
Nickel, Total	50.0	0.80	ug/l	50.0		100	85-115			
Zinc, Dissolved	51.2	5.0	ug/l	50.0		102	85-115			
Zinc, Total	51.2	5.0	ug/l	50.0		102	85-115			
Matrix Spike (W8A0928-MS1)				Source: 8A09180-01 Prepared: 01/16/18 Analyzed: 01/17/18						
Aluminum, Total	600	5.0	ug/l	50.0	515	168	70-130			MS-02
Antimony, Total	50.7	0.50	ug/l	50.0	2.98	95	70-130			
Arsenic, Total	51.1	0.40	ug/l	50.0	1.63	99	70-130			
Cadmium, Total	49.0	0.10	ug/l	50.0	0.149	98	70-130			
Chromium, Total	50.6	0.20	ug/l	50.0	1.63	98	70-130			
Copper, Total	84.5	0.50	ug/l	50.0	34.4	100	70-130			
Iron, Total	1830	20	ug/l	1050	734	104	70-130			
Lead, Total	52.7	0.20	ug/l	50.0	4.39	97	70-130			
Nickel, Total	57.2	0.80	ug/l	50.0	7.40	100	70-130			
Zinc, Total	209	5.0	ug/l	50.0	161	95	70-130			
Matrix Spike (W8A0928-MS2)				Source: 8A09180-02 Prepared: 01/16/18 Analyzed: 01/17/18						
Aluminum, Total	2280	5.0	ug/l	50.0	2030	498	70-130			MS-02
Antimony, Total	48.8	0.50	ug/l	50.0	3.69	90	70-130			
Arsenic, Total	54.6	0.40	ug/l	50.0	1.13	107	70-130			
Cadmium, Total	55.4	0.10	ug/l	50.0	0.132	111	70-130			
Chromium, Total	55.6	0.20	ug/l	50.0	3.54	104	70-130			
Copper, Total	67.7	0.50	ug/l	50.0	13.3	109	70-130			
Iron, Total	3780	20	ug/l	1050	2530	119	70-130			
Lead, Total	62.2	0.20	ug/l	50.0	12.9	99	70-130			

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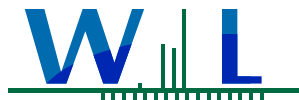
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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0928 - EPA 200.8 (Continued)										
Matrix Spike (W8A0928-MS2)			Source: 8A09180-02		Prepared: 01/16/18 Analyzed: 01/17/18					
Nickel, Total	56.7	0.80	ug/l	50.0	3.43	107	70-130			
Zinc, Total	199	5.0	ug/l	50.0	139	120	70-130			
Matrix Spike Dup (W8A0928-MSD1)			Source: 8A09180-01		Prepared: 01/16/18 Analyzed: 01/17/18					
Aluminum, Total	595	5.0	ug/l	50.0	515	160	70-130	0.7	30	MS-02
Antimony, Total	50.6	0.50	ug/l	50.0	2.98	95	70-130	0.2	30	
Arsenic, Total	51.0	0.40	ug/l	50.0	1.63	99	70-130	0.1	30	
Cadmium, Total	49.1	0.10	ug/l	50.0	0.149	98	70-130	0.2	30	
Chromium, Total	51.0	0.20	ug/l	50.0	1.63	99	70-130	0.9	30	
Copper, Total	85.0	0.50	ug/l	50.0	34.4	101	70-130	0.7	30	
Iron, Total	1820	20	ug/l	1050	734	103	70-130	0.6	30	
Lead, Total	53.9	0.20	ug/l	50.0	4.39	99	70-130	2	30	
Nickel, Total	57.4	0.80	ug/l	50.0	7.40	100	70-130	0.3	30	
Zinc, Total	214	5.0	ug/l	50.0	161	105	70-130	2	30	
Matrix Spike Dup (W8A0928-MSD2)			Source: 8A09180-02		Prepared: 01/16/18 Analyzed: 01/17/18					
Aluminum, Total	2070	5.0	ug/l	50.0	2030	89	70-130	9	30	
Antimony, Total	49.1	0.50	ug/l	50.0	3.69	91	70-130	0.6	30	
Arsenic, Total	50.4	0.40	ug/l	50.0	1.13	99	70-130	8	30	
Cadmium, Total	49.7	0.10	ug/l	50.0	0.132	99	70-130	11	30	
Chromium, Total	52.3	0.20	ug/l	50.0	3.54	98	70-130	6	30	
Copper, Total	63.3	0.50	ug/l	50.0	13.3	100	70-130	7	30	
Iron, Total	3550	20	ug/l	1050	2530	97	70-130	6	30	
Lead, Total	61.7	0.20	ug/l	50.0	12.9	98	70-130	0.9	30	
Nickel, Total	53.8	0.80	ug/l	50.0	3.43	101	70-130	5	30	
Zinc, Total	187	5.0	ug/l	50.0	139	96	70-130	6	30	



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Quality Control Results

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Microbiological Parameters by Standard Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8B0383 - Enterolert										
Blank (W8B0383-BLK1)				Prepared: 01/09/18 Analyzed: 01/10/18						
Enterococcus	ND	1.0	MPN/100ml							
Blank (W8B0383-BLK2)				Prepared: 01/30/18 Analyzed: 01/31/18						
Enterococcus	ND	1.0	MPN/100ml							
Blank (W8B0383-BLK4)				Prepared: 02/01/18 Analyzed: 02/02/18						
Enterococcus	ND	1.0	MPN/100ml							
Blank (W8B0383-BLK5)				Prepared: 02/05/18 Analyzed: 02/06/18						
Enterococcus	ND	1.0	MPN/100ml							
Batch: W8B0401 - SM 9221F										
Blank (W8B0401-BLK2)				Prepared: 01/09/18 Analyzed: 02/02/18						
E. coli	ND	2.0	MPN/100ml							
Fecal Coliform	ND	2.0	MPN/100ml							
Total Coliform	ND	2.0	MPN/100ml							
Blank (W8B0401-BLK3)				Prepared: 01/30/18 Analyzed: 02/03/18						
Total Coliform	ND	2.0	MPN/100ml							
Blank (W8B0401-BLK6)				Prepared: 02/05/18 Analyzed: 02/07/18						
E. coli	ND	2.0	MPN/100ml							
Blank (W8B0401-BLK7)				Prepared: 02/05/18 Analyzed: 02/07/18						
E. coli	ND	2.0	MPN/100ml							



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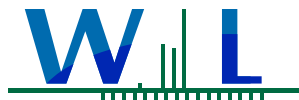
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Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0599 - EPA 625.1										
Blank (W8A0599-BLK1)				Prepared: 01/11/18 Analyzed: 01/23/18						
1-Methylphenanthrene	ND	5.0	ng/l							
Acenaphthene	ND	5.0	ng/l							
Acenaphthylene	ND	5.0	ng/l							
Anthracene	ND	5.0	ng/l							
Benzo (a) anthracene	ND	5.0	ng/l							
Chrysene	ND	5.0	ng/l							
Fluoranthene	ND	5.0	ng/l							
Fluorene	ND	5.0	ng/l							
Naphthalene	5.16	5.0	ng/l							B
Phenanthrene	ND	5.0	ng/l							
Pyrene	ND	5.0	ng/l							
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		83.8	ng/l	100		84	50-150			
Perylene-d12		92.2	ng/l	100		92	50-150			
Blank (W8A0599-BLK2)										
				Prepared: 01/11/18 Analyzed: 02/15/18						
Benzo (a) pyrene	ND	5.0	ng/l							QC-2
Benzo (b) fluoranthene	ND	5.0	ng/l							QC-2
Benzo (e) pyrene	ND	5.0	ng/l							QC-2
Benzo (g,h,i) perylene	ND	5.0	ng/l							QC-2
Benzo (k) fluoranthene	ND	5.0	ng/l							QC-2
Dibenzo (a,h) anthracene	ND	5.0	ng/l							QC-2
Indeno (1,2,3-cd) pyrene	ND	5.0	ng/l							QC-2
Perylene	ND	5.0	ng/l							QC-2
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		115	ng/l	100		115	50-150			QC-2
Perylene-d12		118	ng/l	100		118	50-150			QC-2
LCS (W8A0599-BS1)										
				Prepared: 01/11/18 Analyzed: 01/23/18						
Acenaphthene	34.6	5.0	ng/l	50.0		69	50-150			
Acenaphthylene	36.1	5.0	ng/l	50.0		72	50-150			
Anthracene	37.6	5.0	ng/l	50.0		75	50-150			
Benzo (a) anthracene	35.1	5.0	ng/l	50.0		70	50-150			
Chrysene	30.3	5.0	ng/l	50.0		61	50-150			
Fluoranthene	40.3	5.0	ng/l	50.0		81	50-150			
Fluorene	39.8	5.0	ng/l	50.0		80	50-150			
Naphthalene	37.8	5.0	ng/l	50.0		76	50-150			
Phenanthrene	38.4	5.0	ng/l	50.0		77	50-150			
Pyrene	40.0	5.0	ng/l	50.0		80	50-150			
<i>Surrogate(s)</i>										

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0599 - EPA 625.1 (Continued)										
LCS (W8A0599-BS1)				Prepared: 01/11/18 Analyzed: 01/23/18						
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene		84.7	ng/l	100		85	50-150			
Perylene-d12		88.4	ng/l	100		88	50-150			
LCS (W8A0599-BS2)				Prepared: 01/11/18 Analyzed: 02/15/18						
Benzo (a) pyrene	47.3	5.0	ng/l	50.0		95	50-150			QC-2
Benzo (b) fluoranthene	46.8	5.0	ng/l	50.0		94	50-150			QC-2
Benzo (g,h,i) perylene	36.6	5.0	ng/l	50.0		73	50-150			QC-2
Benzo (k) fluoranthene	47.4	5.0	ng/l	50.0		95	50-150			QC-2
Dibenzo (a,h) anthracene	37.1	5.0	ng/l	50.0		74	50-150			QC-2
Indeno (1,2,3-cd) pyrene	38.0	5.0	ng/l	50.0		76	50-150			QC-2
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene		119	ng/l	100		119	50-150			QC-2
Perylene-d12		114	ng/l	100		114	50-150			QC-2
LCS Dup (W8A0599-BSD1)				Prepared: 01/11/18 Analyzed: 01/23/18						
Acenaphthene	29.5	5.0	ng/l	50.0		59	50-150	16	30	
Acenaphthylene	32.2	5.0	ng/l	50.0		64	50-150	12	30	
Anthracene	34.5	5.0	ng/l	50.0		69	50-150	8	30	
Benzo (a) anthracene	33.3	5.0	ng/l	50.0		67	50-150	5	30	
Chrysene	27.6	5.0	ng/l	50.0		55	50-150	9	30	
Fluoranthene	35.9	5.0	ng/l	50.0		72	50-150	11	30	
Fluorene	34.4	5.0	ng/l	50.0		69	50-150	15	30	
Naphthalene	35.5	5.0	ng/l	50.0		71	50-150	6	30	
Phenanthrene	36.5	5.0	ng/l	50.0		73	50-150	5	30	
Pyrene	35.1	5.0	ng/l	50.0		70	50-150	13	30	
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene		84.5	ng/l	100		85	50-150			
Perylene-d12		102	ng/l	100		102	50-150			
LCS Dup (W8A0599-BSD2)				Prepared: 01/11/18 Analyzed: 02/15/18						
Benzo (a) pyrene	48.7	5.0	ng/l	50.0		97	50-150	3	30	QC-2
Benzo (b) fluoranthene	48.6	5.0	ng/l	50.0		97	50-150	4	30	QC-2
Benzo (g,h,i) perylene	41.9	5.0	ng/l	50.0		84	50-150	14	30	QC-2
Benzo (k) fluoranthene	48.8	5.0	ng/l	50.0		98	50-150	3	30	QC-2
Dibenzo (a,h) anthracene	41.6	5.0	ng/l	50.0		83	50-150	11	30	QC-2
Indeno (1,2,3-cd) pyrene	43.3	5.0	ng/l	50.0		87	50-150	13	30	QC-2
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene		112	ng/l	100		112	50-150			QC-2
Perylene-d12		114	ng/l	100		114	50-150			QC-2
Matrix Spike (W8A0599-MS1)		Source: 8A09146-01		Prepared: 01/11/18 Analyzed: 01/23/18						

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WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W8A0599 - EPA 625.1 (Continued)										
Matrix Spike (W8A0599-MS1)			Source: 8A09146-01		Prepared: 01/11/18 Analyzed: 01/23/18					
Acenaphthene	342	50	ng/l	500	7.80	67	50-150			M-02
Acenaphthylene	381	50	ng/l	500	6.23	75	50-150			M-02
Anthracene	383	50	ng/l	500	ND	77	50-150			M-02
Benzo (a) anthracene	400	50	ng/l	500	ND	80	50-150			M-02
Chrysene	320	50	ng/l	500	ND	64	50-150			M-02
Fluoranthene	427	50	ng/l	500	21.1	81	50-150			M-02
Fluorene	397	50	ng/l	500	14.4	77	50-150			M-02
Naphthalene	399	50	ng/l	500	53.0	69	50-150			M-02
Phenanthrene	364	50	ng/l	500	51.5	63	50-150			M-02
Pyrene	365	50	ng/l	500	ND	73	50-150			M-02
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		918	ng/l	1000		92	50-150			M-02
Perylene-d12		684	ng/l	1000		68	50-150			M-02
Matrix Spike (W8A0599-MS2)			Source: 8A09146-01		Prepared: 01/11/18 Analyzed: 02/15/18					
Benzo (a) pyrene	60.3	5.0	ng/l	50.0	12.4	96	50-150			M-02, QC-2
Benzo (b) fluoranthene	56.2	5.0	ng/l	50.0	11.4	90	50-150			M-02, QC-2
Benzo (g,h,i) perylene	54.8	5.0	ng/l	50.0	23.3	63	50-150			M-02, QC-2
Benzo (k) fluoranthene	57.2	5.0	ng/l	50.0	8.53	97	50-150			M-02, QC-2
Dibenzo (a,h) anthracene	53.1	5.0	ng/l	50.0	19.5	67	50-150			M-02, QC-2
Indeno (1,2,3-cd) pyrene	57.6	5.0	ng/l	50.0	28.2	59	50-150			M-02, QC-2
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		120	ng/l	100		120	50-150			M-02, QC-2
Perylene-d12		84.0	ng/l	100		84	50-150			M-02, QC-2
Matrix Spike Dup (W8A0599-MSD1)			Source: 8A09146-01		Prepared: 01/11/18 Analyzed: 01/23/18					
Acenaphthene	379	50	ng/l	500	7.80	74	50-150	10	30	M-02
Acenaphthylene	425	50	ng/l	500	6.23	84	50-150	11	30	M-02
Anthracene	458	50	ng/l	500	ND	92	50-150	18	30	M-02
Benzo (a) anthracene	444	50	ng/l	500	ND	89	50-150	10	30	M-02
Chrysene	336	50	ng/l	500	ND	67	50-150	5	30	M-02
Fluoranthene	467	50	ng/l	500	21.1	89	50-150	9	30	M-02
Fluorene	454	50	ng/l	500	14.4	88	50-150	13	30	M-02
Naphthalene	437	50	ng/l	500	53.0	77	50-150	9	30	M-02
Phenanthrene	440	50	ng/l	500	51.5	78	50-150	19	30	M-02
Pyrene	382	50	ng/l	500	ND	76	50-150	5	30	M-02
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		884	ng/l	1000		88	50-150			M-02
Perylene-d12		556	ng/l	1000		56	50-150			M-02
Matrix Spike Dup (W8A0599-MSD2)			Source: 8A09146-01		Prepared: 01/11/18 Analyzed: 02/16/18					

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: MS4 - Storm Water Monitoring 2017-2018

Reported:

02/20/2018 08:40

Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W8A0599 - EPA 625.1 (Continued)										
Matrix Spike Dup (W8A0599-MSD2)			Source: 8A09146-01		Prepared: 01/11/18 Analyzed: 02/16/18					
Benzo (a) pyrene	66.7	5.0	ng/l	50.0	12.4	109	50-150	10	30	M-02, QC-2
Benzo (b) fluoranthene	63.6	5.0	ng/l	50.0	11.4	104	50-150	12	30	M-02, QC-2
Benzo (g,h,i) perylene	58.9	5.0	ng/l	50.0	23.3	71	50-150	7	30	M-02, QC-2
Benzo (k) fluoranthene	65.5	5.0	ng/l	50.0	8.53	114	50-150	14	30	M-02, QC-2
Dibenzo (a,h) anthracene	58.7	5.0	ng/l	50.0	19.5	78	50-150	10	30	M-02, QC-2
Indeno (1,2,3-cd) pyrene	59.0	5.0	ng/l	50.0	28.2	62	50-150	2	30	M-02, QC-2
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene		119	ng/l	100		119	50-150			M-02, QC-2
Perylene-d12		75.0	ng/l	100		75	50-150			M-02, QC-2



WECK LABORATORIES, INC.

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Project Number: MS4 - Storm Water Monitoring 2017-2018

Project Manager: Edmond G. Suher

Reported:
02/20/2018 08:40



Notes and Definitions

Item	Definition
*	The recommended holding time for this analysis is only 15 minutes. The sample was analyzed as soon as it was possible but it was received and analyzed past holding time.
B	Blank contamination. The analyte was found in the associated blank as well as in the sample.
B-07	This analyte was found in the method blank at levels above the MDL but below the reporting limit.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
MS-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QC-2	This QC sample was reanalyzed to complement samples that require re-analysis on different date. See analysis date.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Weck Laboratories, Inc.

Analytical Laboratory Services • Since 1964
14859 East Clark Avenue • Industry, CA 91745
Tel 626-336-2139 • Fax 626-336-2634 • www.wacklabs.com

CHAIN OF CUSTODY RECORD

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Analytical Service Quotation

Contact: Ed Suher
Client Name: AEI-CASC Consulting
Address: 2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505
Phone: (818) 841-9004
Fax: (818) 841-8013

Printed: 10/18/2017
Effective: 10/17/17
Expires: 06/30/18

IRWINDALE

Project: MS4 - Storm Water Monitoring 2017-2018

Code	Method	Qty	TAT * (workdays)
Water			
200.7 Hardness	_Varies	1	15
Alkalinity, total - SM 2320B	SM 2320B	1	15
Aluminum - EPA 200.8	EPA 200.8	1	15
Aluminum, dissolved - EPA 200.8	EPA 200.8	1	15
Ammonia-N - EPA 350.1	EPA 350.1	1	15
Antimony - EPA 200.8	EPA 200.8	1	15
Antimony, dissolved - EPA 200.8	EPA 200.8	1	15
Arsenic - EPA 200.8	EPA 200.8	1	15
Arsenic, dissolved - EPA 200.8	EPA 200.8	1	15
Biochemical Oxygen Demand - SM5210B	SM 5210B	1	15
Cadmium - EPA 200.8	EPA 200.8	1	15
Cadmium, dissolved - EPA 200.8	EPA 200.8	1	15
Chemical Oxygen Demand - EPA 410.4	EPA 410.4	1	15
Chloride - EPA 300.0	EPA 300.0	1	15
Chromium - EPA 200.8	EPA 200.8	1	15
Chromium, dissolved - EPA 200.8	EPA 200.8	1	15
Chromium, Hexavalent - EPA 218.6	EPA 218.6	1	15
Chromium, Hexavalent, dissolved - EPA 218.6	EPA 218.6	1	15
Copper - EPA 200.8	EPA 200.8	1	15
Copper, dissolved - EPA 200.8	EPA 200.8	1	15
Cyanide, Total - ASTM D 7511	ASTM D7511	1	15
Dissolved Oxygen - SM 4500O G	SM 4500O-G	1	15
E.Coli Coliform by Enumeration SM9221 F	SM 9221F	1	15
Enterococcus - Enterolert	Enterolert	1	15
EPA 515.3 - Chlorinated Acid Herbicides	EPA 515.3	1	15
EPA 8015B - Diesel & Oil Range Organics (DRO/ORO)	EPA 8015D	1	15
Fecal Coliform by Enumeration SM9221E 3 dilutions	SM 9221E	1	15
Iron - EPA 200.8	EPA 200.8	1	15
Iron, dissolved - EPA 200.8	EPA 200.8	1	15
Lead - EPA 200.8	EPA 200.8	1	15
Lead, dissolved - EPA 200.8	EPA 200.8	1	15
MBAS - SM 5540 C	SM 5540C	1	15
Mercury, Diss, low-level - EPA 1631E	EPA 1631E	1	15
Mercury, total, low-level - EPA 1631E	EPA 1631E	1	15
Nickel - EPA 200.8	EPA 200.8	1	15
Nickel, dissolved - EPA 200.8	EPA 200.8	1	15
Nitrite+Nitrate-N - EPA 300.0	EPA 300.0	1	15
PAHs low level in water by GC/MS/MS	GC/MS/MS	1	15
Phenolics in water - EPA 420.4	EPA 420.4	1	15
Phosphorus Dissolved - EPA 365.3	EPA 365.3	1	15

Bid Project: AEI-CASC Consulting - MS4 - Storm Water Monitoring 2017-2018

Weck Laboratories, Inc. 14859 East Clark Avenue, City of Industry, CA 91745. Phone: (626) 336-2139

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Code	Method	Qty	TAT * (workdays)
Phosphorus, Total as P - EPA 365.1	EPA 365.1	1	15
Specific Conductance (EC) - SM 2510B	SM 2510B	1	15
Sulfate - EPA 300.0	EPA 300.0	1	15
Total Coliforms by Enumeration SM9221B 3 dil.	SM 9221B	1	15
Total Dissolved Solids - SM 2540C	SM 2540C	1	15
Total Kjeldahl Nitrogen by EPA 351.2	EPA 351.2	1	15
Total Organic Carbon - SM 5310C	SM 5310C	1	15
Total Suspended Solids - SM2540D	SM 2540D	1	15
Turbidity - EPA 180.1	EPA 180.1	1	15
Volatile Suspended Solids - 160.4	EPA 160.4	1	15
Zinc - EPA 200.8	EPA 200.8	1	15
Zinc, dissolved - EPA 200.8	EPA 200.8	1	15
Additional Items (if requested or applicable, will be charged at listed rates)			
Afterhours - Holiday 10p before-8a after /hr/empl		1	
Afterhours - Rain Event - Standby flat fee		1	
Afterhours - Weekday 10p-8a /hour/employee		1	
Afterhours - Weekday 6p-10p /hour/employee		1	
Afterhours - Weekend 10p Fri-8a Mon /hr/empl		1	
Extra per micro dilution		1	
Filtration Fee		1	

200.7 Hardness consists of:

Calcium - EPA 200.7

Marilyn Romero**Client Services Manager**

* Subject to Capacity

Payment terms are NET 30 days from invoice date. New accounts require payment prior to the release of test results until a credit application has been approved. Weck Laboratories accepts credit card payments (VISA/Master Card, American Express). Credit application/credit card approval form and Weck Laboratories' terms & conditions can be found at www.wecklabs.com under Resources. Paperless reports (PDF) are included while mailed paper reports are available at additional cost

Method Reporting Limits (MRL) and Method Detection Limits (MDL) are based upon specified sample volume or weight. When matrix interferences are apparent, sample amounts may be reduced during the preparation step and/or may be diluted prior to analysis. This is done to reduce analytical interference and instrumental contamination and will result in elevated MRL/ MDL on the test report.