CITY OF LOMITA

Cypress Water Production Facility Monthly Status Report

OCTOBER 2016

TABLE OF CONTENTS

CITY OF LOMITA

November 10, 2016

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 October 1 through October 31, 2016.

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 October 2016.

If you should have any questions or concerns, please contact me at 310-325-7110 x124.

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 for the final week of October 2016 maintaining water levels inside the reservoir ranging from 7' to 10'. The average flow from Well No. 5 was 410 gpm and 550 gpm from MWD. The blend ratio for the final week of October 2016 was 44% Well water and 56% MWD water. See Table 1 below for production totals for the month of October 2016.

Table 1. Monthly Production Totals.

	Production for October 2016		
Well No. 5	16.98	ac-ft	(739,608 gallons)
MWD	21.47	ac-ft	(6,995,000 gallons)
Combined Total	38.45	ac-ft	(12,527,264 gallons)
Daily	5.49	ac-ft/day	(1,789,609 gallons/day)

C. OPERATIONAL INTERRUPTIONS

The CWPF was taken offline during the months of August, September and the first three weeks of October 2016. The CWPF was put back online on October 24, 2016 and water was released into Zone I on October 25, 2016. 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 at the MCL. Iron and Manganese in the raw water (SP1) for the month were below the MCL. Iron and Manganese levels 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 610 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 727 mg/L and 543 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 310 mg/L. Although, this hardness level is in the upper range of 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 0.35 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 October 2016 in Appendix B.

E3-5 ODOR

The odor levels at the CWPF effluent averaged 4 units for the month.

E4. NITRIFICATION MONITORING

Weekly Nitrification sampling was performed during the month of October 2016, see Appendix C.

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
10/5/2016	520	300	110	50	15	15	A	-	-	500	OFFLINE	-	OFFLINE	-	OFFLINE	-
10/12/2016	300	300	140	50	15	15	A					-		-		-
10/19/2016	310	300	150	50	10	15	A					-		-		-
10/26/2016											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
10/5/2016	OFFLINE	OFFLINE	OFFLINE	OFFLINE	OFFLINE	OFFLINE	OFFLINE	OFFLINE	OFFLINE	OFFLINE
10/12/2016										
10/19/2016										
10/26/2016	4.26	0.44	3.26	0.82	0.25	2.87	0.61	0.05	2.23	0.56

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
10/5/2016	740	470	OFFLINE	-	OFFLINE	-	290	210			3.7	OFFLINE
10/12/2016	720	620		-		-	300	250			3.7	
10/19/2016	720	540		-		-	330	240			3.8	
10/26/2016			610	500-750	4	3			**310**	180-250		0.35
Average	**727**	**543**	**610**	500-750	**4**	3	**307**	**233**	**285**	180-250	**3.7**	**0.35**

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
***Hardness read missed during the last week of October 2016. Result from 11/2/16 was used to substitute in for the missed result. Additional sample will be taken in November 2016.**

Monthly CWPF Monitoring Report – OCTOBER 2016
Cypress Water Production Facility
City of Lomita; System No. 1910073

Sample Locations and Parameters	Frequency	MCL/ Goal	**10/5** 1stWk or **Mo. Result (date)**	**10/12** 2nd Wk	**10/19** 3rdWk	**10/26** 4th Wk	5th Wk	Comments and/or Other Info.
SP1 --- Also called Well 5 Raw Water or Site#1.								
TDS, ppm	Monthly	See SP5	**727 Avg**	**Operations Data/Information:** **CWPF operation days** **On Well 5:** Daily average flow - 410 gpm; total prod. – 16.98 AF **Combined Well 5/MWD data:** Average Well 5: MWD blend Ratio – 44% WELL:56% MWD; total prod.- 38.45 AF Chlorine Dosage: N/A*				*Chlorine injected after SP1, before entering the greensand filter. * THE CWPF WAS OFFLINE DURING THE 1ST THREE WEEKS OF OCTOBER. THE CWPF WAS PUT BACK ONLINE ON OCTOBER 24, 2015 AND RELEASED WATER INTO ZONE I ON OCTOBER 25, 2016.
Hardness	Monthly	See SP5	**307 Avg**					
CH4, ppm	Monthly	See SP5	**3.7 Avg**					
Iron, ppb	Monthly	See SP3	**378 Avg**					
Manganese, ppb	Monthly	See SP3	**133 Avg**					
Color, units	Monthly	See SP3	**13 Avg**					
Total Coliform, P or A	Monthly	A	**A Avg**					
SP2 --- Also called Filter Effluent or Site#3.								
Total Coliform, P or A	Monthly	A	-	Ammonia Dosage: N/A*				*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	-					
Free Cl Res, ppm	**Continuous**	Average: 4.26; Range: 4.26 – 4.26						
SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.								
Iron, ppb	Weekly	300	-	-	-	ND		
Manganese, ppb	Weekly	50	-	-	-	ND		
Color	Weekly	15	-	-	-	ND		
Free and Total Cl Res, ppm	**Continuous**	Free Cl: Average: 0.44; Range: Total Cl: Average: 3.26; Range: Ammonia: Average: 0.82; Range:						
SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.								
Phosphate Injection		Phosphate Dosage: 1.37 mg/L						
Free and Total Cl Res, ppm	**Continuous**	Free Cl: Average: 0.25; Range: Total Cl: Average: 2.87; Range: Ammonia: Average: 0.61; Range:						Cl/NH3 Ratio: 4.75
SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.								
TDS, ppm	Weekly	SI Goal: 500-750ppm	-	-	-	610		
Hardness	Monthly	SI Goal: 180-250ppm	-	-	-	310		
CH4, ppm	Weekly	Goal: from PA	-	-	-	0.35		% CH4 Removal: 91%
Odor, units	Monthly	1	-	-	-	4		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.05; Range: Total Cl: Average: 2.23; Range: Ammonia: Average: 0.56; Range:						Cl/NH3 Ratio: 4.00
Headspace of the Cypress Reservoir.								
[1]CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.14% CH4 Range: 0% - 1%					
SP 6 --- MWD Source Feeding CWPF. Also called Zone 2 of the distribution system or Site #6.								
TDS, ppm	Monthly	-----	543					
Hardness	Monthly	-------	233					

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.

21 October 2016 Clinical Lab No.: 16J0544

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

Project Name: Standard Analysis
Sub Project: Monthly Compliance / Weekly 1st Week October

Enclosed are the results of the analyses for samples received at the laboratory on 10/05/16 . 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: 16J0544
24373 Walnut Avenue	Sub Project: Monthly Compliance / Weekly 1st Week October	Received: 10/05/16 17:00
Lomita CA, 91717	Project Manager: Mark Andersen	Reported: 10/21/16

Raw Water Site #1 **16J0544-01 (Water)** **Sample Date:** 10/05/16 9:00 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
pH (Field)	Field	**8.5**		N/A	pH Units	10/05/16	10/05/16	1641414	
Temperature (Field)	Field	**22.5**		N/A	°C	10/05/16	10/05/16	1641414	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	10/05/16	10/06/16	1641334	
E. Coli	SM 9223	A		N/A	P/A	10/05/16	10/06/16	1641334	
Plate Count	SM9215B	ND	1	500	CFU/ml	10/05/16	10/07/16	1641442	
General Physical Analyses									
Apparent Color	SM 2120B	**15.0**	3.0	15	Color Units	10/05/16	10/05/16	1641355	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**290**	6.6	N/A	mg/L	10/13/16	10/13/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**740**	5.0	1000	mg/L	10/12/16	10/17/16	1642173	
Metals									
Calcium (Ca)	EPA 200.7	**75**	1.0	N/A	mg/L	10/13/16	10/13/16	1642253	
Iron (Fe)	EPA 200.7	**520**	200	300	ug/L	10/14/16	10/14/16	1642395	
Magnesium (Mg)	EPA 200.7	**25**	1.0	N/A	mg/L	10/13/16	10/13/16	1642253	
Manganese (Mn)	EPA 200.7	**110**	40	50	ug/L	10/14/16	10/14/16	1642395	

Zone #2 Site #6 **16J0544-02 (Water)** **Sample Date:** 10/05/16 9:30 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**2.1**		N/A	mg/L	10/05/16	10/05/16	1642045	
pH (Field)	Field	**8.5**		N/A	pH Units	10/05/16	10/05/16	1641414	
Temperature (Field)	Field	**22.5**		N/A	°C	10/05/16	10/05/16	1641414	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**210**	6.6	N/A	mg/L	10/10/16	10/10/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**470**	5.0	1000	mg/L	10/12/16	10/17/16	1642173	
Metals									
Calcium (Ca)	EPA 200.7	**52**	1.0	N/A	mg/L	10/10/16	10/10/16	1641370	
Magnesium (Mg)	EPA 200.7	**19**	1.0	N/A	mg/L	10/10/16	10/10/16	1641370	

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

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 6J07042

Project: 16J0544

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.
21881 Barton Road
Grand Terrace, CA 92313

Report Date: 10/24/2016

Received Date: 10/7/2016

Turnaround Time: 7 workdays

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Dear John Styles,

Enclosed are the results of analyses for samples received 10/07/16 with the Chain-of-Custody document. The samples were received in good condition, at 3.2 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results NELAP #E87847

Sample: Raw Water Site #1/ 16J0544-01
6J07042-01 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Dissolved Gases in Water by RSK-175						
Method: RSK-175	**Batch ID:** W6J1318	**Prepared:** 10/17/16 00:00				**Analyst:** _sub
Methane	**3.7**	0.0010	mg/l	*1*	10/17/16	S_AIR

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Notes and Definitions

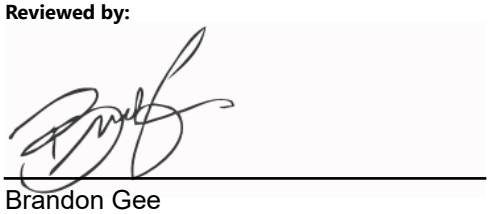
Item	Definition
S_AIR	Analysis subcontracted to Air Technology Laboratories, Inc., NELAP Certificate # E87847
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Not Certified Analyses Summary

Analyte	CAS #	Not Accredited By
RSK-175 in Water		
Methane	74-82-8	NELAP

Reviewed by:



Brandon Gee
Operations Manager/Senior PM

DoD-ELAP #L15-366 • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L15-365 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

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

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

6J07042

~~6J07044~~ AH

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16J0544

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:

Weck Lab, Analytical & Environmental
Analytical & Environmental Svc 14859 E Clark Ave
Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

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 / 16J0544-01	**Sampled: 10/05/16 09:00 PS Code: Water** **WTX ID:**
Methane RSK175	Report in mg/L

Containers Supplied:
40mL Amber Vial w/ Na2S2O3 (B) 40mL Amber Vial w/ Na2S2O3 (C)

3.2°

Released By	10/06/16 16:15 Date / Time	Received By	10/7/16 900 Date / Time
Released By	10/7/16 1105 Date / Time	Received By	10/7/16 1105 Date / Time

Clinical Laboratory of San Bernardino, Inc. 1630544 1/1 *Chain of Custody*

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	*Monthly Compliance/ Weekly 1st week Aug*	*YES*	
		ELAP #	
Comments		**1088**	
Sampled by	DGM		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Hetetrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Hardness	PLANT OFF LINE SCADA UPGRADE
10/5/2016	0900	Raw Water Site #1	GW	1W	N/A	N/A	X	X				X				PH 8.50 TEMP 22.5
10/5/2016	0900	Raw Water Site #1	GW	1W	2,7				X	X	X			X	X	
10/5/2016		Raw Water Site #1	GW	1W	1,7											
		Filter Effluent (Free Chlorine) Site#2	DW	1W	1,7											
		Filter Effluent (Total Chlorine) Site#3	DW	1W	N/A											
10/5/16	0930	Zone #2 Site #6	DW	1D	N/A	2.1	X								X	PH 8.50 TEMP 22.5
		Reservoir Effluent Site #5	DW	1D	N/A											
		Reservoir Effluent Site #5	DW	1D	2,7											

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*
Daniel Mateik	City of Lomita, CA	10/5/2016 11:15		J.Lucero/CLSB
	J.Lucero/CLSB	10/5/16 1700		

Comments:

Samples received: (✓) On ice ( ) Intact ( ) Custody seals Temp 9.9
( ) F (✓) 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.

27 October 2016

Clinical Lab No.: 16J1058

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

Project Name: Standard Analysis
Sub Project: CWPF 2ND Week OCT Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/12/16 . 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: 16J1058
24373 Walnut Avenue	Sub Project: CWPF 2ND Week OCT Sampling	Received: 10/12/16 16:00
Lomita CA, 91717	Project Manager: Mark Andersen	Reported: 10/27/16

Reservoir Influent Site #1 **16J1058-01 (Water)** **Sample Date:** 10/12/16 9:30 **Sampler:** CB

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
pH (Field)	Field	**7.55**		N/A	pH Units	10/12/16	10/12/16	1642396	
Temperature (Field)	Field	**22.2**		N/A	°C	10/12/16	10/12/16	1642396	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	10/12/16	10/13/16	1642323	
E. Coli	SM 9223	A		N/A	P/A	10/12/16	10/13/16	1642323	
Plate Count	SM9215B	**15**	1	500	CFU/ml	10/12/16	10/14/16	1642413	
General Physical Analyses									
Apparent Color	SM 2120B	**15.0**	3.0	15	Color Units	10/12/16	10/12/16	1642331	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**300**	6.6	N/A	mg/L	10/19/16	10/19/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**720**	5.0	1000	mg/L	10/18/16	10/20/16	1643084	
Metals									
Calcium (Ca)	EPA 200.7	**79**	1.0	N/A	mg/L	10/19/16	10/19/16	1643067	
Iron (Fe)	EPA 200.7	**300**	100	300	ug/L	10/21/16	10/21/16	1643306	
Magnesium (Mg)	EPA 200.7	**25**	1.0	N/A	mg/L	10/19/16	10/19/16	1643067	
Manganese (Mn)	EPA 200.7	**140**	20	50	ug/L	10/21/16	10/21/16	1643306	

Reservoir Effluent Site #6 **16J1058-02 (Water)** **Sample Date:** 10/12/16 10:00 **Sampler:** CB

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**2.1**		N/A	mg/L	10/12/16	10/12/16	1642396	
pH (Field)	Field	**8.19**		N/A	pH Units	10/12/16	10/12/16	1642396	
Temperature (Field)	Field	**23.4**		N/A	°C	10/12/16	10/12/16	1642396	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**250**	6.6	N/A	mg/L	10/19/16	10/19/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**620**	5.0	1000	mg/L	10/18/16	10/20/16	1643084	
Metals									
Calcium (Ca)	EPA 200.7	**60**	1.0	N/A	mg/L	10/19/16	10/19/16	1643067	
Magnesium (Mg)	EPA 200.7	**24**	1.0	N/A	mg/L	10/19/16	10/19/16	1643067	

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

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1

Work Order: 16J1058
Report Date: 10/27/2016
Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

LOMITA-CITY, WATER DEPT. User ID: 4TH System: 1910073

WELL 05 Station No.: 1910073-003 Sampled: 161012 09:30

COLOR	Result: 15.0	Units: UNITS	Entry No.: 00081	Analyzed: 161012
TOTAL HARDNESS (AS CACO3)	Result: 300	Units: MG/L	Entry No.: 00900	Analyzed: 161019
CALCIUM	Result: 79	Units: MG/L	Entry No.: 00916	Analyzed: 161019
MAGNESIUM	Result: 25	Units: MG/L	Entry No.: 00927	Analyzed: 161019
IRON	Result: 300	Units: UG/L	Entry No.: 01045	Analyzed: 161021
MANGANESE	Result: 140	Units: UG/L	Entry No.: 01055	Analyzed: 161021
TOTAL DISSOLVED SOLIDS	Result: 720	Units: MG/L	Entry No.: 70300	Analyzed: 161020

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

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 6J14034

Project: 16J1058

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.
21881 Barton Road
Grand Terrace, CA 92313

Report Date: 10/24/2016

Received Date: 10/14/2016

Turnaround Time: 5 workdays

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Dear John Styles,

Enclosed are the results of analyses for samples received 10/14/16 with the Chain-of-Custody document. The samples were received in good condition, at 2.3 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results NELAP #E87847

Sample: Reservoir Influent Site#1/16J1058-01
6J14034-01 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Dissolved Gases in Water by RSK-175						
Method: RSK-175	**Batch ID:** W6J1318	**Prepared:** 10/17/16 00:00				**Analyst:** _sub
Methane	**3.7**	0.0010	mg/l	*1*	10/17/16	S_AIR

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Notes and Definitions

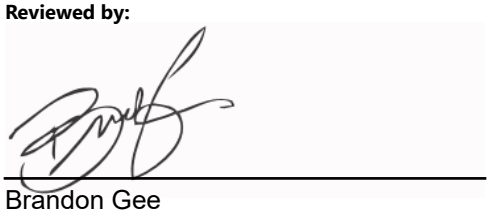
Item	Definition
S_AIR	Analysis subcontracted to Air Technology Laboratories, Inc., NELAP Certificate # E87847
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Not Certified Analyses Summary

Analyte	CAS #	Not Accredited By
RSK-175 in Water		
Methane	74-82-8	NELAP

Reviewed by:



Brandon Gee
Operations Manager/Senior PM

DoD-ELAP #L15-366 • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L15-365 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

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

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16J1058

6J14034

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:

Weck Lab, Analytical & Environmental
Analytical & Environmental Svc 14859 E Clark Ave
Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

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 Influent Site #1 / 16J1058-01	**Sampled: 10/12/16 09:30 PS Code: 1910073-003 Water WTX ID:**
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (C)	40ml Amber Vial (D)

2.3C

KFE 971

BJ Sh	10/14/16 07:50	m Clark	10/14/16 8:30
Released By	Date / Time	Received By	Date / Time
m Clark	10/14/16 9:45	Guangtian	10/14/16 09:45
Released By	Date / Time	Received By	Date / Time

Clinical Laboratory of San Bernardino, Inc.

1/1 | (1) *Chain of Custody*

16J1058

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 2nd Week OCT Sampling*	*No*	
		ELAP #	
Comments		**1088**	
Sampled by	*CB*		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	Total Chlorine	Iron	Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
10/12/2016	0930	Reservoir Influent Site #1	DW	1W	HCL	N/A	X	X	X	X	X	X	X		PH 7.55 TEMP 22.2
10/12/2016	1005	Reservoir Effluent Site #6	DW	1W	N/A	2.1			X			X			PH 8.19 TEMP 23.4

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*	*Received By (Sign)*	*Print Name / Company*
Carlos Bobadilla	City of Lomita	10/12/2016 / 12:00		J. Lucero / CLSB
	J. Lucero / CLSB	10-12-16 / 4:00		

Comments:

Samples received: (X) On ice (X) 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.

03 November 2016 Clinical Lab No.: 16J1612

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

Project Name: Standard Analysis
Sub Project: CWPF 3rd Week OCT Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/19/16 . 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: 16J1612
24373 Walnut Avenue	Sub Project: CWPF 3rd Week OCT Sampling	Received: 10/19/16 16:00
Lomita CA, 91717	Project Manager: Mark Andersen	Reported: 11/03/16

Reservoir Influent Site #1 **16J1612-01 (Water)** **Sample Date:** 10/19/16 9:30 **Sampler:** DM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
pH (Field)	Field	**7.47**		N/A	pH Units	10/19/16	10/19/16	1644064	
Temperature (Field)	Field	**21.5**		N/A	°C	10/19/16	10/19/16	1644064	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	10/19/16	10/20/16	1643307	
E. Coli	SM 9223	A		N/A	P/A	10/19/16	10/20/16	1643307	
Plate Count	SM9215B	**21**	1	500	CFU/ml	10/19/16	10/21/16	1643424	
General Physical Analyses									
Apparent Color	SM 2120B	**10.0**	3.0	15	Color Units	10/19/16	10/19/16	1643328	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**330**	6.6	N/A	mg/L	10/25/16	10/25/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**720**	5.0	1000	mg/L	10/26/16	10/31/16	1644212	
Metals									
Calcium (Ca)	EPA 200.7	**87**	1.0	N/A	mg/L	10/25/16	10/25/16	1644008	
Iron (Fe)	EPA 200.7	**310**	100	300	ug/L	10/27/16	10/27/16	1644218	
Magnesium (Mg)	EPA 200.7	**28**	1.0	N/A	mg/L	10/25/16	10/25/16	1644008	
Manganese (Mn)	EPA 200.7	**150**	20	50	ug/L	10/27/16	10/27/16	1644218	

Reservoir Effluent Site #6 **16J1612-02 (Water)** **Sample Date:** 10/19/16 10:00 **Sampler:** DM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**2.19**		N/A	mg/L	10/19/16	10/19/16	1644064	
pH (Field)	Field	**8.14**		N/A	pH Units	10/19/16	10/19/16	1644064	
Temperature (Field)	Field	**22.4**		N/A	°C	10/19/16	10/19/16	1644064	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**240**	6.6	N/A	mg/L	10/25/16	10/25/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**540**	5.0	1000	mg/L	10/26/16	10/31/16	1644212	
Metals									
Calcium (Ca)	EPA 200.7	**58**	1.0	N/A	mg/L	10/25/16	10/25/16	1644008	
Magnesium (Mg)	EPA 200.7	**23**	1.0	N/A	mg/L	10/25/16	10/25/16	1644008	

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

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1

Work Order: 16J1612
Report Date: 11/03/2016
Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

LOMITA-CITY, WATER DEPT. User ID: 4TH System: 1910073

WELL 05 Station No.: 1910073-003 Sampled: 161019 09:30

COLOR	Result: 10.0	Units: UNITS	Entry No.: 00081	Analyzed: 161019
TOTAL HARDNESS (AS CACO3)	Result: 330	Units: MG/L	Entry No.: 00900	Analyzed: 161025
CALCIUM	Result: 87	Units: MG/L	Entry No.: 00916	Analyzed: 161025
MAGNESIUM	Result: 28	Units: MG/L	Entry No.: 00927	Analyzed: 161025
IRON	Result: 310	Units: UG/L	Entry No.: 01045	Analyzed: 161027
MANGANESE	Result: 150	Units: UG/L	Entry No.: 01055	Analyzed: 161027
TOTAL DISSOLVED SOLIDS	Result: 720	Units: MG/L	Entry No.: 70300	Analyzed: 161031

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

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 6J21016

Project: 16J1612

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.
21881 Barton Road
Grand Terrace, CA 92313

Report Date: 11/03/2016
Received Date: 10/21/2016
Turnaround Time: 5 workdays
Phones: (909) 825-7693
Fax: (909) 825-7696
P.O. #:

Dear John Styles,

Enclosed are the results of analyses for samples received 10/21/16 with the Chain-of-Custody document. The samples were received in good condition, at 1.0 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results NELAP #E87847

Sample: Reservoir Influent Site #1/16J1612-01
6J21016-01 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Dissolved Gases in Water by RSK-175						
Method: RSK-175 **Batch ID:** W6K0217 **Prepared:** 10/31/16 10:05						**Analyst:** _sub
Methane	**3.8**	0.0010	mg/l	*1*	10/31/16	S_AIR

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Notes and Definitions

Item	Definition
S_AIR	Analysis subcontracted to Air Technology Laboratories, Inc., NELAP Certificate # E87847
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Not Certified Analyses Summary

Analyte	CAS #	Not Accredited By
RSK-175 in Water		
Methane	74-82-8	NELAP

Reviewed by:

Chris Samatmanakit For Brandon Gee
Operations Manager/Senior PM

DoD-ELAP #L15-366 • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L15-365 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A

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

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16J1612 GJZ1016

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:

Weck Lab, Analytical & Environmental
Analytical & Environmental Svc 14859 E Clark Ave
Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

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 Influent Site #1 / 16J1612-01	**Sampled: 10/19/16 09:30 PS Code: 1910073-003** **Water** **WTX ID:**
Methane RSK175	Report in mg/L

Containers Supplied:

40ml Amber Vial (C) 40ml Amber Vial (D)

1.02

Released By	Date / Time	Received By	Date / Time
[signature]	10/21/16 07:45	[signature]	10/21/16 850
[signature]	10/21/16 958	[signature]	10/21/16 09:58

Clinical Laboratory of San Bernardino, Inc.

1/1 (80) *Chain of Custody*

16J1612

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 3rd Week OCT Sampling*	*No*	
Comments		ELAP #	
Sampled by	*DM*	**1088**	

Date	Time	Sample Idenitification	Matrix	Type	Preserv	Total Chlorine	Iron	Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
10/19/2016	0930	Reservoir Influent Site #1	DW	1W	HCL	N/A	X	X	X	X	X	X	X		TEMP 21.5 PH 7.47
10/19/2016	1000	Reservoir Influent Site #6	DW	1W	N/A	2.19			X			X			TEMP 22.4 PH 8.14

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*	*Received By (Sign)*	*Print Name / Company*
Daniel Mateik	City of Lomita	10/19/2016 / 12:30		J. Lucero / CSB
	J. Lucero / CSB	10.19.16 / 4:00		AM CSB

Comments:

Samples received: (X) On Ice (X) Intact ( ) Custody seals
Temp 10.9 ( ) 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.

03 November 2016 Clinical Lab No.: 16J2061

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

Project Name: Standard Analysis
Sub Project: CWPF 4th Week Oct Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/26/16 . 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 4th Week Oct Compliance Sampling
Project Manager: Mark Andersen

Work Order: 16J2061
Received: 10/26/16 15:50
Reported: 11/03/16

Reservoir Influent Site #3 **16J2061-01 (Water)** **Sample Date:** 10/26/16 9:15 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**2.98**		N/A	mg/L	10/26/16	10/26/16	1644331	
pH (Field)	Field	**7.64**		N/A	pH Units	10/26/16	10/26/16	1644331	
Temperature (Field)	Field	**20.8**		N/A	°C	10/26/16	10/26/16	1644331	
General Physical Analyses									
Apparent Color	SM 2120B	ND	3.0	15	Color Units	10/26/16	10/26/16	1644318	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/31/16	10/31/16	1644417	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/31/16	10/31/16	1644417	

Reservoir Effluent Site #5 **16J2061-02 (Water)** **Sample Date:** 10/26/16 9:30 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**2.3**		N/A	mg/L	10/26/16	10/26/16	1644331	
pH (Field)	Field	**8.08**		N/A	pH Units	10/26/16	10/26/16	1644331	
Temperature (Field)	Field	0		N/A	°C	10/26/16	10/26/16	1644331	
General Physical Analyses									
Apparent Color	SM 2120B	ND	3.0	15	Color Units	10/26/16	10/26/16	1644318	
Odor Threshold	EPA 140.1M	**4**	1	3	TON	10/26/16	10/26/16	1644318	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**610**	5.0	1000	mg/L	10/27/16	10/31/16	1644277	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/31/16	10/31/16	1644417	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/31/16	10/31/16	1644417	

ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1

Work Order: 16J2061
Report Date: 11/03/2016
Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

LOMITA-CITY, WATER DEPT. User ID: 4TH System: 1910073

WELL 05 TREATMENT PLANT EFFLUENT Station No.: 1910073-006 Sampled: 161026 09:15

COLOR	Result: ND	Units: UNITS	Entry No.: 00081	Analyzed: 161026
IRON	Result: ND	Units: UG/L	Entry No.: 01045	Analyzed: 161031
MANGANESE	Result: ND	Units: UG/L	Entry No.: 01055	Analyzed: 161031

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

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 6J28019

Project: 16J2061

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.
21881 Barton Road
Grand Terrace, CA 92313

Report Date: 11/03/2016
Received Date: 10/28/2016
Turnaround Time: 5 workdays
Phones: (909) 825-7693
Fax: (909) 825-7696
P.O. #:

Dear John Styles,

Enclosed are the results of analyses for samples received 10/28/16 with the Chain-of-Custody document. The samples were received in good condition, at 1.3 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results NELAP #E87847

Sample: Reservoir Effluent Site #5/16J2061-02
6J28019-01 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Dissolved Gases in Water by RSK-175						
Method: RSK-175 **Batch ID:** W6K0217 **Prepared:** 10/31/16 09:52						**Analyst:** _sub
Methane	**0.35**	0.0010	mg/l	*1*	10/31/16	S_AIR

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Notes and Definitions

Item	Definition
S_AIR	Analysis subcontracted to Air Technology Laboratories, Inc., NELAP Certificate # E87847
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Not Certified Analyses Summary

Analyte	CAS #	Not Accredited By
RSK-175 in Water		
Methane	74-82-8	NELAP

Reviewed by:

Chris Samatmanakit For Brandon Gee
Operations Manager/Senior PM

DoD-ELAP #L15-366 • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L15-365 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A

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

14859 East Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16J2061 6J28019

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:

Weck Lab, Analytical & Environmental
Analytical & Environmental Svc 14859 E Clark Ave
Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

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 / 16J2061-02	**Sampled: 10/26/16 09:30 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
B Shay	10/27/16 14:30	M Clark	10/28/16 8:30
M Clark	10/28/16 10:43		10/28/16 1043
Released By	Date / Time	Received By	Date / Time

1.3c

Clinical Laboratory of San Bernardino, Inc.

Ø|3

Chain of Custody

163 2061 | 17

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 OCT Compliance Sampling*	*yes*	
Comments	*For TC/EC/BACT see weekly Distro CoC*	ELAP #	
Sampled by	*DGM*	**1088**	

Date	Time	Sample Idenitification	Matrix	Type	Preserv	Total Chlorine	Iron	Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
10/26/2016	0915	Reservoir Influent Site #3	DW	1W	N/A	2.98	X	X		X					PH 7.64 Temp 20.8
10/26/2016	0930	Reservoir Effluent Site #5	DW	1W	N/A	2.3	X	X	X	X				X	PH 8.08 Temp 22.0
10/26/2016	0930	Reservoir Effluent Site #5	DW	1W	HCL						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*
Daniel Matak	City of Lomita	10/26/2016 1:00		J.Lucero/CLSB
	J.Lucero/CLSB	10-26-16 3:50		AM CLSB

Comments:

Samples received: ( ) On ice (X) 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.

Lomita, City of	Project:	Standard Analysis	Work Order: 16K0339
24373 Walnut Avenue	Sub Project:	Monthly Compliance / Weekly 1st Week November	Received: 11/02/16 15:50
Lomita CA, 91717	Project Manager:	Mark Andersen	Reported: 11/09/16

Reservoir Effluent Site #5 **16K0339-05 (Water)** **Sample Date:** 11/02/16 9:00 **Sampler:** DGM

Analyte	Method	Result	Units	Rep. Limit	MCL	Prepared	Analyzed	Batch	Qualifier
Clinical Laboratory of San Bernardino									
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**310**	mg/L	6.6		11/08/16	11/08/16	[CALC]	
Metals									
Calcium (Ca)	EPA 200.7	**80**	mg/L	1.0		11/08/16	11/08/16	1646053	F-06
Magnesium (Mg)	EPA 200.7	**28**	mg/L	1.0		11/08/16	11/08/16	1646053	F-06

F-06 Sample results non-reportable due to metals internal standard failure

ND Analyte NOT DETECTED at or above the reporting limit

DRAFT REPORT
DATA SUBJECT TO CHANGE

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

APPENDIX B

METHANE MONITORING LOG

CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

CYPRESS WATER PRODUCTION FACILITY
HANDHELD METHANE LOG READINGS

OCTOBER 2016				
DATE	**DAY**	**METHANE HANDHELD**		**COMMENTS**
10/1/2016	SA			CWPF OFFLINE
10/2/2016	SU			CWPF OFFLINE
10/3/2016	M			CWPF OFFLINE
10/4/2016	T			CWPF OFFLINE
10/5/2016	W			CWPF OFFLINE
10/6/2016	TH			CWPF OFFLINE
10/7/2016	F			CWPF OFFLINE
10/8/2016	SA			CWPF OFFLINE
10/9/2016	SU			CWPF OFFLINE
10/10/2016	M			CWPF OFFLINE
10/11/2016	T			CWPF OFFLINE
10/12/2016	W			CWPF OFFLINE
10/13/2016	TH			CWPF OFFLINE
10/14/2016	F			CWPF OFFLINE
10/15/2016	SA			CWPF OFFLINE
10/16/2016	SU			CWPF OFFLINE
10/17/2016	M			CWPF OFFLINE
10/18/2016	T			CWPF OFFLINE
10/19/2016	W			CWPF OFFLINE
10/20/2016	TH			CWPF OFFLINE
10/21/2016	F			CWPF OFFLINE
10/22/2016	SA			CWPF OFFLINE
10/23/2016	SU			CWPF OFFLINE
10/24/2016	M	CH_4- 0%	Oxy- 20.1%	
10/25/2016	T	CH_4- 0%	Oxy- 20.9%	
10/26/2016	W	CH_4- 0%	Oxy- 20.1%	
10/27/2016	TH	CH_4- 0%	Oxy- 20.9%	
10/28/2016	F	CH_4- 0%	Oxy- 20.3%	
10/29/2016	SA	CH_4- 1%	Oxy- 19.9%	
10/30/2016	SU	CH_4- 0%	Oxy- 20.1%	
10/31/2016	M	CH_4- 0%	Oxy- 20.2%	

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: __October 2016__

#	Code	Sample I.D	Location	Sample Date (and Time)	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform[2]	HPC	Zone	Comments
Units/Others →				MM/DD/YYYY Xx:xx am/pm	°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	10/5/2016	23.5	8.4	2.04	0.03	0.38	0.13	0.007	0.48	A	ND	1	MWD Only
2	D	S13-004	24632 S Moon Av	10/5/2016	23.6	8.38	1.96	0.09	0.36	0.07	0.005	0.47	A	ND	1	MWD Only
3	D	S13-008	25417 Pennsylvania Av	10/5/2016	24.1	8.41	1.22	0.53	0.31	0.14	0.006	0.62	A	ND	1	MWD Only
4	D	A	2052 Dawn St	10/5/2016	23.0	8.5	1.81	0.13	0.41	0.21	0.010	ND	A	ND	1	MWD Only
5	D		Reservoir	**CWPF OFFLINE**											1	-
6	D	S13-001	1912 W. 259th Pl	10/5/2016	21.9	8.47	2.2	0.11	0.37	0.17	0.004	0.48	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vta.	10/5/2016	21.2	8.66	2.1	0.19	0.39	0.22	0.005	0.49	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	10/5/2016	24.5	8.42	1.84	0.11	0.34	0.11	0.009	0.61	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252nd St	10/12/2016	21.4	8.03	2.4	0.12	0.38	0.10	0.003	ND	A	ND	1	MWD Only
2	D	S13-004	24632 S Moon Av	10/12/2016	21.9	8.11	2.06	0.07	0.38	0.14	0.005	ND	A	ND	1	MWD Only
3	D	S13-008	25417 Pennsylvania Av	10/12/2016	22.4	8.12	1.31	0	0.31	0.15	0.006	ND	A	ND	1	MWD Only
4	D	A	2052 Dawn St	10/12/2016	22.5	7.29	1.90	0.17	0.38	0.19	0.006	ND	A	2	1	MWD Only
5	D		Reservoir	**CWPF OFFLINE**											1	-
6	D	S13-001	1912 W. 259th Pl	10/12/2016	23.2	8.26	2.3	0	0.39	0.18	0.004	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vta.	10/12/2016	23.1	8.22	2.3	0	0.37	0.16	0.004	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	10/12/2016	22.9	8.18	1.6	0.46	0.38	0.11	0.006	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252nd St	10/19/2016	19.1	8.37	1.94	0.19	0.38	0.13	0.008	ND	A	ND	1	MWD Only
2	D	S13-004	24632 S Moon Av	10/19/2016	19.7	8.3	1.81	0.75	0.38	0.14	0.010	ND	A	ND	1	MWD Only
3	D	S13-008	25417 Pennsylvania Av	10/19/2016	20.5	8.26	1.22	0.13	0.29	0.19	0.019	ND	A	ND	1	MWD Only
4	D	A	2052 Dawn St	10/19/2016	21.8	8.42	1.82	0.35	0.38	0.16	0.019	ND	A	10	1	MWD Only
5	D		Reservoir	**CWPF OFFLINE**											1	-
6	D	S13-001	1912 W. 259th Pl	10/19/2016	21.7	8.24	1.98	0	0.41	0.17	0.011	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vta.	10/19/2016	21.9	8.21	1.86	0.24	0.32	0.17	0.011	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	10/19/2016	19.0	8.12	1.3	0.06	0.43	0.19	0.015	0.41	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252nd St	10/26/2016	21.6	8.31	1.92	0.19	0.41	0.13	0.005	ND	A	ND	1	We///MWD Blend
2	D	S13-004	24632 S Moon Av	10/26/2016	21.0	8.16	1.95	0.05	0.44	0.21	0.008	ND	A	ND	1	We///MWD Blend
3	D	S13-008	25417 Pennsylvania Av	10/26/2016	21.7	8.12	1.1	0.38	0.37	0.17	0.011	ND	A	ND	1	We///MWD Blend
4	D	A	2052 Dawn St	10/26/2016	23.3	8.13	2.01	0	0.43	0.18	0.009	ND	A	ND	1	We///MWD Blend
5	D		Reservoir	10/26/2016	21.4	8.00	2.40	0.19	0.60	0.17	-	ND	A	ND	1	We///MWD Blend
6	D	S13-001	1912 W. 259th Pl	10/26/2016	21.8	8.23	2.00	0.10	0.38	0.15	0.010	ND	A	1	2	MWD Only
7	D	S13-002	26314 S Monte Vta.	10/26/2016	22.3	8.24	2.17	0.26	0.34	0.15	0.012	ND	A	1	3	MWD Only
8	D	S13-005	2500 PCH	10/26/2016	21.3	8.25	2.04	0	0.39	0.17	0.015	ND	A	ND	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.