

CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

APRIL 2016

TABLE OF CONTENTS

COVER LETTER	1
A. BACKGROUND	2
B. WELL PRODUCTION AND OPERATIONS	2
C. OPERATIONAL INTERRUPTIONS	2
D. SAMPLE LOCATIONS	2
E. WATER QUALITY MONITORING	3
E1. IRON, MANGANESE AND COLOR	3
E2. FREE AND TOTAL CHLORINE RESIDUALS	3
E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE...3	
E3-1 TOTAL DISSOLVED SOLIDS (TDS)	3
E3-2 HARDNESS	4
E3-3 DISSOLVED METHANE (IN WATER)	4
E3-4 METHANE (IN AIR)	4
E4. NITRIFICATION MONITORING	4
F. TABLES	5

CITY COUNCIL

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



CITY OF LOMITA

ADMINISTRATION

RYAN SMOOT
CITY MANAGER

May 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 April 1 through April 30, 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 April 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 AND OPERATIONS

For the month of April 2016, the CWPF operated on a fill and draw cycle providing blended water with the reservoir level fluctuating with system demand. The Cypress Reservoir operated as follows: filled for 14 days and drew down for 16 days.

The total production from Well No. 5 for the month was approximately 66.27 ac-ft (21,593,526 gallons) with a daily production of approximately 4.73 ac-ft. The total combined production from both MWD import water and Well No. 5 was approximately 109.09 ac-ft (35,545,517 gallons) for the month with a combined daily production of approximately 7.79 ac-ft.

The daily average flow from Well No. 5 was 1,095 gpm. The average flow from the Well was determined by taking an average of the daily reads provided on the Daily Monitoring logs used onsite. The blend ratio for this month was on average 61% Well water and 39% MWD water.

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of April 2016. 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 1 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color and Iron in the raw water (SP1) for the month were below the MCL. Manganese concentrations in the raw water (SP1) were above the MCL. Iron and Manganese levels entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective. Other additional bacteriological laboratory samples collected included Total Coliform and Heterotrophic Plate Count (HPC) levels on the effluent side of the greensand filter (SP2) showing absent for both.

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 2 below for a weekly summary of results.

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

See Table 3 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 708 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 710 mg/L and 730 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 330 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 0.88 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 April 2016 in Appendix B.

E4. NITRIFICATION MONITORING

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

F. TABLES

Table 1. 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
4/6/2016	170	300	110	50	10	15	A	A	A	500	ND	300	ND	50	ND	15
4/13/2016											ND	300	ND	50	7.5	15
4/20/2016											ND	300	ND	50	5	15
4/27/2016											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 2. 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
4/6/2016	4.00	0.23	4.45	0.72	0.33	3.79	0.67	0.05	2.49	0.57
4/13/2016	4.66	0.27	3.83	0.62	0.23	3.51	0.69	0.08	2.56	0.61
4/20/2016	5.15	0.31	3.97	0.73	0.13	3.54	0.67	0.07	2.53	0.61
4/27/2016	6.36	0.30	4.97	0.73	0.13	4.14	0.69	0.23	2.79	0.67

Table 3. 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	SP5 - Reservoir Effluent	Goal= 180 - 250 mg/L	SP1 - Raw Well Water	SP5 - Reservoir Effluent
4/6/2016	710	730	720	500-750	5	3	340		7.7	0.83
4/13/2016			680	500-750			330	180-250		0.86
4/20/2016			730	500-750			320	180-250		0.94
4/27/2016			*700	500-750			330			0.87
Average			708	500-750			330	180-250		0.88

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
 *Read from 5/4/16

Monthly CWPFF Monitoring Report – APRIL 2016

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

Sample Locations and Parameters	Frequency	MCL/ Goal	4/6	4/13	4/20	4/27	N/A	Comments and/or Other Info.
			1stWk	2 nd Wk	3rdWk	4 th Wk	5 th Wk	
			or Mo. Result (date)					

SP1 --- Also called Well 5 Raw Water or Site#1.

TDS, ppm	Monthly	See SP5	710 (4/6)	Operations Data/Information: CWPFF operation days – 30 days (14 fill days; 16 draw days; 0 isolation days) On Well 5: Daily average flow - 1095 gpm; APRIL 2016 total prod. – 66.27 AF; Daily prod. – 4.73 AF Combined Well 5/MWD data: Average Well 5: MWD blend Ratio – 61%:39%; APRIL 2016 total prod. – 109.09 AF; Combined Daily prod. – 7.79 AF Chlorine Dosage: N/A*				APRIL 2016- No operational interruptions. *Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	N/A					
CH4, ppm	Monthly	See SP5	7.7 (4/6)					
Iron, ppb	Monthly	See SP3	170 (4/6)					
Manganese, ppb	Monthly	See SP3	110 (4/6)					
Color, units	Monthly	See SP3	10 (4/6)					
Total Coliform, P or A	Monthly	A	A (4/6)					

SP2 --- Also called Filter Effluent or Site#3.

Total Coliform, P or A	Monthly	A	A (4/6)	Ammonia Dosage: N/A*	*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	A (4/6)		
Free Cl Res, ppm	Continuous	Average: 5.04; Range: 4.00 – 6.36			

SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.

Iron, ppb	Weekly	300	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		
Color	Weekly	15	ND	7.5	5	ND		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.28; Range: 0.23 – 0.31 Total Cl: Average: 4.31; Range: 3.83 – 4.97 Ammonia: Average: 0.70; Range: 0.62 – 0.73						

SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.

Phosphate Injection		Phosphate Dosage: 2.0 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.20; Range: 0.13 – 0.33 Total Cl: Average: 3.74; Range: 3.51 – 4.14 Ammonia: Average: 0.68; Range: 0.67 – 0.69						Cl/NH3 Ratio: 5.52, chloraminated water into the Reservoir

SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.

TDS, ppm	Weekly	SI Goal: 500-750ppm	720	680	730	*700		*Read from 5/4/16. Missed last week of April 2016
Hardness	Monthly	SI Goal: 180-250ppm	340	330	320	330		
CH4, ppm	Weekly	Goal: from PA	0.83	0.86	0.94	0.87		% CH4 Removal: 89%
Odor, units	Monthly	5						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.11; Range: 0.05 – 0.23 Total Cl: Average: 2.59; Range: 2.49 – 2.79 Ammonia: Average: 0.62; Range: 0.57 – 0.67						Cl/NH3 Ratio: 4.21, chloraminated water supplied Zone I

Headspace of the Cypress Reservoir.

¹ CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.2% CH4 Range: 0% - 1%				
--	------------------	------------	---	--	--	--	--

SP 6 --- MWD Source Feeding CWPFF. Also called Zone 2 of the distribution system or Site #6.

TDS, ppm	Monthly	-----		730			None	
Hardness	Monthly	-----		N/A			None	

Notes: ¹Self-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.



06 May 2016

Clinical Lab No.: 16D2019

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 04/27/16 . 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,

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: CWP Weekly Compliance Sampling 4th Week April
Project Manager: Mark Andersen
Work Order: 16D2019
Received: 04/27/16 15:30
Reported: 05/06/16

Filter Effluent Site #3

16D2019-01 (Water)

Sample Date: 04/27/16 8:30 Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	4.76		N/A	mg/L	04/27/16	04/27/16	1618293	
pH (Field)	Field	7.69		N/A	pH Units	04/27/16	04/27/16	1618293	
Temperature (Field)	Field	20.7		N/A	°C	04/27/16	04/27/16	1618293	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	04/27/16	04/27/16	1618289	
----------------	----------	----	-----	----	-------------	----------	----------	---------	--

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	750	5.0	1000	mg/L	04/27/16	04/28/16	1618213	
------------------------------	----------	-----	-----	------	------	----------	----------	---------	--

Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	04/28/16	04/29/16	1618261	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	04/28/16	04/29/16	1618261	

Reservoir Effluent Site #5

16D2019-02 (Water)

Sample Date: 04/27/16 8:45 Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	3.19		N/A	mg/L	04/27/16	04/27/16	1618293	
pH (Field)	Field	7.68		N/A	pH Units	04/27/16	04/27/16	1618293	
Temperature (Field)	Field	20.1		N/A	°C	04/27/16	04/27/16	1618293	

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	330	6.6	N/A	mg/L	05/02/16	05/02/16	[CALC]	
----------------------------	------------	-----	-----	-----	------	----------	----------	--------	--

Metals

Calcium (Ca)	EPA 200.7	85	1.0	N/A	mg/L	05/02/16	05/02/16	1619005	
Magnesium (Mg)	EPA 200.7	28	1.0	N/A	mg/L	05/02/16	05/02/16	1619005	

ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16D2019

Report Date: 05/05/2016

Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

Page 1 of 1

LOMITA-CITY, WATER DEPT.

User ID: 4TH

System: 1910073

WELL 05 TREATMENT PLANT EFFLUENT

Station No.: 1910073-006

Sampled: 160427 08:30

COLOR

Result: ND

Units: UNITS

Entry No.: 00081

Analyzed: 160427

MANGANESE

Result: ND

Units: UG/L

Entry No.: 01055

Analyzed: 160429

TOTAL DISSOLVED SOLIDS

Result: 750

Units: MG/L

Entry No.: 70300

Analyzed: 160428



Certificate of Analysis

Report Date: 05/04/16 17:14

Received Date: 04/28/16 11:20

Turnaround Time: 5 workdays

Project: 16D2019

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

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

Dear John Styles :

Enclosed are the results of analyses for samples received 4/28/2016 with the Chain of Custody document. The samples were received in good condition, at 1.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6D28026-01

Sample ID: Reservoir Effluent Site #5 / 16D2019-02

Matrix: Water

Sampled by: Client

Sampled: 04/27/16 08:45

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	0.87		0.010	mg/l	1	RSK-175	5/3/16	5/3/16 17:16	W6E0201	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6E0201 - RSK-175

Blank (W6E0201-BLK1)

Prepared: 05/03/16 Analyzed: 05/03/16 16:16

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					

LCS (W6E0201-BS1)

Prepared: 05/03/16 Analyzed: 05/03/16 15:56

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.186		mg/l	0.198	94	85-115		

Duplicate (W6E0201-DUP1)

Source: 6D28026-01

Prepared: 05/03/16 Analyzed: 05/03/16 17:35

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	0.872	0.950		mg/l				8	20



Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

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

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

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Brandon Gee
(Project Manager)



ELAP # 1132
LACSD # 10143
NELAC #4047-002 ORELAP

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

Clinical Laboratory of San Bernardino, Inc.



10 May 2016

Clinical Lab No.: 16E0492

Client User
Lomita, City of
24373 Walnut Avenue
Lomita, CA 91717

Project Name: Standard Analysis
Sub Project: Monthly Compliance

Enclosed are the results of the analyses for samples received at the laboratory on 05/04/16 . 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,

DRAFT REPORT
DATA SUBJECT TO CHANGE

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly Compliance
Project Manager: Client User

Work Order: 16E0492
Received: 05/04/16 15:30
Reported: 05/10/16

Raw Water Site #1

16E0492-01 (Water)

Sample Date: 05/04/16 7:20

Sampler: D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Clinical Laboratory of San Bernardino

General Chemical Analyses

Total Filterable Residue/TDS SM 2540C 710 5.0 1000 mg/L 05/05/16 05/06/16 1619342

Zone #2 Site #6

16E0492-04 (Water)

Sample Date: 05/04/16 7:55

Sampler: D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Clinical Laboratory of San Bernardino

General Chemical Analyses

Total Filterable Residue/TDS SM 2540C 650 5.0 1000 mg/L 05/05/16 05/06/16 1619342

Reservoir Effluent Site #5

16E0492-05 (Water)

Sample Date: 05/04/16 7:50

Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Clinical Laboratory of San Bernardino

General Chemical Analyses

Total Filterable Residue/TDS SM 2540C 700 5.0 1000 mg/L 05/05/16 05/06/16 1619342

ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.



05 May 2016

Clinical Lab No.: 16D1602

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

Project Name: Standard Analysis
Sub Project: CWPF Weekly Compliance Sampling 3rd Week April

Enclosed are the results of the analyses for samples received at the laboratory on 04/20/16 . 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,

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: CWP Weekly Compliance Sampling 3rd Week April
Project Manager: Mark Andersen
Work Order: 16D1602
Received: 04/20/16 16:00
Reported: 05/05/16

Filter Effluent Site #3

16D1602-01 (Water)

Sample Date: 04/20/16 7:40 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	3.9		N/A	mg/L	04/20/16	04/20/16	1617383	
pH (Field)	Field	7.44		N/A	pH Units	04/20/16	04/20/16	1617383	
Temperature (Field)	Field	20.5		N/A	°C	04/20/16	04/20/16	1617383	

General Physical Analyses

Apparent Color	SM 2120B	5.0	3.0	15	Color Units	04/20/16	04/21/16	1617347	
-----------------------	----------	------------	-----	----	-------------	----------	----------	---------	--

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	750	5.0	1000	mg/L	04/22/16	04/26/16	1617352	
-------------------------------------	----------	------------	-----	------	------	----------	----------	---------	--

Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	04/28/16	04/29/16	1618261	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	04/28/16	04/29/16	1618261	

Reservoir Effluent Site #5

16D1602-02 (Water)

Sample Date: 04/20/16 7:50 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	2.46		N/A	mg/L	04/20/16	04/20/16	1617383	
pH (Field)	Field	7		N/A	pH Units	04/20/16	04/20/16	1617383	
Temperature (Field)	Field	19.3		N/A	°C	04/20/16	04/20/16	1617383	

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	320	6.6	N/A	mg/L	04/28/16	04/28/16	[CALC]	
-----------------------------------	------------	------------	-----	-----	------	----------	----------	--------	--

Metals

Calcium (Ca)	EPA 200.7	82	1.0	N/A	mg/L	04/28/16	04/28/16	1618171	
Magnesium (Mg)	EPA 200.7	28	1.0	N/A	mg/L	04/28/16	04/28/16	1618171	

ND Analyte NOT DETECTED at or above the reporting limit



Certificate of Analysis

Report Date: 04/25/16 15:47

Received Date: 04/22/16 10:09

Turnaround Time: 5 workdays

Project: 16D1602

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

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

Dear John Styles :

Enclosed are the results of analyses for samples received 4/22/2016 with the Chain of Custody document. The samples were received in good condition, at 0.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6D22007-01

Sample ID: Reservoir Effluent Site #5 / 16D1602-02

Matrix: Water

Sampled by: Client

Sampled: 04/20/16 07:50

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	0.94	0.0012	0.010	mg/l	1	RSK-175	4/22/16	4/22/16 14:03	W6D1185	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6D1185 - RSK-175

Blank (W6D1185-BLK1)

Prepared: 04/21/16 Analyzed: 04/21/16 20:57

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					

LCS (W6D1185-BS1)

Prepared: 04/21/16 Analyzed: 04/21/16 21:37

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.195		mg/l	0.198	99	85-115		

Duplicate (W6D1185-DUP1)

Source: 6D15037-01

Prepared: 04/21/16 Analyzed: 04/21/16 22:16

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	0.863	0.884		mg/l				2	20

Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

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

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

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002



Authorized Signature

Contact: Brandon Gee
(Project Manager)



ELAP # 1132
LACSD # 10143
NELAC #4047-002 ORELAP



The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

SUBCONTRACT ORDER
Clinical Laboratory of San Bernardino
16D1602

6522007

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

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

Transfer File requested; log in with Element ID only [] Yes [x] No

Turn Around Time [] 10 Days [x] 5 Days [] Other ___ Days

Subcontract Comments:

Analysis

Comments

Sample ID: Reservoir Effluent Site #5 / 16D1602-02

Sampled: 04/20/16 07:50 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

Released By: *Ben [Signature]* Date / Time: *4/22/16 07:15* Received By: *Dez Argosano* Date / Time: *4/22/16 9:08*
Released By: *Dez Argosano* Date / Time: *4/22/16 10:09* Received By: *[Signature]* Date / Time: *4.22.16 10:09*

16D 1602

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



03 May 2016

Clinical Lab No.: 16D1729

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

Project Name: Standard Analysis
Sub Project: CWPF Weekly Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 04/22/16 . 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,

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 Weekly Compliance Sampling
Project Manager: Mark Andersen

Work Order: 16D1729
Received: 04/22/16 14:55
Reported: 05/03/16

Reservoir Effluent Site #5

16D1729-01 (Water)

Sample Date: 04/22/16 9:30

Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

pH (Field)	Field	7.66		N/A	pH Units	04/22/16	04/22/16	1617428	
Temperature (Field)	Field	20.2		N/A	°C	04/22/16	04/22/16	1617428	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	730	5.0	1000	mg/L	04/26/16	04/27/16	1618118	
ND	Analyte NOT DETECTED at or above the reporting limit								

10/1

[illegible]

Clinical Laboratory of San Bernardino, Inc.



29 April 2016

Clinical Lab No.: 16D1079

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

Project Name: Standard Analysis
Sub Project: CWPF Weekly Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 04/13/16 . 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,

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: CWP Weekly Compliance Sampling
Project Manager: Mark Andersen

Work Order: 16D1079
Received: 04/13/16 16:00
Reported: 04/29/16

Filter Effluent Site #3

16D1079-01 (Water)

Sample Date: 04/13/16 6:00

Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	3.48		N/A	mg/L	04/13/16	04/13/16	1616457	
pH (Field)	Field	7.5		N/A	pH Units	04/13/16	04/13/16	1616457	
Temperature (Field)	Field	19.1		N/A	°C	04/13/16	04/13/16	1616457	

General Physical Analyses

Apparent Color	SM 2120B	7.5	3.0	15	Color Units	04/13/16	04/13/16	1616423	
-----------------------	----------	------------	-----	----	-------------	----------	----------	---------	--

Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	04/25/16	04/26/16	1618019	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	04/25/16	04/26/16	1618019	

Reservoir Effluent Site #5

16D1079-02 (Water)

Sample Date: 04/13/16 5:45

Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	2.82		N/A	mg/L	04/13/16	04/13/16	1616457	
pH (Field)	Field	7.4		N/A	pH Units	04/13/16	04/13/16	1616457	
Temperature (Field)	Field	21.2		N/A	°C	04/13/16	04/13/16	1616457	

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	330	6.6	N/A	mg/L	04/25/16	04/25/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	680	5.0	1000	mg/L	04/15/16	04/19/16	1616428	

Metals

Calcium (Ca)	EPA 200.7	87	1.0	N/A	mg/L	04/25/16	04/25/16	1618020	
Magnesium (Mg)	EPA 200.7	27	1.0	N/A	mg/L	04/25/16	04/25/16	1618020	

ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16D1079

Report Date: 04/29/2016

Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

Page 1 of 1

LOMITA-CITY, WATER DEPT.

User ID: 4TH

System: 1910073

WELL 05 TREATMENT PLANT EFFLUENT

Station No.: 1910073-006

Sampled: 160413 06:00

COLOR

Result: 7.5

Units: UNITS

Entry No.: 00081

Analyzed: 160413

IRON

Result: ND

Units: UG/L

Entry No.: 01045

Analyzed: 160426

MANGANESE

Result: ND

Units: UG/L

Entry No.: 01055

Analyzed: 160426



Certificate of Analysis

Report Date: 04/22/16 14:54

Received Date: 04/15/16 11:17

Turnaround Time: 5 workdays

Project: 16D1079

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

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

Dear John Styles :

Enclosed are the results of analyses for samples received 4/15/2016 with the Chain of Custody document. The samples were received in good condition, at 2.5 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6D15037-01

Sample ID: Reservoir Effluent Site #5 / 16D1079-02

Matrix: Water

Sampled by: Client

Sampled: 04/13/16 05:45

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	0.86	0.0012	0.010	mg/l	1	RSK-175	4/21/16	4/21/16 21:57	W6D1185	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6D1185 - RSK-175

Blank (W6D1185-BLK1)

Prepared: 04/21/16 Analyzed: 04/21/16 20:57

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					

LCS (W6D1185-BS1)

Prepared: 04/21/16 Analyzed: 04/21/16 21:37

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.195		mg/l	0.198	99	85-115		

Duplicate (W6D1185-DUP1)

Source: 6D15037-01

Prepared: 04/21/16 Analyzed: 04/21/16 22:16

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	0.863	0.884		mg/l				2	20



Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

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

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

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

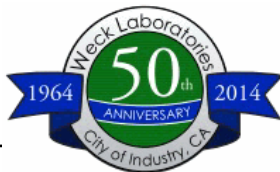
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Brandon Gee
(Project Manager)



ELAP # 1132
LACSD # 10143
NELAC #4047-002 ORELAP

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16D1079

6ed15037

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

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

Transfer File requested; log in with Element ID only [] Yes [x] No

Turn Around Time [] 10 Days [x] 5 Days [] Other ___ Days

Subcontract Comments:

Analysis**Comments**

Sample ID: Reservoir Effluent Site #5 / 16D1079-02

Sampled: 04/13/16 05:45 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

$$\frac{1}{2}\phi$$

601079

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



22 April 2016

Clinical Lab No.: 16D0508

Client User
Lomita, City of
24373 Walnut Avenue
Lomita, CA 91717

Project Name: Standard Analysis
Sub Project: Monthly / Weekly Compliance

Enclosed are the results of the analyses for samples received at the laboratory on 04/06/16 . 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,

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: Monthly / Weekly Compliance
Project Manager: Client User

Work Order: 16D0508
Received: 04/06/16 16:00
Reported: 04/22/16

Raw Water Site #1

16D0508-01 (Water)

Sample Date: 04/06/16 6:35 **Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	0.07		N/A	mg/L	04/06/16	04/06/16	1615569	
pH (Field)	Field	7.17		N/A	pH Units	04/06/16	04/06/16	1615528	
Temperature (Field)	Field	19.8		N/A	°C	04/06/16	04/06/16	1615529	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	04/06/16	04/07/16	1615399	
E. Coli	SM 9223	A		N/A	P/A	04/06/16	04/07/16	1615399	
Plate Count	SM9215B	100	1	500	CFU/ml	04/06/16	04/08/16	1615576	HT-08

General Physical Analyses

Apparent Color	SM 2120B	10.0	3.0	15	Color Units	04/06/16	04/06/16	1615403	
-----------------------	----------	-------------	-----	----	-------------	----------	----------	---------	--

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	710	5.0	1000	mg/L	04/08/16	04/11/16	1615492	
-------------------------------------	----------	------------	-----	------	------	----------	----------	---------	--

Metals

Iron (Fe)	EPA 200.7	170	100	300	ug/L	04/13/16	04/13/16	1616107	
Manganese (Mn)	EPA 200.7	110	20	50	ug/L	04/13/16	04/13/16	1616107	

Filter Effluent (Free Chlorine) Site #2

16D0508-02 (Water)

Sample Date: 04/06/16 6:50 **Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	5		N/A	mg/L	04/06/16	04/06/16	1615527	
pH (Field)	Field	7.62		N/A	pH Units	04/06/16	04/06/16	1615528	
Temperature (Field)	Field	21		N/A	°C	04/06/16	04/06/16	1615529	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	04/06/16	04/07/16	1615399	
E. Coli	SM 9223	A		N/A	P/A	04/06/16	04/07/16	1615399	
Plate Count	SM9215B	ND	1	500	CFU/ml	04/06/16	04/08/16	1615576	HT-08

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly / Weekly Compliance
Project Manager: Client User

Work Order: 16D0508
Received: 04/06/16 16:00
Reported: 04/22/16

Filter Effluent (Total Chlorine) Site #3

16D0508-03 (Water)

Sample Date: 04/06/16 7:00

Sampler: D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	4		N/A	mg/L	04/06/16	04/06/16	1615527	
pH (Field)	Field	7.63		N/A	pH Units	04/06/16	04/06/16	1615528	
Temperature (Field)	Field	20.3		N/A	°C	04/06/16	04/06/16	1615529	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	04/06/16	04/06/16	1615403	
----------------	----------	----	-----	----	-------------	----------	----------	---------	--

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	780	5.0	1000	mg/L	04/08/16	04/11/16	1615492	
-------------------------------------	----------	------------	-----	------	------	----------	----------	---------	--

Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	04/13/16	04/13/16	1616107	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	04/13/16	04/13/16	1616107	

Zone #2 Site #6

16D0508-04 (Water)

Sample Date: 04/06/16 6:40

Sampler: D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	2.2		N/A	mg/L	04/06/16	04/06/16	1615527	
pH (Field)	Field	8.16		N/A	pH Units	04/06/16	04/06/16	1615528	
Temperature (Field)	Field	17.6		N/A	°C	04/06/16	04/06/16	1615529	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	730	5.0	1000	mg/L	04/08/16	04/11/16	1615492	
-------------------------------------	----------	------------	-----	------	------	----------	----------	---------	--

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly / Weekly Compliance
Project Manager: Client User

Work Order: 16D0508
Received: 04/06/16 16:00
Reported: 04/22/16

Reservoir Effluent Site #5 **16D0508-05 (Water)** **Sample Date:** 04/06/16 6:30 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	2.64		N/A	mg/L	04/06/16	04/06/16	1615527	
pH (Field)	Field	7.23		N/A	pH Units	04/06/16	04/06/16	1615528	
Temperature (Field)	Field	18.9		N/A	°C	04/06/16	04/06/16	1615529	

General Physical Analyses

Odor Threshold	EPA 140.1M	5	1	3	TON	04/06/16	04/06/16	1615403	
-----------------------	------------	----------	---	---	-----	----------	----------	---------	--

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	340	6.6	N/A	mg/L	04/14/16	04/14/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	720	5.0	1000	mg/L	04/08/16	04/11/16	1615492	

Metals

Calcium (Ca)	EPA 200.7	87	1.0	N/A	mg/L	04/14/16	04/14/16	1616286	
Magnesium (Mg)	EPA 200.7	30	1.0	N/A	mg/L	04/14/16	04/14/16	1616286	

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

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16D0508

Report Date: 04/22/2016

Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

Page 1 of 1

LOMITA-CITY, WATER DEPT.

User ID: 4TH

System: 1910073

WELL 05	Station No.: 1910073-003			Sampled: 160406 06:35
COLOR	Result: 10.0	Units: UNITS	Entry No.: 00081	Analyzed: 160406
IRON	Result: 170	Units: UG/L	Entry No.: 01045	Analyzed: 160413
MANGANESE	Result: 110	Units: UG/L	Entry No.: 01055	Analyzed: 160413
TOTAL DISSOLVED SOLIDS	Result: 710	Units: MG/L	Entry No.: 70300	Analyzed: 160411
WELL 05 TREATMENT PLANT EFFLUENT	Station No.: 1910073-006			Sampled: 160406 07:00
COLOR	Result: ND	Units: UNITS	Entry No.: 00081	Analyzed: 160406
IRON	Result: ND	Units: UG/L	Entry No.: 01045	Analyzed: 160413
MANGANESE	Result: ND	Units: UG/L	Entry No.: 01055	Analyzed: 160413
TOTAL DISSOLVED SOLIDS	Result: 780	Units: MG/L	Entry No.: 70300	Analyzed: 160411



Certificate of Analysis

Project: 16D0508

Report Date: 04/18/16 16:31

Received Date: 04/08/16 09:42

Turnaround Time: 5 workdays

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

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

Dear John Styles :

Enclosed are the results of analyses for samples received 4/8/2016 with the Chain of Custody document. The samples were received in good condition, at 1.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6D08013-01 Sample ID: Raw Water Site #1/ 16D0508-01 Matrix: Water
Sampled by: Client Sampled: 04/06/16 06:35

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	7.7	0.024	0.20	mg/l	20	RSK-175	4/14/16	4/14/16 22:00	W6D0825	

Lab ID: 6D08013-02 Sample ID: Reservoir Effluent Site #5 / 16D0508-05 Matrix: Water
Sampled by: Client Sampled: 04/06/16 06:30

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	0.83	0.0012	0.010	mg/l	1	RSK-175	4/14/16	4/14/16 22:20	W6D0825	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6D0825 - RSK-175

Blank (W6D0825-BLK1)

Prepared: 04/14/16 Analyzed: 04/14/16 20:41

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					

LCS (W6D0825-BS1)

Prepared: 04/14/16 Analyzed: 04/14/16 20:21

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.225		mg/l	0.198	114	85-115		

Duplicate (W6D0825-DUP1)

Source: 6D08013-02

Prepared: 04/14/16 Analyzed: 04/14/16 22:40

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	0.828	0.829		mg/l				0.2	20



Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

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

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

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Brandon Gee
(Project Manager)



ELAP # 1132
LACSD # 10143
NELAC #4047-002 ORELAP

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

SUBCONTRACT ORDER
Clinical Laboratory of San Bernardino
16D0508

Ced08013

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

Transfer File requested; log in with Element ID only [] Yes [☒ No

Turn Around Time [] 10 Days [☒ 5 Days [] Other ___ Days

Subcontract Comments:

Analysis

Comments

Sample ID: Raw Water Site #1 / 16D0508-01

Sampled: 04/06/16 06:35 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)

Sample ID: Reservoir Effluent Site #5 / 16D0508-05

Sampled: 04/06/16 06:30 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

Released By

Date / Time

Received By

Date / Time

Released By: *BS Sty* Date / Time: *04/08/16 07:25* Received By: *Reg. Chapman* Date / Time: *4/8/16 845*
Released By: *Reg. Chapman* Date / Time: *4/8/16 842* Received By: *Sanchez* Date / Time: *4/8/16 0942 1.88*

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		YES											
				ELAP #											
Comments		WEEKLYS AS WELL		1088											
Sampled by		DGM													
Date	Time	Sample Identification		Matrix	Type	Preserv	Total Chlorine								
4/6/2016	0635	Raw Water Site #1		GW	IW	N/A	07								
4/6/2016	0635	Raw Water Site #1		GW	IW	2,7									
4/6/2016	0635	Raw Water Site #1		GW	IW	1,7									
4/6/2016	0650	Filter Effluent (Free Chlorine) Site#2		DW	IW	1,7	5,00								
4/6/2016	0700	Filter Effluent (Total Chlorine) Site#3		DW	IW	N/A	4,00								
4/6/2016	0640	Zone #2 Site #6		DW	ID	N/A	2.2								
4/6/2016	0630	Reservoir Effluent Site #5		DW	ID	N/A	2,64								
4/6/2016	0630	Reservoir Effluent Site #5		DW	ID	2,7									
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO ₃ (4) NH ₄ Cl (5) H ₂ SO ₄ (6) Na ₂ SO ₃ (7) Cold (8) Other:															
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company							
Daniel Mateik		City of Lomita, CA		4/6/2016 / 11:00				J. Luceno/CUSB							
		J. Luceno/CUSB		4-6-16 / 4:00				J. Luceno/CUSB							
Comments:								Samples received: <input checked="" type="checkbox"/> On ice () Intact () Custody seals Temp 9.7 () F (X) 9.7							
Shipped Via		Fed X		Golden State		UPS		Client		Other		Page 1 of 1			

"Your Water and Wastewater Analysis Solution"

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

**CYPRESS WATER PRODUCTION FACILITY
HANDHELD METHANE LOG READINGS**

APRIL 2016				
DATE	DAY	METHANE HANDHELD		COMMENTS
4/1/2016	F	CH ₄ - 0%	Oxy- 20.8%	
4/2/2016	SA	CH ₄ - 0%	Oxy- 20.8%	
4/3/2016	SU			
4/4/2016	M	CH ₄ - 0%	Oxy- 20.9%	
4/5/2016	T	CH ₄ - 1%	Oxy- 20.9%	
4/6/2016	W	CH ₄ - 0%	Oxy- 20.9%	
4/7/2016	TH	CH ₄ - 0%	Oxy- 20.9%	
4/8/2016	F	CH ₄ - 0%	Oxy- 20.9%	
4/9/2016	SA	CH ₄ - 1%	Oxy- 20.1%	
4/10/2016	SU			
4/11/2016	M	CH ₄ - 0%	Oxy- 20.8%	
4/12/2016	T	CH ₄ - 1%	Oxy- 20.9%	
4/13/2016	W	CH ₄ - 1%	Oxy- 20.9%	
4/14/2016	TH	CH ₄ - 0%	Oxy- 20.9%	
4/15/2016	F	CH ₄ - 0%	Oxy- 20.8%	
4/16/2016	SA	CH ₄ - 0%	Oxy- 20.9%	
4/17/2016	SU			
4/18/2016	M	CH ₄ - 0%	Oxy- 20.8%	
4/19/2016	T	CH ₄ - 0%	Oxy- 20.9%	
4/20/2016	W	CH ₄ - 1%	Oxy- 20.9%	
4/21/2016	TH	CH ₄ - 0%	Oxy- 20.9%	
4/22/2016	F	CH ₄ - 0%	Oxy- 20.9%	
4/23/2016	SA	CH ₄ - 0%	Oxy- 20.8%	
4/24/2016	SU			
4/25/2016	M	CH ₄ - 0%	Oxy- 20.9%	
4/26/2016	T	CH ₄ - 1%	Oxy- 20.9%	
4/27/2016	W	CH ₄ - 0%	Oxy- 20.9%	
4/28/2016	TH	CH ₄ - 0%	Oxy- 20.9%	
4/29/2016	F	CH ₄ - 0%	Oxy- 20.4%	
4/30/2016	SA	CH ₄ - 0%	Oxy- 20.8%	
ND- Non Detect				
CH ₄ - Methane				
Oxy- Oxygen				
Day Off/Holiday- Red				

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

1MONTHLY NITRIFICATION MONITORING SUMMARY REPORT

CITY OF LOMITA, System No. 1910073 --- Month, Year: APRIL 2016

#	C o d e	Sample I.D	Location	Sample Date (and Time)	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform ²	HPC	Z o n e	Comments
Units/Others→																
1	D	S13-003	1948 W. 252 nd St	MMDD/YYYY X:xx am/pm 4/6/2016	°C 23.2		mg/L 2.50	mg/L -	mg/L ND	mg/L ND	mg/L ND	mg/L ND	P/A A	CFU/ml 5	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	4/6/2016	21.3	7.21	1.17	-	ND	ND	ND	ND	A	30	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	4/6/2016	21.4	7.86	1.90	-	ND	ND	ND	ND	A	86	1	We//MWD Blend
4	D	A	2052 Dawn St	4/6/2016	20.1	7.47	0.50	-	ND	ND	ND	ND	A	230	1	We//MWD Blend
5	D		Reservoir	4/6/2016	18.9	7.18	2.64	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 th Pl	4/6/2016	24.2	7.76	2.40	-	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	4/6/2016	20.8	7.78	2.50	-	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	4/6/2016	20.1	8.20	2.30	-	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	4/13/2016	21.0	7.99	1.96	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	4/13/2016	20.3	8.00	0.65	-	ND	ND	ND	ND	A	150	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	4/13/2016	19.7	8.05	0.84	-	ND	ND	ND	ND	A	220	1	We//MWD Blend
4	D	A	2052 Dawn St	4/13/2016	21.0	7.40	0.21	-	ND	ND	ND	ND	A	380	1	We//MWD Blend
5	D		Reservoir	4/13/2016	19.4	7.75	2.90	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 th Pl	4/13/2016	21.0	8.38	2.40	-	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	4/13/2016	18.2	8.34	2.70	-	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	4/13/2016	18.3	8.57	2.20	-	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	4/20/2016	19.5	7.99	1.73	-	ND	ND	ND	ND	A	16	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	4/20/2016	19.5	7.88	0.61	-	ND	ND	ND	ND	A	190	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	4/20/2016	20.2	7.90	1.42	-	ND	ND	ND	ND	A	880	1	We//MWD Blend
4	D	A	2052 Dawn St	4/20/2016	20.0	7.40	0.22	-	ND	ND	ND	ND	A	860	1	We//MWD Blend
5	D		Reservoir	4/20/2016	19.0	8.00	2.62	-	ND	ND	ND	ND	A	1	1	We//MWD Blend
6	D	13-1	1912 W. 259 th Pl	4/20/2016	22.4	8.25	2.80	-	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	4/20/2016	18.9	7.06	2.60	-	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	4/20/2016	19.0	8.31	2.80	-	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	4/27/2016	24.6	7.72	1.57	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	4/27/2016	22.2	7.72	0.50	-	ND	ND	ND	ND	A	64	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	4/27/2016	22.3	7.81	1.45	-	ND	ND	ND	ND	A	130	1	We//MWD Blend
4	D	A	2052 Dawn St	4/27/2016	21.8	7.67	0.20	-	ND	ND	ND	ND	A	230	1	We//MWD Blend
5	D		Reservoir	4/27/2016	20.1	7.68	3.19	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 th Pl	4/27/2016	21.1	7.41	2.20	-	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	4/27/2016	19.5	7.26	2.20	-	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	4/27/2016	22.7	8.04	2.10	-	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St												1	We//MWD Blend
2	D	S13-004	24632 S Moon Av												1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av												1	We//MWD Blend
4	D	A	2052 Dawn St												1	We//MWD Blend
5	D		Reservoir												1	We//MWD Blend
6	D	13-1	1912 W. 259 th Pl												2	MWD Only
7	D	13-2	26314 S Monte Vita.												3	MWD Only
8	D	13-5	2500 PCH												2	MWD Only

¹Notes: 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).
²Coliform results are part of weekly Bacti sampling results.