

CITY OF LOMITA



# Cypress Water Production Facility Monthly Status Report

---

June 2018



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**CITY COUNCIL**

MICHAEL G. SAVIDAN  
HENRY SANCHEZ, JR  
JAMES GAZELEY  
BEN TRAINA  
MARK WARONEK



**ADMINISTRATION**

RYAN SMOOT  
CITY MANAGER

July 10, 2018

Mr. Dmitry Ginzburg, 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 June 1 through June 30, 2018.

Dear Mr. Ginzburg,

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 June 2018.

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

Sincerely,

Mark Andersen  
Field Operations Manager



## 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 June 2018 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 438 gpm and 562 gpm from MWD. The blend ratio for month was 44% Well water and 56% MWD water. See Table 1 below for production totals for the month of June 2018.

Table 1. Monthly Production Totals.

Production for June 2018			
Well No. 5	56.97 ac-ft	18,563,086 (gallons)	
MWD	73.10 ac-ft	23,820,000 (gallons)	
Combined Total	130.07 ac-ft	42,383,086 (gallons)	
Daily	4.34 ac-ft/day	1,412,770 (gallons/day)	

## C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of June 2018. 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 level. Iron for raw water was below the MCL level and Manganese was above the MCL level for the month. 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 650 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 890 mg/L and 460 mg/L, respectively.

#### **E3-2 HARDNESS**

The sampling results for the month indicate the hardness levels of the blended water to be on average 300 mg/L. This hardness level is above 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 0.24 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 June 2018 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 June 2018 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results.



## 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 = 300 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
6/6/2018											ND	300	ND	50	5	15
6/13/2018	200	300	170	50	10	15	A	A	ND	500	ND	300	ND	50	7.5	15
6/20/2018											ND	300	ND	50	5	15
6/27/2018											ND	300	ND	50	5	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 <sub>3</sub>	Free Cl	Total Cl	Total NH <sub>3</sub>	Free Cl	Total Cl	Total NH <sub>3</sub>
6/6/2018	6.94	1.11	6.98	0.96	0.55	4.79	0.88	0.12	3.59	0.65
6/13/2018	7.01	1.82	6.93	1.04	0.50	4.59	0.76	0.22	3.64	0.71
6/20/2018	5.99	0.99	7.30	0.93	0.51	4.85	0.80	0.07	3.52	0.69
6/27/2018	6.49	0.98	8.12	0.84	0.57	4.69	0.69	0.12	3.54	0.68



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
6/6/2018			710	500-750	2	3						0.34
6/13/2018	890	460	620	500-750	2	3	370	170	300	180-250	2	0.22
6/20/2018			670	500-750	2	3						0.16
6/27/2018			600	500-750	2	3						0.23
<b>Average</b>			<b>650</b>	500-750	<b>2</b>	3						<b>0.24</b>

**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 CaCO<sub>3</sub>

Methane (Water) - Methane dissolved in water



# Monthly CWPFF Monitoring Report – June 2018

## Cypress Water Production Facility City of Lomita; System No. 1910073

Sample Locations and Parameters	Frequency	MCL/ Goal	6/6 1stWk  or Mo. Result (date)	6/13 2 <sup>nd</sup> Wk	6/23 3rdWk	6/30 4 <sup>th</sup> Wk		Comments and/or Other Info.
SP1 --- Also called Well 5 Raw Water or Site#1.								
TDS, ppm	Monthly	See SP5	890 6/13	<b>Operations Data/Information:</b>  <b>CWPFF operation days</b>  <b>On Well 5:</b> Daily average flow – 438 gpm; total prod. – 56.97 AF <b>Combined Well 5/MWD data:</b> Average Well 5: MWD blend Ratio – 44% WELL: 56% MWD; total prod.- 130.07 AF  Chlorine Dosage: N/A*				*Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	370 6/13					
CH4, ppm	Monthly	See SP5	2.0 6/13					
Iron, ppb	Monthly	See SP3	200 6/13					
Manganese, ppb	Monthly	See SP3	170 6/13					
Color, units	Monthly	See SP3	10 6/13					
Total Coliform, P or A	Monthly	A	A 6/13					
SP2 --- Also called Filter Effluent or Site#3.								
Total Coliform, P or A	Monthly	A	A	Ammonia Dosage: N/A*				*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	ND					
Free Cl Res, ppm	Continuous	Average: 6.60 ; Range: 5.99 – 7.01						
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	7.5	5	5		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 1.23; Range: 0.98 – 1.82 Total Cl: Average: 7.33; Range: 6.93 – 8.12 Ammonia: Average: 0.94; Range: 0.84 – 1.04						
SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.								
Phosphate Injection		Phosphate Dosage: 0.52 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.54; Range: 0.50 – 0.60 Total Cl: Average: 4.70; Range: 4.55 – 4.85 Ammonia: Average: 0.79; Range: 0.69 – 0.94						Cl/NH3 Ratio: 5.91
SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.								
TDS, ppm	Weekly	SI Goal: 500-750ppm	710	620	670	600		% CH4 Removal: 88.1%
Hardness	Monthly	SI Goal: 180-250ppm		300				
CH4, ppm	Weekly	Goal: from PA	0.34	0.22	0.16	0.23		
Odor, units	Monthly	1	2	2	2	2		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.14; Range: 0.07 – 0.22 Total Cl: Average: 3.57; Range: 3.50 - 3.64 Ammonia: Average: 0.69; Range: 0.65 – 0.72						Cl/NH3 Ratio: 5.17
Headspace of the Cypress Reservoir.								
<sup>1</sup> CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.93% CH4 Range: 0% - 4%					
SP 6 --- MWD Source Feeding CWPFF. Also called Zone 2 of the distribution system or Site #6.								
TDS, ppm	Monthly	-----		460				
Hardness	Monthly	-----		170				
Notes: <sup>1</sup> Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 Goal-180-250 ppm.								
***This Report is due to DDW by the 10 <sup>th</sup> of the following month.								

Notes: <sup>1</sup>Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 Goal-180-250 ppm.

\*\*\*This Report is due to DDW by the 10<sup>th</sup> of the following month.

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



## **APPENDIX A**

### LABORATORY RESULTS



# *Clinical Laboratory of San Bernardino, Inc.*



19 June 2018

Clinical Lab No.: 18F0506

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

Project Name: Standard Analysis  
Sub Project: CWPF 1st Week of June, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 06/06/18 . 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,

A handwritten signature in black ink, appearing to read "Stu Styles", with a stylized flourish at the end.

Stu Styles  
Client Services Manager



# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf 1st Week of June, 2018 Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 18F0506  
Received: 06/06/18 14:45  
Reported: 06/19/18

**Reservoir Influent Site #3** **18F0506-01 (Water)** **Sample Date:** 06/06/18 6:20 **Sampler:** Oscar Cambero

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>8.5</b>		N/A	mg/L	06/06/18	06/06/18	1823108	
<b>pH (Field)</b>	Field	<b>7.72</b>		N/A	pH Units	06/06/18	06/06/18	1823108	
<b>Temperature (Field)</b>	Field	<b>22.1</b>		N/A	°C	06/06/18	06/06/18	1823108	

## General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	<b>5.0</b>	3.0	15	Color Units	06/06/18	06/06/18	1823119	
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## Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/11/18	06/11/18	1823181	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/11/18	06/11/18	1823181	

**Reservoir Effluent Site #5** **18F0506-02 (Water)** **Sample Date:** 06/06/18 6:15 **Sampler:** Oscar Cambero

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>3.9</b>		N/A	mg/L	06/06/18	06/06/18	1823108	
<b>pH (Field)</b>	Field	<b>8.07</b>		N/A	pH Units	06/06/18	06/06/18	1823108	
<b>Temperature (Field)</b>	Field	<b>20.9</b>		N/A	°C	06/06/18	06/06/18	1823108	

## General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	ND	3.0	15	Color Units	06/06/18	06/06/18	1823119	
<b>Odor Threshold</b>	EPA 140.1-M	<b>2</b>	1	3	TON	06/06/18	06/06/18	1823119	

## General Chemical Analyses

<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>710</b>	5.0	1000	mg/L	06/13/18	06/14/18	1824085	
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ND Analyte NOT DETECTED at or above the reporting limit





June 15, 2018

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



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

### LABORATORY TEST RESULTS

Project Reference: 18F0506  
Lab Number: J060801-01

Enclosed are results for sample(s) received 6/08/18 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 TNI 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

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**  
**18F0506**

J060801-01

**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 [x] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [x] No

Water Trax Upload Client: [ ] Yes [x] No

Turn Around Time [ ] 10 Days [x] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis****Comments**

Sample ID: Reservoir Effluent Site #5 / 18F0506-02

Sampled: 06/06/18 06:15 PS Code:  
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

2°C  
6-8-18

Released By	06/07/18 15:30	Received By	6/8/18 815
Wiley Chaparro	6/8/18 922	Wiley Chaparro	6-8-18 0922



**Client:** Clinical Laboratory  
**Attn:** Stu Styles  
**Project Name:** NA  
**Project No.:** 18F0506  
**Date Received:** 06/08/18  
**Matrix:** Water  
**Reporting Units:** mg/L

RSK175

Lab No.:	J060801-01						
Client Sample I.D.:	Reservoir Effluent Site #5/18F0506-02						
Date/Time Sampled:	6/6/18 6:15						
Date/Time Analyzed:	6/14/18 10:26						
QC Batch No.:	180613GC8A2						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result mg/L	RL mg/L					
Methane	0.34	0.0010					

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

Reviewed/Approved By: \_\_\_\_\_

  
 Mark Johnson  
 Operations Manager

Date

6/15/18

The cover letter is an integral part of this analytical report





QC Batch No.: 180613GC8A2  
Matrix: Water  
Units: mg/L

## QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		6/13/18 15:30		6/13/18 15:57		6/13/18 16:10			
Analyst Initials:		AS		AS		AS			
Datafile:		13jun042		13jun044		13jun045			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	110	70-130%	105	70-130%	4.3	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: \_\_\_\_\_

  
Mark J. Johnson  
Operations Manager

Date: \_\_\_\_\_

6/15/18

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





18 FOS-06

*"Your Water and Wastewater Analysis Solution"*



# *Clinical Laboratory of San Bernardino, Inc.*



26 June 2018

Clinical Lab No.: 18F1188

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

Project Name: Standard Analysis  
Sub Project: CWPF Monthly Compliance Samples, 2nd Wk of June

Enclosed are the results of the analyses for samples received at the laboratory on 06/13/18 . 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,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles

Client Services Manager



# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf Monthly Compliance Samples, 2nd Wk of Jun  
Project Manager: Mark Andersen

Work Order: 18F1188  
Received: 06/13/18 15:00  
Reported: 06/26/18

## Raw Water Site #1

18F1188-01 (Water)

Sample Date: 06/13/18 8:22 Sampler: Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	0		N/A	mg/L	06/13/18	06/13/18	1824147	
pH (Field)	Field	7.68		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	22.5		N/A	°C	06/13/18	06/13/18	1824147	

### Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
E. Coli	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
Plate Count	SM9215B	42	1	500	CFU/ml	06/13/18	06/15/18	1824184	HT-08

### General Physical Analyses

Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	06/13/18	06/13/18	1824178	
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### General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	370	6.6	N/A	mg/L	06/20/18	06/20/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	890	5.0	1000	mg/L	06/20/18	06/21/18	1825074	

### Metals

Calcium (Ca)	EPA 200.7	97	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
Iron (Fe)	EPA 200.7	200	100	300	ug/L	06/18/18	06/18/18	1825016	
Magnesium (Mg)	EPA 200.7	32	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
Manganese (Mn)	EPA 200.7	170	20	50	ug/L	06/18/18	06/18/18	1825016	

## Filter Effluent (Free Chlorine) Site #2

18F1188-02 (Water)

Sample Date: 06/13/18 8:20 Sampler: Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	7.6		N/A	mg/L	06/13/18	06/13/18	1824147	
pH (Field)	Field	7.75		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	22.5		N/A	°C	06/13/18	06/13/18	1824147	

### Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
E. Coli	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
Plate Count	SM9215B	ND	1	500	CFU/ml	06/13/18	06/15/18	1824184	HT-08



# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf Monthly Compliance Samples, 2nd Wk of Jun  
Project Manager: Mark Andersen

Work Order: 18F1188  
Received: 06/13/18 15:00  
Reported: 06/26/18

## Filter Effluent (Total Chlorine) Site #3

**18F1188-03 (Water)**

**Sample Date:** 06/13/18 8:30 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>7.1</b>		N/A	mg/L	06/13/18	06/13/18	1824147	
<b>pH (Field)</b>	Field	<b>7.75</b>		N/A	pH Units	06/13/18	06/13/18	1824147	
<b>Temperature (Field)</b>	Field	<b>22.5</b>		N/A	°C	06/13/18	06/13/18	1824147	

### General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	<b>7.5</b>	3.0	15	Color Units	06/13/18	06/13/18	1824178	
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### Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/18/18	06/18/18	1825016	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/18/18	06/18/18	1825016	

## Zone #2 Site #6

**18F1188-04 (Water)**

**Sample Date:** 06/13/18 8:25 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>2.3</b>		N/A	mg/L	06/13/18	06/13/18	1824147	
<b>pH (Field)</b>	Field	<b>8.55</b>		N/A	pH Units	06/13/18	06/13/18	1824147	
<b>Temperature (Field)</b>	Field	<b>20.6</b>		N/A	°C	06/13/18	06/13/18	1824147	

### General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>170</b>	6.6	N/A	mg/L	06/20/18	06/20/18	[CALC]	
<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>460</b>	5.0	1000	mg/L	06/20/18	06/21/18	1825074	

### Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>42</b>	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>17</b>	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	



# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf Monthly Compliance Samples, 2nd Wk of Jun  
Project Manager: Mark Andersen

Work Order: 18F1188  
Received: 06/13/18 15:00  
Reported: 06/26/18

**Reservoir Effluent Site #5**      **18F1188-05 (Water)**      **Sample Date:** 06/13/18 8:45      **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>3.5</b>		N/A	mg/L	06/13/18	06/13/18	1824147	
<b>pH (Field)</b>	Field	<b>8.06</b>		N/A	pH Units	06/13/18	06/13/18	1824147	
<b>Temperature (Field)</b>	Field	<b>21.9</b>		N/A	°C	06/13/18	06/13/18	1824147	

## Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
E. Coli	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
Plate Count	SM9215B	ND	1	500	CFU/ml	06/13/18	06/15/18	1824184	HT-08

## General Physical Analyses

<b>Odor Threshold</b>	EPA 140.1-M	<b>2</b>	1	3	TON	06/13/18	06/13/18	1824178	
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## General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>300</b>	6.6	N/A	mg/L	06/20/18	06/20/18	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	ND	0.40	10	mg/L	06/14/18	06/14/18	1824119	
<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>620</b>	5.0	1000	mg/L	06/20/18	06/21/18	1825074	

## Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>75</b>	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>26</b>	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	

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





June 22, 2018

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



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

### LABORATORY TEST RESULTS

Project Reference: 18F1188  
Lab Number: J061506-01

Enclosed are results for sample(s) received 6/15/18 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 TNI 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson", followed by a small checkmark.

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**  
**18F1188**

J061506-01/02

**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 [X] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [X] No

Water Trax Upload Client: [ ] Yes [X] No

Turn Around Time [ ] 10 Days [X] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis****Comments****Sample ID: Raw Water Site #1 / 18F1188-01****Sampled: 06/13/18 08:22 PS Code:**  
**Water****WTX ID:**81  
Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

**Sample ID: Reservoir Effluent Site #5 / 18F1188-05****Sampled: 06/13/18 08:45 PS Code:**  
**Water****WTX ID:**62  
Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

60C

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time



**Client:** Clinical Laboratory  
**Attn:** Stu Styles  
**Project Name:** NA  
**Project No.:** 18F1188  
**Date Received:** 06/15/18  
**Matrix:** Water  
**Reporting Units:** mg/L

RSK175

Lab No.:	J061506-01	J061506-02		
Client Sample I.D.:	Raw Water Site #1 / 18F1188-01	Reservoir Effluent Site #5 / 18F1188-05		
Date/Time Sampled:	6/13/18 8:22	6/13/18 8:45		
Date/Time Analyzed:	6/18/18 16:27	6/18/18 16:14		
QC Batch No.:	180618GC8A1	180618GC8A1		
Analyst Initials:	AS	AS		
Dilution Factor:	1.0	1.0		
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L
Methane	2.0	0.0010	0.22	0.0010

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: \_\_\_\_\_

*Mark Johnson*  
 Mark Johnson

Operations Manager

Date

*6/22/18*

The cover letter is an integral part of this analytical report





## LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 180613GC8A1

Matrix: Air

Reporting Units: mg/L

RSK175  
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD						
Date/Time Analyzed:	6/13/18 14:12			6/18/18 14:50		6/18/18 15:03						
Analyst Initials:	AS			AS		AS						
Dilution Factor:	1.0			1.0		1.0						
ANALYTE	Result mg/L	RL mg/L		SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010		0.65	0.668	102	0.691	106	3.5	70	130	30.0

ND= Not Detected (below RL)

RL= Reporting Limit

Reviewed/Approved By: \_\_\_\_\_

Mark Johnson  
Operations Manager

Date

6/22/18

The cover letter is an integral part of this analytical report





3/3

18F1188

Client		City of Lomita		System Number		Analysis Requested												
Address		24373 Walnut Avenue Lomita, CA 91717		1910073														
Phone #		(310)903-2243		Destination Laboratory														
Fax #				[X] Clinical Laboratory														
Project		Standard Analysis		RWQCB Compliance														
Sub Project		CWPF Monthly Compliance Samples; 2nd week of June, 2018		YES														
Comments				ELAP #														
Sampled by		Patrick McCue		1088														
Date	Time	Sample Identification	Matrix	Type	Preserv	Temp.	pH	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Heterotrophic Plate Count	Nitrate	Color	Odor	Methane (WATER) (RSK175)	Hardness
6/13/2018	0815	Raw Water Site #1	GW	IW	N/A	22.5	7.68	0	X	X	X				X			
6/13/2018	0822	Raw Water Site #1	GW	IW	1, 2, 7						X	X	X				X	
6/13/2018	0820	Filter Effluent (Free Chlorine) Site#2	DW	IW	1, 7	22.5	7.75	7.6			X	X	X					
6/13/2018	0830	Filter Effluent (Total Chlorine) Site#3	DW	IW	N/A	22.5	7.75	7.1		X					X			
6/13/2018	0825	Zone #2 Site #6	DW	ID	N/A	20.6	8.55	2.3	X								X	
6/13/2018	0845	Reservoir Effluent Site #5	DW	ID	1, 7	21.9	8.06	3.5			X	X	X					
6/13/2018	0838	Reservoir Effluent Site #5	DW	ID	N/A				X					X	X			
6/13/2018	0838	Reservoir Effluent Site #5	DW	ID	2, 7												X	

Preservatives: (1) Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> (2) HCl (3) HNO<sub>3</sub> (4) NH<sub>4</sub>Cl  
(5) H<sub>2</sub>SO<sub>4</sub> (6) Na<sub>2</sub>SO<sub>3</sub> (7) Cold (8) Other:

Relinquished By (Sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company
<i>Patrick McCue</i>	Patrick McCue / City of Lomita	6/13/2018 11:30	<i>J. McCue</i>	J. McCue / CCB
<i>J. McCue</i>	J. McCue / CCB	6-13-18 / 3:00	<i>J. McCue</i>	J. McCue / CCB

Comments: Samples received ☒ On ice ( ) Contact ( ) Custody seals Temp 5.9 ( ) F ☒ C

Shipped Via ☐ Fed X ☐ Golden State ☐ UPS ☐ Client ☐ Other ☐

Page 1 of 1



# *Clinical Laboratory of San Bernardino, Inc.*



06 July 2018

Clinical Lab No.: 18F1740

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

Project Name: Standard Analysis  
Sub Project: CWPF 3rd Week of June, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 06/20/18 . 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,

A handwritten signature in black ink, appearing to read "Stu Styles", with a stylized flourish at the end.

Stu Styles  
Client Services Manager



# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf 3rd Week of June, 2018 Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 18F1740  
Received: 06/20/18 15:00  
Reported: 07/06/18

## Reservoir Influent Site #3

**18F1740-01 (Water)**

**Sample Date:** 06/20/18 8:25 **Sampler:** P.M.

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>10.9</b>		N/A	mg/L	06/20/18	06/20/18	1825113	
<b>pH (Field)</b>	Field	<b>7.55</b>		N/A	pH Units	06/20/18	06/20/18	1825113	
<b>Temperature (Field)</b>	Field	<b>22.9</b>		N/A	°C	06/20/18	06/20/18	1825113	

### General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	<b>5.0</b>	3.0	15	Color Units	06/20/18	06/20/18	1825157	
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### Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/21/18	06/21/18	1825110	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/21/18	06/21/18	1825110	

## Reservoir Effluent Site #5

**18F1740-02 (Water)**

**Sample Date:** 06/20/18 8:30 **Sampler:** P.M.

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>3.36</b>		N/A	mg/L	06/20/18	06/20/18	1825113	
<b>pH (Field)</b>	Field	<b>7.87</b>		N/A	pH Units	06/20/18	06/20/18	1825113	
<b>Temperature (Field)</b>	Field	<b>22.1</b>		N/A	°C	06/20/18	06/20/18	1825113	

### General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	<b>5.0</b>	3.0	15	Color Units	06/20/18	06/20/18	1825157	
<b>Odor Threshold</b>	EPA 140.1-M	<b>2</b>	1	3	TON	06/20/18	06/20/18	1825157	

### General Chemical Analyses

<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>670</b>	5.0	1000	mg/L	06/27/18	06/29/18	1826095	
ND	Analyte NOT DETECTED at or above the reporting limit								





June 28, 2018

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



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

### LABORATORY TEST RESULTS

Project Reference: 18F1740  
Lab Number: J062106-01

Enclosed are results for sample(s) received 6/21/18 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 TNI 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**  
**18F1740**

J062106-01/02  
MT

**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 [x] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [x] No

Water Trax Upload Client: [ ] Yes [x] No

Turn Around Time [ ] 10 Days [x] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis**

**Comments**

Sample ID: Reservoir Effluent Site #5 / 18F1740-02

Sampled: 06/20/18 08:30 PS Code:  
Water

WTX ID:

61

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

8<sup>00</sup>

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time



**Client:** Clinical Laboratory  
**Attn:** Stu Styles  
**Project Name:** NA  
**Project No.:** 18F1740  
**Date Received:** 06/21/18  
**Matrix:** Water  
**Reporting Units:** mg/L

**RSK175**

<b>Lab No.:</b>	<b>J062106-01</b>						
<b>Client Sample I.D.:</b>	<b>Reservoir Effluent</b>						
	<b>Site #5/ 18F1740-02</b>						
<b>Date/Time Sampled:</b>	<b>6/20/18 8:30</b>						
<b>Date/Time Analyzed:</b>	<b>6/28/18 9:18</b>						
<b>QC Batch No.:</b>	<b>180628GC8A1</b>						
<b>Analyst Initials:</b>	<b>AS</b>						
<b>Dilution Factor:</b>	<b>1.0</b>						
<b>ANALYTE</b>	<b>Result mg/L</b>	<b>RL mg/L</b>					
<b>Methane</b>	<b>0.16</b>	<b>0.0010</b>					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:   
**Mark Johnson**  
**Operations Manager**

Date 6-28-18

The cover letter is an integral part of this analytical report





## LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 180628GC8A1

Matrix: Air

Reporting Units: mg/L

RSK175  
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date/Time Analyzed:	6/28/18 9:05			6/28/18 8:38		6/28/18 8:52					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0					
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.769	118	0.779	119	1.2	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: \_\_\_\_\_

Mark Johnson  
Operations Manager

Date

6-28-18

The cover letter is an integral part of this analytical report





$$\frac{3}{0}$$

*"Your Water and Wastewater Analysis Solution"*



# *Clinical Laboratory of San Bernardino, Inc.*



10 July 2018

Clinical Lab No.: 18F2308

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

Project Name: Standard Analysis  
Sub Project: CWPF 4th Week of June, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 06/27/18 . 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,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles  
Client Services Manager



# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf 4th Week of June, 2018 Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 18F2308  
Received: 06/27/18 15:15  
Reported: 07/10/18

**Reservoir Influent Site #3** **18F2308-01 (Water)** **Sample Date:** 06/27/18 9:10 **Sampler:** P.M.

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>8.7</b>		N/A	mg/L	06/27/18	06/27/18	1826124	
<b>pH (Field)</b>	Field	<b>7.73</b>		N/A	pH Units	06/27/18	06/27/18	1826124	
<b>Temperature (Field)</b>	Field	<b>22.9</b>		N/A	°C	06/27/18	06/27/18	1826124	

## General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	<b>5.0</b>	3.0	15	Color Units	06/27/18	06/27/18	1826119	
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## Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/28/18	06/28/18	1826118	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/28/18	06/28/18	1826118	

**Reservoir Effluent Site #5** **18F2308-02 (Water)** **Sample Date:** 06/27/18 9:00 **Sampler:** P.M.

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>3.41</b>		N/A	mg/L	06/27/18	06/27/18	1826124	
<b>pH (Field)</b>	Field	<b>7.81</b>		N/A	pH Units	06/27/18	06/27/18	1826124	
<b>Temperature (Field)</b>	Field	<b>21.2</b>		N/A	°C	06/27/18	06/27/18	1826124	

## General Physical Analyses

<b>Apparent Color</b>	SM 2120BM	ND	3.0	15	Color Units	06/27/18	06/27/18	1826119	
<b>Odor Threshold</b>	EPA 140.1-M	<b>2</b>	1	3	TON	06/27/18	06/27/18	1826119	

## General Chemical Analyses

<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>600</b>	5.0	1000	mg/L	07/02/18	07/05/18	1827022	
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ND Analyte NOT DETECTED at or above the reporting limit





July 6, 2018

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



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

### LABORATORY TEST RESULTS

Project Reference: 18F2308  
Lab Number: J062803-01

Enclosed are results for sample(s) received 6/28/18 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 TNI 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

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**  
**18F2308**

J062803-01

**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 [x] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [x] No

Water Trax Upload Client: [ ] Yes [x] No

Turn Around Time [ ] 10 Days [x] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis**

**Comments**

Sample ID: Reservoir Effluent Site #5 / 18F2308-02

Sampled: 06/27/18 09:00 PS Code:  
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

10



**Client:** Clinical Laboratory  
**Attn:** Stu Styles  
**Project Name:** NA  
**Project No.:** 18F2308  
**Date Received:** 06/28/18  
**Matrix:** Water  
**Reporting Units:** mg/L

RSK175

Lab No.:	J062803-01						
Client Sample I.D.:	Reservoir Effluent Site #5/18F2308-02						
Date/Time Sampled:	6/27/18 9:00						
Date/Time Analyzed:	7/6/18 9:17						
QC Batch No.:	180706GC8A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result mg/L	RL mg/L					
Methane	0.23	0.0010					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson  
Operations Manager

Date 7-6-18

The cover letter is an integral part of this analytical report





## LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 180706GC8A1

Matrix: Air

Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY											
Lab No.:	METHOD BLANK			LCS		LCSD					
Date/Time Analyzed:	7/6/18 9:04			7/6/18 8:35		7/6/18 8:49					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0					
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.712	109	0.755	115	5.9	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson  
Operations ManagerDate 7-6-18

The cover letter is an integral part of this analytical report





*"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**

JUNE 2018					
DATE	DAY	METHANE HANDHELD			COMMENTS
6/1/2018	Fri	CH4-	4%	Oxy-	20.6%
6/2/2018	Sat	CH4-	0%	Oxy-	20.8%
6/3/2018	Sun	CH4-	0%	Oxy-	20.9%
6/4/2018	Mon	CH4-	1%	Oxy-	20.3%
6/5/2018	Tue	CH4-	0%	Oxy-	20.9%
6/6/2018	Wed	CH4-	0%	Oxy-	20.8%
6/7/2018	Thu	CH4-	0%	Oxy-	20.7%
6/8/2018	Fri	CH4-	0%	Oxy-	20.9%
6/9/2018	Sat	CH4-	0%	Oxy-	20.8%
6/10/2018	Sun	CH4-	0%	Oxy-	20.9%
6/11/2018	Mon	CH4-	0%	Oxy-	20.9%
6/12/2018	Tue	CH4-	1%	Oxy-	20.9%
6/13/2018	Wed	CH4-	1%	Oxy-	20.9%
6/14/2018	Thu	CH4-	2%	Oxy-	21.8%
6/15/2018	Fri	CH4-	3%	Oxy-	20.9%
6/16/2018	Sat	CH4-	0%	Oxy-	20.8%
6/17/2018	Sun	CH4-	2%	Oxy-	20.9%
6/18/2018	Mon	CH4-	0%	Oxy-	20.9%
6/19/2018	Tue	CH4-	3%	Oxy-	21.1%
6/20/2018	Wed	CH4-	1%	Oxy-	20.5%
6/21/2018	Thu	CH4-	0%	Oxy-	20.5%
6/22/2018	Fri	CH4-	0%	Oxy-	20.6%
6/23/2018	Sat	CH4-	0%	Oxy-	20.8%
6/24/2018	Sun	CH4-	4%	Oxy-	20.9%
6/25/2018	Mon	CH4-	4%	Oxy-	20.9%
6/26/2018	Tue	CH4-	0%	Oxy-	20.8%
6/27/2018	Wed	CH4-	1%	Oxy-	20.9%
6/28/2018	Thu	CH4-	1%	Oxy-	20.9%
6/29/2018	Fri	CH4-	0%	Oxy-	20.8%
6/30/2018	Sat	CH4-	0%	Oxy-	20.8%
ND- Non Detect CH4- 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: June 2018**

#	Code	Sample ID	Location	Sample Date	Temp °C	pH	Total Chlorine mg/L	Free Chlorine mg/L	Total Ammonia mg/L	Free Ammonia mg/L	Nitrite <sup>3</sup> mg/L	Nitrate mg/L	Coliform <sup>2</sup> P/A	HPC CFU/ml	Zone	Comments
1	D	S13-003	1948 W 252nd St	6/6/2018	21.8	7.90	3.50	0.04	0.59	0.00	0.008	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	6/6/2018	21.0	7.99	3.40	0.04	0.59	0.09	0.021	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	6/6/2018	21.8	7.99	3.60	0.06	0.66	0.02	0.009	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	6/6/2018	22.6	7.45	2.04	0.05	0.43	0.06	0.009	ND	A	2	1	Well/MWD Blend
5	D		Reservoir SP5	6/6/2018	20.9	8.07	3.90	0.12	0.76	0.00	0.004	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	6/6/2018	26.8	8.29	2.40	0.06	0.46	0.04	0.011	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	6/6/2018	19.8	8.27	2.40	0.08	0.53	0.11	0.007	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	6/6/2018	19.8	8.27	2.40	0.09	0.50	0.00	0.006	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	6/13/2018	21.8	7.82	3.30	0.06	0.66	0.06	0.005	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	6/13/2018	21.6	7.90	3.10	0.05	0.58	0.12	0.009	ND	A	2	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	6/13/2018	22.1	8.00	3.50	0.07	0.60	0.04	0.006	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	6/13/2018	21.2	7.94	2.07	0.04	0.55	0.19	0.005	ND	A	6	1	Well/MWD Blend
5	D		Reservoir SP5	6/13/2018	21.9	8.06	3.50	0.08	0.66	0.00	0.007	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	6/13/2018	20.9	8.40	2.50	0.02	0.51	0.09	0.006	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	6/13/2018	20.6	8.45	2.50	0.03	0.52	0.07	0.008	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	6/13/2018	20.7	8.38	2.40	0.02	0.53	0.04	0.003	ND	A	2	2	MWD Only
1	D	S13-003	1948 W 252nd St	6/20/2018	22.2	7.99	3.10	0.16	0.58	0.00	0.003	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	6/20/2018	22.0	7.94	3.10	0.04	0.58	0.05	0.009	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	6/20/2018	22.8	7.94	3.50	0.05	0.58	0.01	0.007	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	6/20/2018	21.8	7.97	1.95	0.04	0.38	0.15	0.007	ND	A	7	1	Well/MWD Blend
5	D		Reservoir SP5	6/20/2018	21.8	8.01	3.80	0.02	0.57	0.00	0.005	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	6/20/2018	21.3	8.24	2.30	0.03	0.44	0.05	0.006	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	6/20/2018	21.5	8.17	2.30	0.03	0.50	0.07	0.010	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	6/20/2018	21.8	8.36	2.30	0.02	0.42	0.05	0.006	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	6/27/2018	22.1	8.15	3.10	0.01	0.62	0.00	0.010	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	6/27/2018	22.0	8.06	3.20	0.02	0.52	0.07	0.012	ND	A	3	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	6/27/2018	21.8	8.03	3.30	0.00	0.60	0.09	0.004	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	6/27/2018	22.5	7.99	1.71	0.03	0.47	0.17	0.005	ND	A	77	1	Well/MWD Blend
5	D		Reservoir SP5	6/27/2018	21.2	7.81	3.41	0.02	0.61	0.00	0.004	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	6/27/2018	21.2	8.54	2.80	0.03	0.53	0.07	0.004	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	6/27/2018	20.2	8.54	2.50	0.04	0.49	0.07	0.005	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	6/27/2018	20.1	8.50	2.50	0.01	0.48	0.05	0.003	ND	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												2	MWD Only
6	D	S13-001	1912 W 259th St												3	MWD Only
7	D	S13-002	26314 S Monte Vista Ave												2	MWD Only
8	D	S13-005	2500 PCH												2	MWD Only

<sup>1</sup>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).

<sup>2</sup>Coliform results are part of weekly Bacti sampling results.

<sup>3</sup>The City is monitoring trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Hydrant flushing has been implemented.