CITY OF LOMITA

Cypress Water Production Facility Monthly Status Report

September 2017

TABLE OF CONTENTS

CITY OF LOMITA

October 10, 2017

Mr. Paul Williams, P.E.
District Engineer – Hollywood District
State Water Resources Control Board – Division of Drinking Water
500 North Central Avenue, Suite 500
Glendale, CA 91203

Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility (CWPF) for the period of September 1 through September 30, 2017.

Dear Mr. Williams,

In accordance with the Department of Public Health temporary approval letter dated March 15, 2013 and Permit Amendment No. 1910073, I am submitting the following report for the Cypress Water Production Facility operations for the month of September 2017.

If you should have any questions or concerns, please contact me at 310-325-7110 Ext. 124.

Sincerely,

Mark A. McAvoy, P.E.
Public Works Director/City Engineer

A. BACKGROUND

On March 15, 2013, the City of Lomita received conditional approval from the Department of Public Health (DPH) to distribute blended water from the Cypress Water Production Facility (CWPF) Well No. 5 to the City's customers.

The CWPF is an iron-manganese greensand filtration treatment system designed to remove primarily iron, manganese, and color. The CWPF was recently modified to enable aeration and blending with Metropolitan Water District (MWD) imported water to address the aesthetic secondary issues of Total Dissolved Solids (TDS), Hardness (as Calcium Carbonate), and Taste/Odor.

The CWPF came online on April 1, 2013. The first week of operations from April 1 to April 5, 2013 was utilized for conducting routine startup activities. The distribution of blended water to the City's residents began on April 5, 2013.

B. WELL PRODUCTION

The CWPF operated continuously during the month of September 2017 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 515 gpm and 274 gpm from MWD. The blend ratio for month was 65% Well water and 35% MWD water. See Table 1 below for production totals for the month of September 2017.

Table 1. Monthly Production Totals.

	Production for September 2017		
Well No. 5	62.06	ac-ft	20,219,308 (gallons)
MWD	33.19	ac-ft	10,816,000 (gallons)
Combined Total	95.25	ac-ft	31,035,308 (gallons)
Daily	3.17	ac-ft/day	1,034,510 (gallons/day)

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of September 2017. Routine and preventive maintenance was performed on various pieces of equipment as-needed. No major planned operational interruptions are anticipated for the following month.

D. SAMPLE LOCATIONS

Compliance monitoring is performed at the following sample locations: SP1, SP2, SP3, SP5, and SP6. The SP1 sample location is the raw well water sample location. The SP2 sample location is on the effluent side of the greensand filter (before ammonia injection or full chloramination). The SP3 sample location is downstream of the greensand filter after full chloramination and the static mixer before entering the reservoir. The SP5 sample location is the reservoir effluent sample location before entering the distribution system. The SP6 sample location is the MWD source sample location before blending occurs.

E. WATER QUALITY MONITORING

All water quality monitoring analyses were performed by laboratories certified by the Department of Health's Environmental Laboratory Accreditation Branch (ELAB). The CWPF has been continuously monitored, maintained and inspected, per the CWPF Operations Monitoring and Maintenance Plan. A brief discussion of the laboratory and/or monitoring results is provided below. Refer to Appendix A for laboratory results.

E1. IRON, MANGANESE AND COLOR

See Table 2 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color for raw water (SP1) was below the MCL. Iron and Manganese in the raw water (SP1) for the month were below and above the MCL, respectively. Iron and Manganese levels before entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective.

E2. FREE AND TOTAL CHLORINE RESIDUALS

Daily free chlorine residuals were monitored at SP2, SP3, SP4 and SP5. Daily total chlorine residuals were monitored at SP3, SP4 and SP5. Free chlorine and total chlorine residuals, at all respective sample points, were monitored using a combination of continuous chlorine analyzers and SCADA. See Table 3 below for a weekly summary of results.

E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE

See Table 4 below for a summary of the results for the monitoring of Total Dissolved Solids (TDS), Odor (as measured by the Threshold Odor No. - T.O.N.), Total Hardness as Calcium Carbonate, and Methane levels in water at three sample locations SP1, SP5 and SP6.

E3-1 TOTAL DISSOLVED SOLIDS (TDS)

The sampling results indicate the TDS levels of the effluent blended water to be on average 632.5 mg/L. The TDS level of the effluent water meets the City's Water Quality Objective/Goal of 500 to 750 mg/L. The sampling results indicate the TDS levels in the raw water and MWD water source to be 750 mg/L and 300 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 270 mg/L. This hardness level is slightly higher than the City's Water Quality Objective/Goal of 180 to 250 mg/L; staff continues to monitor hardness levels at the CWPF effluent (SP5) and within the water distribution system. The City has maintained a consistent blend ratio to ensure acceptable hardness levels are met.

Staff continues to use an orthophosphate/polyphosphate additive to sequester calcium hardness. Orthophosphate/Polyphosphate is a food grade National Sanitation Foundation (NSF 60) approved additive which decreases iron tuberculation, diminishes calcium scale deposits, minimizes corrosion, reduces discoloration, reduces staining and mineral build-up resulting in fewer customer complaints.

E3-3 DISSOLVED METHANE (IN WATER)

The methane levels in the CWPF effluent after aeration treatment remain negligible averaging 0.47 mg/L.

E3-4 METHANE (IN AIR)

The methane levels in the reservoir headspace are monitored daily by staff using a handheld device. These readings have consistently read non-detect to low concentrations for methane in air. Available methane hand held monitoring instruments can only detect levels of 1% Lower Explosive Limit (LEL) or greater. The handheld methane readings during the month were below the 50,000 ppm LEL. See attached methane log for the month of September 2017 in Appendix B.

E3-5 ODOR

The odor levels at the CWPF effluent averaged 2.0 units for the month.

E4. NITRIFICATION MONITORING

Weekly nitrification sampling was performed during the month of September 2017 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results. During this month, additional hydrant flushing was implemented due to elevated Nitrite reads.

F. TABLES

Table 2. Monitoring Results for SP1, SP2, and SP3 Sample Locations.

Date, week of	SP1, Well Raw Water Discharge							SP2, Combined Pressure Filter Effluent			SP3, After chloramination static mixer; reservoir entry					
	Iron, ug/L	*MCL = 3 00 ug/L	Manganese, ug/L	*MCL = 50 ug/L	Color	*MCL=15	Total Coliform	Total Coliform	HPC, MPN/100mL	MCL=500	Iron, mg/L	*MCL = 300 ug/L	Manganese, mg/L	*MCL = 50 ug/L	Color	*MCL=15
9/6/2017											ND	300	ND	50	5	15
9/13/2017	210	300	170	50	10	15	A	A	A	500	ND	300	ND	50	5	15
9/20/2017											ND	300	ND	50	5	15
9/27/2017											ND	300	ND	50	ND	15

Notes:
Monthly- Orange; Weekly- Yellow
A – Absent
ND – Non Detect
*Per the SWRCB Drinking Water "Chemicals and Contaminants in Drinking Water" Regulations

Table 3. Monitoring Results for Free and Total Chlorine at SP2, SP3, SP4 and SP5 Sample Locations.

Date, week of	SP2	SP3			SP4			SP5		
	Free Cl	Free Cl	Total Cl	Total NH_3	Free Cl	Total Cl	Total NH_3	Free Cl	Total Cl	Total NH_3
9/6/2017	4.85	0.71	4.66	0.86	0.65	4.43	0.74	0.08	3.28	0.71
9/13/2017	5.86	0.77	5.17	0.90	0.72	4.80	0.87	0.10	3.37	0.72
9/20/2017	4.35	0.66	4.93	0.88	0.59	4.57	0.85	0.09	3.41	0.82
9/27/2017	4.64	0.69	4.93	0.76	0.77	4.56	0.79	0.09	3.18	0.74

Table 4. Monitoring Requirements and Frequencies for SP1, SP5, and SP6.

Date, week of	TDS, mg/L				T.O.N.		Hardness, mg/L				Methane (Water), mg/L	
	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 500 - 750 mg/L	SP5 - Reservoir Effluent	MCL= 3	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 180 - 250 mg/L	SP1 - Raw Well Water	SP5 - Reservoir Effluent
9/6/2017			600	500-750	2	3						0.41
9/13/2017	750	300	610	500-750	2	3	370	130	270	180-250	2.6	0.45
9/20/2017			650	500-750	3	3						0.55
9/27/2017			670	500-750	1	3						0.45
Average			**632.5**	500-750	**2**	3						**0.47**

Notes:
Monthly- Orange; Weekly- Yellow
ppm – parts per million
mg/L – milligram per liter
T.O.N. - Threshold Odor Number
TDS - Total Dissolved Solids
Hardness - As total CaCO3
Methane (Water) - Methane dissolved in water

Monthly CWPF Monitoring Report – September 2017
Cypress Water Production Facility
City of Lomita; System No. 1910073

Sample Locations and Parameters	Frequency	MCL/ Goal	9/6 1stWk or Mo. Result (date)	9/13 2nd Wk	9/20 3rdWk	9/27 4th Wk	5th Wk	Comments and/or Other Info.
SP1 --- Also called Well 5 Raw Water or Site#1.								
TDS, ppm	Monthly	See SP5	750 9/13/17	**Operations Data/Information:**				*Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	370 9/13/17	**CWPF operation days**				
CH4, ppm	Monthly	See SP5	2.6 9/13/17	**On Well 5:** Daily average flow – 515 gpm; total prod. – 62.06 AF				
Iron, ppb	Monthly	See SP3	210 9/13/17	**Combined Well 5/MWD data:** Average Well 5: MWD blend Ratio – 65 % WELL: 35 % MWD; total prod.- AF				
Manganese, ppb	Monthly	See SP3	170 9/13/17					
Color, units	Monthly	See SP3	10 9/13/17	Chlorine Dosage: N/A*				
Total Coliform, P or A	Monthly	A	A 9/13/17					
SP2 --- Also called Filter Effluent or Site#3.								
Total Coliform, P or A	Monthly	A	A					*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	A	Ammonia Dosage: N/A*				
Free Cl Res, ppm	Continuous	Average: 4.92; Range: 4.35 – 5.86						
SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.								
Iron, ppb	Weekly	ND	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		
Color	Weekly	15	5	5	5	ND		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.71; Range: 0.66 – 0.77 Total Cl: Average: 4.92; Range: 4.66 – 5.17 Ammonia: Average: 0.85; Range: 0.76 – 0.90						
SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.								
Phosphate Injection		Phosphate Dosage: 0.77 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.68; Range: 0.59 – 0.77 Total Cl: Average: 4.59; Range: 4.43 – 4.80 Ammonia: Average: 0.81; Range: 0.74 – 0.87						Cl/NH3 Ratio: 5.65
SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.								
TDS, ppm	Weekly	SI Goal: 500-750ppm	600	610	650	670		
Hardness	Monthly	SI Goal: 180-250ppm		270				
CH4, ppm	Weekly	Goal: from PA	0.41	0.45	0.55	0.45		% CH4 Removal: 82.1
Odor, units	Monthly	1	2	2	3	1		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.09; Range: 0.08 – 0.10 Total Cl: Average: 3.31; Range: 3.18 – 3.41 Ammonia: Average: 0.75; Range: 0.71 – 0.82						Cl/NH3 Ratio: 4.43
Headspace of the Cypress Reservoir.								
[1]CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0% CH4 Range: 0%					
SP 6 --- MWD Source Feeding CWPF. Also called Zone 2 of the distribution system or Site #6.								
TDS, ppm	Monthly	-----		300				
Hardness	Monthly	------		130				

Notes: [1]Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 Goal-180-250 ppm.
***This Report is due to DDW by the 10th of the following month.

Other Notes/Comments: (1) See comments on the last column

APPENDIX A

LABORATORY RESULTS

Clinical Laboratory of San Bernardino, Inc.

25 September 2017 Clinical Lab No.: 17I0360

Mark Andersen
Lomita, City of
24373 Walnut Avenue
Lomita, CA 91717

Project Name: Standard Analysis
Sub Project: CWPF 1st Week September, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 09/06/17 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles
Client Services Manager

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF 1st Week September, 2017 Compliance Sampli
Project Manager: Mark Andersen

Work Order: 17I0360
Received: 09/06/17 15:39
Reported: 09/25/17

Reservoir Influent Site #3 **17I0360-01 (Water)** **Sample Date:** 09/06/17 7:20 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**4.875**		N/A	mg/L	09/06/17	09/06/17	1736129	
pH (Field)	Field	**7.48**		N/A	pH Units	09/06/17	09/06/17	1736129	
Temperature (Field)	Field	**23.8**		N/A	°C	09/06/17	09/06/17	1736129	
General Physical Analyses									
Apparent Color	SM 2120BM	**5.0**	3.0	15	Color Units	09/06/17	09/06/17	1736115	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	09/14/17	09/15/17	1737129	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	09/14/17	09/15/17	1737129	

Reservoir Effluent Site #5 **17I0360-02 (Water)** **Sample Date:** 09/06/17 7:25 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.2**		N/A	mg/L	09/06/17	09/06/17	1736129	
pH (Field)	Field	**7.77**		N/A	pH Units	09/06/17	09/06/17	1736129	
Temperature (Field)	Field	**22.6**		N/A	°C	09/06/17	09/06/17	1736129	
General Physical Analyses									
Apparent Color	SM 2120BM	**5.0**	3.0	15	Color Units	09/06/17	09/06/17	1736115	
Odor Threshold	EPA 140.1-M	**2**	1	3	TON	09/06/17	09/06/17	1736115	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**600**	5.0	1000	mg/L	09/13/17	09/15/17	1737080	

ND Analyte NOT DETECTED at or above the reporting limit

AirTECHNOLOGY
Laboratories, Inc.

September 14, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Clinical Laboratory of San Bernardino
ATTN: Stu Styles
21881 Barton Rd.
Grand Terrace, CA 92313

LABORATORY TEST RESULTS

Project Reference: 17I0360
Lab Number: I090702-01

Enclosed are results for sample(s) received 9/07/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

17I0360

I090702-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone :(626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles
[ ] glaubig@clinical-lab.com [ ] ybarra@clinical-lab.com [✓] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [✓] No
Water Trax Upload Client: _____ [ ] Yes [✓] No

Turn Around Time [ ] 10 Days [✓] 5 Days [ ] Other __ Days
Subcontract Comments:

Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 17I0360-02 **Sampled: 09/06/17 07:25 PS Code: Water** **WTX ID:**	
Methane RSK175	Report in mg/L

Containers Supplied:
40ml Amber Vial (B) 40ml Amber Vial (C)

6°C

Released By	Date / Time	Received By	Date / Time
[signature]	09/07/17 07:45	[signature]	9/7/17 906
[signature]	9/7/17 1054	[signature]	9/7/17 1054

Client:	**Clinical Laboratory**
Attn:	**Stu Styles**
Project Name:	**NA**
Project No.:	**17I0360**
Date Received:	**09/07/17**
Matrix:	**Water**
Reporting Units:	**mg/L**

RSK175

Lab No.:	I090702-01					
Client Sample I.D.:	Reservoir Effluent Site #5/17I0360-02					
Date/Time Sampled:	9/6/17 7:25					
Date/Time Analyzed:	9/7/17 15:39					
QC Batch No.:	170907GC8A2					
Analyst Initials:	AS					
Dilution Factor:	1.0					
ANALYTE	**Result mg/L**	**RL mg/L**				
Methane	0.41	0.0010				

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 9-14-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 170907GC8A2
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		9/7/17 15:13		9/8/17 9:42		9/8/17 9:55			
Analyst Initials:		AS		AS		AS			
Datafile:		07sep022		07sep035		07sep036			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	105	70-130%	101	70-130%	3.9	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 9-14-17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Clinical Laboratory of San Bernardino, Inc. 0|3 *Chain of Custody*

17I0360

Client	*City of Lomita*	System Number	Analysis Requested
Address	24373 Walnut Avenue	**1910073**	
	Lomita, CA 91717	*Destination Laboratory*	
Phone #	(310) 325-9830	[X] Clinical Laboratory	
Fax #	(310) 325-3627	*RWQCB Compliance*	
Project	*Standard Analysis*	*yes*	
Sub Project	*CWPF 1st week of September, 2017 Compliance Sampling*	ELAP #	
Comments	*For TC/EC/BACT see weekly Distro CoC*	**1088**	
Sampled by	*Patrick McCue*		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
9/6/2017	0720	Reservoir Influent Site #3	DW	1W	N/A	7.48	23.8°	4.875	X		X					
9/6/2017	0725	Reservoir Effluent Site #5	DW	1W	N/A	7.77	22.6°	3.20		X	X				X	
9/6/2017	0725	Reservoir Effluent Site #5	DW	1W	2	7.77	22.6°	3.20				X				

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO_3 (4) NH_4Cl (5) H_2SO_4 (6) Na_2SO_3 (7) Cold (8) Other:_____

Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air

Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.

Relinquished By (Sign)	*Print Name / Company*	*Date / Time*	*Print Name / Company*
Patrick McCue	City of Lomita	9/6/2017 12:00	J. Lucero / CLSB
Patrick McCue		10-6-17 15:39	J. Lucero / CLSB

Comments: J. Lucero / CLSB

Samples received: (X) On ice ( ) Intact ( ) Custody seals Temp 10.5 ( ) F (~~X~~) C

Shipped Via | | | [ ] *Fed X* [ ] *Golden State* [ ] *UPS* [ ] *Client* [ ] *Other* _____ *Page _1_ of _1_*

Clinical Laboratory of San Bernardino, Inc.

29 September 2017 Clinical Lab No.: 17I1221

Mark Andersen
Lomita, City of
24373 Walnut Avenue
Lomita, CA 91717

Project Name: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of September

Enclosed are the results of the analyses for samples received at the laboratory on 09/13/17 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles
Client Services Manager

Lomita, City of	Project: Standard Analysis	Work Order: 17I1221
24373 Walnut Avenue	Sub Project: CWPF Monthly Compliance / 2nd Week of September	Received: 09/13/17 16:20
Lomita CA, 91717	Project Manager: Mark Andersen	Reported: 09/29/17

Raw Water Site #1 **17I1221-01 (Water)** **Sample Date:** 09/13/17 9:20 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	09/13/17	09/13/17	1737133	
pH (Field)	Field	**7.4**		N/A	pH Units	09/13/17	09/13/17	1737133	
Temperature (Field)	Field	**23.1**		N/A	°C	09/13/17	09/13/17	1737133	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	09/13/17	09/14/17	1737123	
E. Coli	SM 9223	A		N/A	P/A	09/13/17	09/14/17	1737123	
Plate Count	SM9215B	**51**	1	500	CFU/ml	09/13/17	09/15/17	1737172	HT-08
General Physical Analyses									
Apparent Color	SM 2120BM	**10.0**	3.0	15	Color Units	09/13/17	09/13/17	1737124	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**370**	9.1	N/A	mg/L	09/27/17	09/27/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**750**	5.0	1000	mg/L	09/15/17	09/18/17	1737168	
Metals									
Calcium (Ca)	EPA 200.7	**96**	2.0	N/A	mg/L	09/27/17	09/27/17	1739083	
Iron (Fe)	EPA 200.7	**210**	100	300	ug/L	09/27/17	09/27/17	1739077	
Magnesium (Mg)	EPA 200.7	**31**	1.0	N/A	mg/L	09/22/17	09/25/17	1738158	
Manganese (Mn)	EPA 200.7	**170**	20	50	ug/L	09/27/17	09/27/17	1739077	

Filter Effluent (Free Chlorine) Site #2 **17I1221-02 (Water)** **Sample Date:** 09/13/17 9:27 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**5.275**		N/A	mg/L	09/13/17	09/13/17	1737133	
pH (Field)	Field	**7.41**		N/A	pH Units	09/13/17	09/13/17	1737133	
Temperature (Field)	Field	**23.2**		N/A	°C	09/13/17	09/13/17	1737133	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	09/13/17	09/14/17	1737123	
E. Coli	SM 9223	A		N/A	P/A	09/13/17	09/14/17	1737123	
Plate Count	SM9215B	ND	1	500	CFU/ml	09/13/17	09/15/17	1737172	HT-08

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of September
Project Manager: Mark Andersen

Work Order: 17I1221
Received: 09/13/17 16:20
Reported: 09/29/17

Filter Effluent (Total Chlorine) Site #3 **17I1221-03 (Water)** **Sample Date:** 09/13/17 9:17 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**4.8**		N/A	mg/L	09/13/17	09/13/17	1737133	
pH (Field)	Field	**7.51**		N/A	pH Units	09/13/17	09/13/17	1737133	
Temperature (Field)	Field	**23.2**		N/A	°C	09/13/17	09/13/17	1737133	
General Physical Analyses									
Apparent Color	SM 2120BM	**5.0**	3.0	15	Color Units	09/13/17	09/13/17	1737124	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	09/25/17	09/26/17	1739026	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	09/25/17	09/26/17	1739026	

Zone #2 Site #6 **17I1221-04 (Water)** **Sample Date:** 09/13/17 9:15 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**2.36**		N/A	mg/L	09/13/17	09/13/17	1737133	
pH (Field)	Field	**8.49**		N/A	pH Units	09/13/17	09/13/17	1737133	
Temperature (Field)	Field	**19.8**		N/A	°C	09/13/17	09/13/17	1737133	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**130**	6.6	N/A	mg/L	09/22/17	09/25/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**300**	5.0	1000	mg/L	09/15/17	09/18/17	1737168	
Metals									
Calcium (Ca)	EPA 200.7	**29**	1.0	N/A	mg/L	09/22/17	09/25/17	1738158	
Magnesium (Mg)	EPA 200.7	**14**	1.0	N/A	mg/L	09/22/17	09/25/17	1738158	

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of September
Project Manager: Mark Andersen

Work Order: 17I1221
Received: 09/13/17 16:20
Reported: 09/29/17

Reservoir Effluent Site #5 **17I1221-05 (Water)** **Sample Date:** 09/13/17 9:13 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.85**		N/A	mg/L	09/13/17	09/13/17	1737133	
pH (Field)	Field	**7.73**		N/A	pH Units	09/13/17	09/13/17	1737133	
Temperature (Field)	Field	**22.2**		N/A	°C	09/13/17	09/13/17	1737133	
General Physical Analyses									
Odor Threshold	EPA 140.1-M	**2**	1	3	TON	09/13/17	09/13/17	1737124	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**270**	33	N/A	mg/L	09/22/17	09/25/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**610**	5.0	1000	mg/L	09/15/17	09/18/17	1737168	
Metals									
Calcium (Ca)	EPA 200.7	**70**	5.0	N/A	mg/L	09/22/17	09/25/17	1738158	
Magnesium (Mg)	EPA 200.7	**23**	5.0	N/A	mg/L	09/22/17	09/25/17	1738158	

HT-08 Analysis performed outside of recommended 8 hour hold time but within required 24 hour hold time.

ND Analyte NOT DETECTED at or above the reporting limit

Air TECHNOLOGY Laboratories, Inc.

September 22, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Clinical Laboratory of San Bernardino
ATTN: Stu Styles
21881 Barton Rd.
Grand Terrace, CA 92313

LABORATORY TEST RESULTS

Project Reference: 17I1221
Lab Number: I091504-01/02

Enclosed are results for sample(s) received 9/15/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

17I1221

I091504-01/02

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone :(626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles
[ ] glaubig@clinical-lab.com [ ] ybarra@clinical-lab.com [✓] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [✓] No
Water Trax Upload Client: _____ [ ] Yes [✓] No

Turn Around Time [ ] 10 Days [✓] 5 Days [ ] Other __ Days
Subcontract Comments:

Analysis	Comments
Sample ID: Raw Water Site #1 / 17I1221-01	**Sampled: 09/13/17 09:20 PS Code: Water** **WTX ID:**
01	
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (B) 40ml Amber Vial (C)	
Sample ID: Reservoir Effluent Site #5 / 17I1221-05	**Sampled: 09/13/17 09:13 PS Code: Water** **WTX ID:**
02	
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (B) 40ml Amber Vial (C)	

5° C

Released By	Date / Time	Received By	Date / Time
[signature]	09/14/17 15:00	[signature]	9/15/17 8:20
[signature]	9/15/17 12:22	[signature]	9.15.17 12:22

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17I1221
Date Received: 09/15/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I091504-01		I091504-02					
Client Sample I.D.:	Raw Water Site #1/17I1221-01		Reservoir Effluent Site #5/17I1221-05					
Date/Time Sampled:	9/13/17 9:20		9/13/17 9:13					
Date/Time Analyzed:	9/21/17 10:28		9/21/17 10:14					
QC Batch No.:	170921GC8A1		170921GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	1.0		1.0					
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L				
Methane	2.6	0.0010	0.45	0.0010				

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 9/22/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 170921GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		9/21/17 10:01		9/21/17 8:35		9/21/17 8:48			
Analyst Initials:		AS		AS		AS			
Datafile:		21sep006		21sep001		21sep002			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	115	70-130%	104	70-130%	9.8	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 9/22/17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Clinical Laboratory of San Bernardino, Inc. 2|3 *Chain of Custody*

17I1221

Client	*City of Lomita*	System Number	Analysis Requested
Address	24373 Walnut Avenue	**1910073**	
	Lomita, CA 91717		
Phone #	(310) 325-9830	*Destination Laboratory*	
Fax #	(310) 325-3627	[X] Clinical Laboratory	
Project	*Standard Analysis*	*RWQCB Compliance*	
Sub Project	*CWPF Monthly Compliance Samples; 2nd week of Sept, 2017*	*YES*	
		ELAP #	
Comments		**1088**	
Sampled by	*DGM*		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	Temp.	pH	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Hetetrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Hardness
9/13/2017	0920	Raw Water Site #1	GW	1W	N/A	23.1°	7.40	Ø	X	X				X			
9/13/2017	0920	Raw Water Site #1	GW	1W	1, 2, 7						X	X	X			X	X
9/13/2017	0927	Filter Effluent (Free Chlorine) Site#2	DW	1W	1,7	23.2°	7.41	5.276			X	X	X				
9/13/2017	0917	Filter Effluent (Total Chlorine) Site#3	DW	1W	N/A	23.2°	7.51	4.80		X				X			
9/13/2017	0915	Zone #2 Site #6	DW	1D	N/A	19.8°	8.49	2.36	X								X
9/13/2017	0912	Reservoir Effluent Site #5	DW	1D	N/A	22.2°	7.73	3.85	X						X		X
9/13/2017	0913	Reservoir Effluent Site #5	DW	1D	2,7											X	

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO3 (4) NH4Cl (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:_____

Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air *Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.*

Relinquished By (Sign)	*Print Name / Company*	*Date / Time*	*Received By (Sign)*	*Print Name / Company*
Patrick McCue	City of Lomita, CA	9/13/2017 / 11:40		J.Lucero/asb
Patrick McCue	J.Lucero/asb	9-13-17 / 4:20		J.A CISB

Comments:

Samples received: ☒ On ice ( ) Intact ( ) Custody seals Temp 10.7 C ( ) F ☒

Shipped Via | | | [ ] *Fed X* [ ] *Golden State* [ ] *UPS* [ ] *Client* [ ] *Other*_____ *Page _1_ of _1_*

Clinical Laboratory of San Bernardino, Inc.

05 October 2017 Clinical Lab No.: 17I1710

Mark Andersen
Lomita, City of
24373 Walnut Avenue
Lomita, CA 91717

Project Name: Standard Analysis
Sub Project: CWPF 3rd Week of Sept, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 09/20/17 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles
Client Services Manager

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF 3rd Week of Sept, 2017 Compliance Sampling
Project Manager: Mark Andersen

Work Order: 17I1710
Received: 09/20/17 15:25
Reported: 10/05/17

Reservoir Influent Site #3 **17I1710-01 (Water)** **Sample Date:** 09/20/17 9:20 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**5.04**		N/A	mg/L	09/20/17	09/20/17	1738122	
pH (Field)	Field	**7.48**		N/A	pH Units	09/20/17	09/20/17	1738122	
Temperature (Field)	Field	**22.7**		N/A	°C	09/20/17	09/20/17	1738122	
General Physical Analyses									
Apparent Color	SM 2120BM	**5.0**	3.0	15	Color Units	09/20/17	09/20/17	1738124	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/02/17	10/02/17	1740016	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/02/17	10/02/17	1740016	

Reservoir Effluent Site #5 **17I1710-02 (Water)** **Sample Date:** 09/20/17 9:25 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.55**		N/A	mg/L	09/20/17	09/20/17	1738122	
pH (Field)	Field	**7.7**		N/A	pH Units	09/20/17	09/20/17	1738122	
Temperature (Field)	Field	**21.9**		N/A	°C	09/20/17	09/20/17	1738122	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	09/20/17	09/20/17	1738124	
Odor Threshold	EPA 140.1-M	**3**	1	3	TON	09/20/17	09/20/17	1738124	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**650**	5.0	1000	mg/L	09/27/17	09/29/17	1739104	

ND Analyte NOT DETECTED at or above the reporting limit

Air TECHNOLOGY Laboratories, Inc.

September 28, 2017

nelac
LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Clinical Laboratory of San Bernardino
ATTN: Stu Styles
21881 Barton Rd.
Grand Terrace, CA 92313

LABORATORY TEST RESULTS

Project Reference: 17I1710
Lab Number: I092101-01

Enclosed are results for sample(s) received 9/21/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

17I1710

I092101-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone :(626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles
[ ] glaubig@clinical-lab.com [ ] ybarra@clinical-lab.com [✓] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [✓] No
Water Trax Upload Client: _____ [ ] Yes [✓] No

Turn Around Time [ ] 10 Days [✓] 5 Days [ ] Other __ Days
Subcontract Comments:

Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 17I1710-02	**Sampled: 09/20/17 09:25 PS Code: Water** **WTX ID:**
Methane RSK175	Report in mg/L

Containers Supplied:
40ml Amber Vial (B) 40ml Amber Vial (C)

6°C

Released By	Date / Time	Received By	Date / Time
09/21/17 07:30		9/21/17	905
Released By	Date / Time	Received By	Date / Time
9/22/17 11:22		9/21/17	9:00 (JK) 11:22

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17I1710
Date Received: 09/21/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	**I092101-01**							
Client Sample I.D.:	**Reservoir Effluent Site #5/17I1710-02**							
Date/Time Sampled:	**9/20/17 9:25**							
Date/Time Analyzed:	**9/26/17 15:22**							
QC Batch No.:	**170926GC8A1**							
Analyst Initials:	**AS**							
Dilution Factor:	**1.0**							
ANALYTE	**Result mg/L**	**RL mg/L**						
Methane	0.55	0.0010						

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 9-28-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 170926GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		9/26/17 14:00		9/26/17 14:13		9/26/17 14:27			
Analyst Initials:		AS		AS		AS			
Datafile:		25sep084		25sep085		25sep086			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	101	70-130%	95	70-130%	6.9	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ **Date:** 9-28-17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Clinical Laboratory of San Bernardino, Inc.

913

Chain of Custody

17I1710

Client	*City of Lomita*	System Number	Analysis Requested
Address	24373 Walnut Avenue	**1910073**	
	Lomita, CA 91717	*Destination Laboratory*	
Phone #	(310) 325-9830	[X] Clinical Laboratory	
Fax #	(310) 325-3627	*RWQCB Compliance*	
Project	*Standard Analysis*	*yes*	
Sub Project	*CWPF 1st week of September, 2017 Compliance Sampling*	ELAP #	
Comments	*For TC/EC/BACT see weekly Distro CoC*	**1088**	
Sampled by	*Patrick McCue*		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
9/20/2017	0920	Reservoir Influent Site #3	DW	1W	N/A	7.48	22.7°	5.04	X		X					
9/20/2017	0925	Reservoir Effluent Site #5	DW	1W	N/A	7.70	21.9°	3.55		X	X				X	
9/20/2017	0925	Reservoir Effluent Site #5	DW	1W	2							X				

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO3 (4) NH4Cl (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:_____

Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air

Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.

Relinquished By (Sign)	*Print Name / Company*	*Date / Time*		*Print Name / Company*
Patrick McCue	City of Lomita	9/20/2017	12:45	J. Lucero / CSB
Patrick McCue	J. Lucero/CSO	9.20.17	3:25	J. Lucero / CSB

Comments:

Samples received: (X) On ice ( ) Intact ( ) Custody seals Temp 10.5 ( ) F (X) C

Shipped Via | | | | *Fed X* | | *Golden State* | | *UPS* | | *Client* | | *Other* _____ *Page _1_ of _1_*

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.

05 October 2017 Clinical Lab No.: 17I2233

Mark Andersen
Lomita, City of
24373 Walnut Avenue
Lomita, CA 91717

Project Name: Standard Analysis
Sub Project: CWPF 4th Week of Sept, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 09/27/17 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Lomita, City of	Project: Standard Analysis	Work Order: 17I2233
24373 Walnut Avenue	Sub Project: CWPF 4th Week of Sept, 2017 Compliance Sampling	Received: 09/27/17 15:15
Lomita CA, 91717	Project Manager: Mark Andersen	Reported: 10/05/17

Reservoir Influent Site #3 **17I2233-01 (Water)** **Sample Date:** 09/27/17 9:15 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Free (Field)	Field	**0.37**		N/A	mg/L	09/27/17	09/27/17	1739116	
Cl Res Total (Field)	Field	**6.07**		N/A	mg/L	09/27/17	09/27/17	1739116	
pH (Field)	Field	**7.53**		N/A	pH Units	09/27/17	09/27/17	1739116	
Temperature (Field)	Field	**21.4**		N/A	°C	09/27/17	09/27/17	1739116	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	09/27/17	09/27/17	1739130	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/02/17	10/02/17	1740029	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/02/17	10/02/17	1740029	

Reservoir Effluent Site #5 **17I2233-02 (Water)** **Sample Date:** 09/27/17 9:20 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Free (Field)	Field	**0.1**		N/A	mg/L	09/27/17	09/27/17	1739116	
Cl Res Total (Field)	Field	**3.36**		N/A	mg/L	09/27/17	09/27/17	1739116	
pH (Field)	Field	**7.79**		N/A	pH Units	09/27/17	09/27/17	1739116	
Temperature (Field)	Field	**20.9**		N/A	°C	09/27/17	09/27/17	1739116	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	09/27/17	09/27/17	1739130	
Odor Threshold	EPA 140.1-M	**1**	1	3	TON	09/27/17	09/27/17	1739130	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**670**	5.0	1000	mg/L	10/02/17	10/03/17	1740032	

ND Analyte NOT DETECTED at or above the reporting limit

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

Air TECHNOLOGY
Laboratories, Inc.

October 5, 2017

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Clinical Laboratory of San Bernardino
ATTN: Stu Styles
21881 Barton Rd.
Grand Terrace, CA 92313

LABORATORY TEST RESULTS

Project Reference: 17I2233
Lab Number: I092807-01

Enclosed are results for sample(s) received 9/28/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

1092807

IO92807-01

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

17I2233

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone :(626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles
[ ] glaubig@clinical-lab.com [ ] ybarra@clinical-lab.com [√] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [√] No
Water Trax Upload Client: _____ [ ] Yes [√] No

Turn Around Time [ ] 10 Days [√] 5 Days [ ] Other __ Days
Subcontract Comments:

Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 17I2233-02	**Sampled: 09/27/17 09:20 PS Code: Water** **WTX ID:**
Methane RSK175	Report in mg/L

Containers Supplied:
40ml Amber Vial (B) 40ml Amber Vial (C)

5° C
9.28.17

Released By	Date / Time	Received By	Date / Time
[signature]	09/28/17 08:10	[signature]	9/28/17 8:21
[signature]	9/28/17 1:12	[signature]	9-28-17 13:12

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17I2233
Date Received: 09/28/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I092807-01							
Client Sample I.D.:	Reservoir Effluent Site #5/17I2233-02							
Date/Time Sampled:	9/27/17 9:20							
Date/Time Analyzed:	10/5/17 9:47							
QC Batch No.:	171005GC8A1							
Analyst Initials:	AS							
Dilution Factor:	1.0							
ANALYTE	Result mg/L	RL mg/L						
Methane	0.45	0.0010						

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 10-5-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 171005GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		10/5/17 9:34		10/5/17 9:08		10/5/17 9:21			
Analyst Initials:		AS		AS		AS			
Datafile:		05oct004		05oct002		05oct003			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	108	70-130%	112	70-130%	3.8	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 10-5-17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Clinical Laboratory of San Bernardino, Inc.

#13

Chain of Custody

17I2233

Client	*City of Lomita*	System Number	Analysis Requested
Address	24373 Walnut Avenue Lomita, CA 91717	**1910073**	
Phone #	(310) 325-9830	*Destination Laboratory*	
Fax #	(310) 325-3627	[X] Clinical Laboratory	
Project	*Standard Analysis*	*RWQCB Compliance*	
Sub Project	*CWPF 4th week of September, 2017* *Compliance Sampling*	*yes* ELAP #	
Comments	*For TC/EC/BACT see weekly Distro CoC*	**1088**	
Sampled by	*Patrick McCue*		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
9/27/2017	0915	Reservoir Influent Site #3	DW	1W	N/A	7.53	21.4°	0.07	X		X					Free chlorine = 0.37 ppm
9/27/2017	0920	Reservoir Effluent Site #5	DW	1W	N/A	7.79	20.9°	3.36		X	X				X	Free Chlorine = 0.10 ppm
9/27/2017	0920	Reservoir Effluent Site #5	DW	1W	2							X				

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO3 (4) NH4Cl (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:_____

Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air

Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.

Relinquished By (Sign)	*Print Name / Company*	*Date / Time*	*Print Name / Company*
Patrick McCue	City of Lomita	9/27/2017 12:00	J. Lucero/CLSB
Patrick McCue	J. Lucero/CLSB	9.27.17 3:15	J. Lucero/CLSB

Comments:

Samples received: (X) On ice ( ) Intact ( ) Custody seals Temp 9.9 ( ) F (X) C

Shipped Via [ ] *Fed X* [ ] *Golden State* [ ] *UPS* [ ] *Client* [ ] *Other*_____ *Page _1_ of _1_*

"Your Water and Wastewater Analysis Solution"

APPENDIX B

METHANE MONITORING LOG

CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

CYPRESS WATER PRODUCTION FACILITY
HANDHELD METHANE LOG READINGS

SEPTEMBER 2017				
DATE	**DAY**	**METHANE HANDHELD**		**COMMENTS**
9/1/2017	Fri	CH_4- 0%	Oxy- 20.5%	
9/2/2017	Sat	CH_4- 0%	Oxy- 20.3%	
9/3/2017	Sun	CH_4- 0%	Oxy- 20.3%	
9/4/2017	Mon	CH_4- 0%	Oxy- 20.9%	
9/5/2017	Tue	CH_4- 0%	Oxy- 20.9%	
9/6/2017	Wed	CH_4- 0%	Oxy- 20.9%	
9/7/2017	Thu	CH_4- 0%	Oxy- 20.9%	
9/8/2017	Fri	CH_4- 0%	Oxy- 20.9%	
9/9/2017	Sat	CH_4- 0%	Oxy- 21.1%	
9/10/2017	Sun	CH_4- 0%	Oxy- 20.9%	
9/11/2017	Mon	CH_4- 0%	Oxy- 21.2%	
9/12/2017	Tue	CH_4- 0%	Oxy- 20.4%	
9/13/2017	Wed	CH_4- 0%	Oxy- 19.5%	
9/14/2017	Thu	CH_4- 0%	Oxy- 19.9%	
9/15/2017	Fri	CH_4- 0%	Oxy- 19.5%	
9/16/2017	Sat	CH_4- 0%	Oxy- 20.3%	
9/17/2017	Sun	CH_4- 0%	Oxy- 19.6%	
9/18/2017	Mon	CH_4- 0%	Oxy- 19.2%	
9/19/2017	Tue	CH_4- 0%	Oxy- 19.5%	
9/20/2017	Wed	CH_4- 0%	Oxy- 19.5%	
9/21/2017	Thu	CH_4- 0%	Oxy- 19.7%	
9/22/2017	Fri	CH_4- 0%	Oxy- 21.5%	
9/23/2017	Sat	CH_4- 0%	Oxy- 20.9%	
9/24/2017	Sun	CH_4- 0%	Oxy- 19.6%	
9/25/2017	Mon	CH_4- 0%	Oxy- 19.5%	
9/26/2017	Tue	CH_4- 0%	Oxy- 20.4%	
9/27/2017	Wed	CH_4- 0%	Oxy- 19.4%	
9/28/2017	Thu	CH_4- 0%	Oxy- 20.3%	
9/29/2017	Fri	CH_4- 0%	Oxy- 21.5%	
9/30/2017	Sat	CH_4- 0%	Oxy- 19.7%	

ND- Non Detect
CH_4- Methane
Oxy- Oxygen
Day Off/Holiday- Red

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

[1] MONTHLY NITRIFICATION MONITORING SUMMARY REPORT

CITY OF LOMITA, System No. 1910073 --- Month, Year: **September 2017**

#	Code	Sample ID	Location	Sample Date	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite[3]	Nitrate	Coliform[2]	HPC	Zone	Comments
Units/Others →				MM/DD/YYYY	°C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml		
1	D	S13-003	1948 W 252nd St	9/6/2017	23.6	7.96	2.00	0.11	0.46	0.06	0.029	ND	A	9	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	9/6/2017	23.3	8.07	1.84	0.09	0.53	0.12	0.025	ND	A	5	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	9/6/2017	23.7	8.03	2.50	0.15	0.62	0.03	0.017	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	9/6/2017	22.7	8.65	1.99	0.12	0.37	0.08	0.013	0.54	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	9/6/2017	22.6	7.80	3.20	0.09	0.64	0.00	0.012	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	9/6/2017	22.7	8.99	2.40	0.07	0.46	0.00	0.011	0.57	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	9/6/2017	21.7	8.79	2.50	0.07	0.47	0.00	0.008	0.60	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	9/6/2017	22.1	8.86	2.50	0.08	0.44	0.01	0.008	0.60	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	9/13/2017	23.0	8.10	2.17	0.18	0.59	0.12	0.039	ND	A	3	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	9/13/2017	23.1	8.06	1.99	0.07	0.62	0.14	0.041	ND	A	5	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	9/13/2017	24.4	7.95	3.10	0.07	0.62	0.12	0.030	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	9/13/2017	23.2	8.58	2.00	0.04	0.43	0.07	0.012	0.62	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	9/13/2017	22.2	7.73	3.85	0.05	0.84	0.00	0.014	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	9/13/2017	23.0	8.67	2.60	0.24	0.52	0.00	0.012	0.63	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	9/13/2017	21.4	8.84	2.60	0.05	0.49	0.04	0.011	0.60	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	9/13/2017	22.3	8.64	2.60	0.19	0.41	0.02	0.010	0.61	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	9/20/2017	20.6	7.97	1.80	0.14	0.49	0.15	0.039	ND	A	3	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	9/20/2017	21.9	8.00	1.38	0.14	0.43	0.16	0.099	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	9/20/2017	22.0	8.17	2.70	0.16	0.60	0.07	0.045	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	9/20/2017	22.1	8.76	1.70	0.18	0.45	0.10	0.017	0.54	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	9/20/2017	22.1	8.02	3.50	0.06	0.70	0.00	0.010	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	9/20/2017	20.7	8.65	2.60	0.06	0.54	0.00	0.009	0.67	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	9/20/2017	20.4	8.76	2.50	0.18	0.55	0.00	0.009	0.67	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	9/20/2017	20.5	8.85	2.50	0.16	0.51	0.00	0.011	0.65	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	9/27/2017	21.2	7.97	1.25	0.07	0.39	0.15	0.112	ND	A	9	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	9/27/2017	20.5	7.94	0.89	0.04	0.29	0.17	0.175	ND	A	52	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	9/27/2017	20.9	8.11	1.77	0.07	0.54	0.18	0.051	ND	A	3	1	Well/MWD Blend
4	D	A	2052 Dawn St	9/27/2017	19.5	8.65	1.84	0.07	0.39	0.15	0.021	0.51	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	9/27/2017	20.9	7.79	3.36	0.13	0.74	0.00	0.007	ND	A	2	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	9/27/2017	21.5	8.72	2.50	0.07	0.50	0.02	0.008	0.64	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	9/27/2017	20.7	8.89	2.50	0.05	0.44	0.00	0.007	0.64	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	9/27/2017	20.3	8.83	2.40	0.08	0.46	0.01	0.008	0.64	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St												1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave												1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave												1	Well/MWD Blend
4	D	A	2052 Dawn St												1	Well/MWD Blend
5	D		Reservoir												1	Well/MWD Blend
6	D	S13-001	1912 W 259th St												2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave												3	MWD Only
8	D	S13-005	2500 PCH												2	MWD Only

[1]Notes: Report Due to DDW by the 10th of the following month. This Report can be used for the routine weekly monitoring (one Report per month) as well as for daily monitoring when there is actual and potential for nitrification (about four or five Reports per month, in this case).

[2]Coliform results are part of weekly Bacti sampling results.

[3]The City is monitoring trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Due to elevated reads additional hydrant flushing has been implemented.