

CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

FEBRUARY 2016

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CITY COUNCIL

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



CITY OF LOMITA

ADMINISTRATION

RYAN SMOOT
CITY MANAGER

March 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 February 1 through February 29, 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 February 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 February 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 12 days and drew for 17 days.

The total production from Well No. 5 for the month was approximately 72.11 ac-ft (23,494,261 gallons) with a daily production of approximately 6.01 ac-ft. The total combined production from both MWD import water and Well No. 5 was approximately 118.12 ac-ft (38,487,252 gallons) for the month with a combined daily production of approximately 9.84 ac-ft.

The daily average flow from Well No. 5 was 1,080 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 60% Well water and 40% MWD water.

C. OPERATIONAL INTERRUPTIONS

The Cypress Reservoir continued to supply Zone I with free chlorinated water. Staff will switch back to supplying chloraminated water in early March 2016. New ammonia/monochloramine analyzers were installed to assist in daily operations. Routine and preventive maintenance was performed on various pieces of equipment as-needed.

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. **Free chlorine data is only available due to Zone 1 being supplied exclusively with free chlorinated water**

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 680 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 740 mg/L and 650 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 270 mg/L. 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 2.45 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 February 2016 in Appendix B.

E4. NITRIFICATION MONITORING

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

F. TABLES

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
2/3/2016											ND**	300	ND**	50	ND**	15
2/10/2016											ND	300	ND	50	ND	15
2/17/2016	180	300	130	50	7.5	15	A	A	A	500	ND	300	ND	50	ND	15
2/24/2016											ND	300	ND	50	ND	15

Table 1. Monitoring Results for SP1, SP2, and SP3 Sample Locations.

Notes: Monthly- Orange Weekly- Yellow

A – Absent

ND – Non Detect

*Per the SWRCB Drinking Water “Chemicals and Contaminants in Drinking Water” Regulations

**Sample results for 2/3/16 were used in the January 2016 report. Samples were taken on 2/19/16 to replace these.

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
2/3/2016	5.02	4.01	-	-	3.22	-	-	1.59	-	-
2/10/2016	5.66	5.29	-	-	3.01	-	-	1.48	-	-
2/17/2016	5.55	5.08	-	-	3.05	-	-	1.29	-	-
2/24/2016	5.15	4.08	-	-	3.17	-	-	0.98	-	-

*Free chlorinated water supplied Zone 1 of the City's distribution system.

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
2/3/2016			650*	500-750			270*	180-250		2.20*
2/10/2016			700	500-750						2.10
2/17/2016	740	650	720	500-750	1	3			9.8*	2.60
2/24/2016			650	500-750						2.90
Average			680	500-750						2.45

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

*Sample results for 2/3/16 were used in the January 2016 report. Samples were taken on 2/19/16 to replace these.

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

Sample Locations and Parameters	Frequency	MCL/ Goal	Date 1stWk/ or Mo. Result	Date 2 nd Wk	Date 3rdWk	Date 4 th Wk	Date 5 th Wk	Met Freq.? Y/N	Met Std./ SI Goal? Y/N	Comments
SP1 --- Also called Well 5 Raw Water or Site#1.										
TDS, ppm	Monthly	See SP5	740	Operations Data/Information: CWPF operation days: 29 days (12 fill days; 17 drawdown days) Well 5 Only: Daily avg. flow- 1,080 gpm; February total prod.- 72.11 AF; Daily prod.- 6.01 AF Combined Well 5/MWD Data: Average Well5:MWD Blend Ratio – 60%;40%; February total prod.- 118.12 AF; Combined Daily prod.- 9.84 AF Chlorine Dosage: N/A				Y		
Hardness	Monthly	See SP5	-					Y		
CH4, ppm	Monthly	See SP5	9.8					Y		
Iron, ppb	Monthly	See SP3	180					Y		
Manganese, ppb	Monthly	See SP3	130					Y		
Color, units	Monthly	See SP3	7.5					Y		
Total Coliform, P or A	Monthly	-	A					Y	Y	
SP2 --- Also called Filter Effluent or Site#3.										
Total Coliform, P or A	Monthly	A	A	Operations Data/Information:				Y	Y	
HPC,MPN/100 ml	Monthly	500	A					Ammonia Dosage:		
Free Cl Res, ppm	Continuous	Average: 5.35; Range: 5.02 – 5.66						Y		
SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site #4.										
Iron, ppb	Weekly	300	ND	ND	ND	ND		Y	Y	
Manganese, ppb	Weekly	50	ND	ND	ND	ND		Y	Y	
Color	Weekly	15	ND	ND	ND	ND		Y	Y	
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 4.62; Range: 4.01 – 5.29 Total Cl: Average: ; Range: Ammonia: Average: ; Range:						Y		Met Cl/NH3 Ratio? – Y/N
SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.										
Phosphate Injection		Operations Data/Information: Phosphate Dosage:								
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 3.11; Range: 3.01 – 3.22 Total Cl: Average: ; Range: Ammonia: Average: ; Range:						Y		Met Cl/NH3 Ratio? – Y/N
SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.										
¹ TDS, ppm	Weekly	SI Goal: 500-750ppm	650	700	720	650		Y	SI Goal-Y	
¹ Hardness	Monthly	SI Goal: 180-250ppm	270					Y	SI Goal-Y	
CH4, ppm	Weekly	SI Goal: 1	2.2	2.1	2.6	2.9		Y	SI Goal-Y	%Removal -
Odor, units	Monthly	3			1			Y	Y	
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 1.34; Range: 0.98 – 1.59 Total Cl: Average: ; Range: Ammonia: Average: ; Range:						Y	Y	Met Cl/NH3 Ratio? – Y/N
Headspace of the Cypress Reservoir.										
¹ CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 1%; CH4 Range: 0% - 2%					Y	SI Goal-Y	
SP 6 --- MWD Source Feeding CWPF. Also called Zone 2 of the distribution system or Site #6.										
TDS, ppm	Monthly	-----		650				Y		Above or below goal
Hardness	Monthly	-----		-				Y		Above or below goal
Notes: ¹ Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 Goal-180-250 ppm.										

Note: This Report is due to DDW by the 10th of the following month.

APPENDIX A

LABORATORY RESULTS

Clinical Laboratory of San Bernardino, Inc.



22 February 2016

Clinical Lab No.: 16B1645

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

Project Name: Standard Analysis
Sub Project: Distribution Weekly

Enclosed are the results of the analyses for samples received at the laboratory on 02/19/16 . 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,

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: Distribution Weekly
Project Manager: Mark Andersen

Work Order: 16B1645
Received: 02/19/16 14:05
Reported: 02/22/16

Reservoir Effluent Site PS 2

16B1645-01 (Water)

Sample Date: 02/19/16 7:40

Sampler: Dan Mateik

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

Cl Res Free (Field)	Field	5.54		N/A	mg/L	02/19/16	02/19/16	1609012	
pH (Field)	Field	7.9		N/A	pH Units	02/19/16	02/19/16	1609016	
Temperature (Field)	Field	16		N/A	°C	02/19/16	02/19/16	1609013	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	02/19/16	02/20/16	1608560	
E. Coli	SM 9223	A		N/A	P/A	02/19/16	02/20/16	1608560	
Plate Count	SM9215B	ND	1	500	CFU/ml	02/19/16	02/21/16	1609005	HT-08

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

1681645 11010

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



25 February 2016

Clinical Lab No.: 16B1637

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

Project Name: Standard Analysis
Sub Project: CWPF Weekly Standard

Enclosed are the results of the analyses for samples received at the laboratory on 02/19/16 . Samples were received within temperature range, in correct containers and preservation.

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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 Standard
Project Manager: Mark Andersen

Work Order: 16B1637
Received: 02/19/16 14:05
Reported: 02/25/16

Reservoir Effluent Site SP #3

16B1637-01 (Water)

Sample Date: 02/19/16 8:10 Sampler: DGM

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

Cl Res Free (Field)	Field	4.3		N/A	mg/L	02/19/16	02/19/16	1608545	
pH (Field)	Field	7.2		N/A	pH Units	02/19/16	02/19/16	1608543	
Temperature (Field)	Field	15.9		N/A	°C	02/19/16	02/19/16	1608544	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	02/19/16	02/19/16	1609009	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	02/22/16	02/22/16	1609010	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	02/22/16	02/22/16	1609010	

ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16B1637

Report Date: 02/25/2016

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: 160219 08:10

COLOR

Result: ND

Units: UNITS

Entry No.: 00081

Analyzed: 160219

IRON

Result: ND

Units: UG/L

Entry No.: 01045

Analyzed: 160222

MANGANESE

Result: ND

Units: UG/L

Entry No.: 01055

Analyzed: 160222

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



03 March 2016

Clinical Lab No.: 16B1639

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

Project Name: Standard Analysis
Sub Project: CWPF Weekly Standard

Enclosed are the results of the analyses for samples received at the laboratory on 02/19/16 . 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,

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 Standard
Project Manager: Mark Andersen

Work Order: 16B1639
Received: 02/19/16 14:05
Reported: 03/03/16

Reservoir Effluent Site SP #5

16B1639-01 (Water)

Sample Date: 02/19/16 8:11 Sampler: DGM

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

Field Analyses

Cl Res Free (Field)	Field	1.54		N/A	mg/L	02/19/16	02/19/16	1609331	
pH (Field)	Field	7.5		N/A	pH Units	02/19/16	02/19/16	1609332	
Temperature (Field)	Field	19		N/A	°C	02/19/16	02/19/16	1609333	

General Chemical Analyses

Hardness, Total (as CaCO ₃)	Calculated	270	6.6	N/A	mg/L	02/22/16	02/22/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	650	5.0	1000	mg/L	02/22/16	02/23/16	1609048	

Metals

Calcium (Ca)	EPA 200.7	72	1.0	N/A	mg/L	02/22/16	02/22/16	1609041	
Magnesium (Mg)	EPA 200.7	23	1.0	N/A	mg/L	02/22/16	02/22/16	1609041	

ND Analyte NOT DETECTED at or above the reporting limit



Certificate of Analysis

Report Date: 03/03/16 11:58

Received Date: 02/22/16 13:00

Turnaround Time: 5 workdays

Project: 16B1639

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 2/22/2016 with the Chain of Custody document. The samples were received in good condition, at 2.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6B22043-01

Sample ID: Reservoir Effluent Site SP #5 / 16B1639-01

Matrix: Water

Sampled by: Client

Sampled: 02/19/16 08:11

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	2.2		0.010	mg/l	1	RSK-175	2/23/16	2/23/16 17:57	W6B1352	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6B1352 - RSK-175

Blank (W6B1352-BLK1)

Prepared: 02/23/16 Analyzed: 02/23/16 14:41

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

LCS (W6B1352-BS1)

Prepared: 02/23/16 Analyzed: 02/23/16 15:58

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.190		mg/l	0.198	96	85-115		

Duplicate (W6B1352-DUP1)

Source: 6B19043-01

Prepared: 02/23/16 Analyzed: 02/23/16 17:37

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	1.59	1.48		mg/l				7	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
16B1639

6B72043

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 SP #5 / 16B1639-01

Sampled: 02/19/16 08:11 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40mL Amber Vial HCl (B)

40mL Amber Vial HCl (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

2.9

0113

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



25 February 2016

Clinical Lab No.: 16B0931

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 02/10/16 . 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 Analysis
Project Manager: Mark Andersen

Work Order: 16B0931
Received: 02/10/16 15:30
Reported: 02/25/16

Filter Effluent Site #3

16B0931-01 (Water)

Sample Date: 02/10/16 8:45 **Sampler:** DGM

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

Field Analyses

Cl Res Free (Field)	Field	3.96		N/A	mg/L	02/10/16	02/10/16	1607450	
Temperature (Field)	Field	18.9		N/A	°C	02/10/16	02/10/16	1607451	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	02/10/16	02/10/16	1607529	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	02/16/16	02/16/16	1608081	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	02/16/16	02/16/16	1608081	

Reservoir Effluent Site #5

16B0931-02 (Water)

Sample Date: 02/10/16 8:45 **Sampler:** DGM

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

Cl Res Free (Field)	Field	1.1		N/A	mg/L	02/10/16	02/10/16	1607450	
Temperature (Field)	Field	18.9		N/A	°C	02/10/16	02/10/16	1607451	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	700	5.0	1000	mg/L	02/11/16	02/12/16	1607476	
ND	Analyte NOT DETECTED at or above the reporting limit								

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16B0931

Report Date: 02/25/2016

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: 160210 08:45

COLOR

Result: ND

Units: UNITS

Entry No.: 00081

Analyzed: 160210

IRON

Result: ND

Units: UG/L

Entry No.: 01045

Analyzed: 160216

MANGANESE

Result: ND

Units: UG/L

Entry No.: 01055

Analyzed: 160216



Certificate of Analysis

Project: 16B0931

Report Date: 02/19/16 08:18

Received Date: 02/11/16 12:45

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 2/11/2016 with the Chain of Custody document. The samples were received in good condition, at 2.7 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6B11036-01

Sample ID: Reservoir Effluent Site #5 / 16B0931-02

Matrix: Water

Sampled by: Client

Sampled: 02/10/16 08:45

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	2.1		0.010	mg/l	1	RSK-175	2/12/16	2/13/16 0:56	W6B0914	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6B0914 - RSK-175

Blank (W6B0914-BLK1)					Prepared: 02/12/16		Analyzed: 02/12/16 16:40		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					
Blank (W6B0914-BLK2)					Prepared: 02/16/16		Analyzed: 02/16/16 15:29		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Ethane		ND		mg/l					
Ethene		ND		mg/l					
LCS (W6B0914-BS1)					Prepared: 02/12/16		Analyzed: 02/12/16 17:20		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.218		mg/l	0.198	110	85-115		
LCS (W6B0914-BS2)					Prepared: 02/16/16		Analyzed: 02/16/16 16:09		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Ethane		0.729		mg/l	0.660	111	85-115		
Ethene		0.594		mg/l	0.560	106	85-115		
Duplicate (W6B0914-DUP1)					Source: 6B11070-01		Prepared: 02/12/16		Analyzed: 02/13/16 02:54
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	ND	ND		mg/l					
Ethane	ND	ND		mg/l					
Ethene	ND	ND		mg/l					



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
16B0931

6B11036

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 / 16B0931-02

Sampled: 02/10/16 08:45 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

[illegible]

Clinical Laboratory of San Bernardino, Inc.



03 March 2016

Clinical Lab No.: 16B1545

Mark Andersen
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 02/17/16 . 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 Compliance
Project Manager: Mark Andersen

Work Order: 16B1545
Received: 02/17/16 16:20
Reported: 03/03/16

Raw Water Site #1

16B1545-01 (Water)

Sample Date: 02/17/16 5:20 **Sampler:** DGM

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

Temperature (Field) Field **19** N/A °C 02/17/16 02/17/16 1608507

Microbiology Analyses

Total Coliform SM 9223 A N/A P/A 02/17/16 02/18/16 1608366

E. Coli SM 9223 A N/A P/A 02/17/16 02/18/16 1608366

General Physical Analyses

Apparent Color SM 2120B **7.5** 3.0 15 Color Units 02/17/16 02/17/16 1608371

General Chemical Analyses

Total Filterable Residue/TDS SM 2540C **740** 5.0 1000 mg/L 02/18/16 02/19/16 1608321

Metals

Iron (Fe) EPA 200.7 **180** 100 300 ug/L 02/22/16 02/22/16 1609010

Manganese (Mn) EPA 200.7 **130** 20 50 ug/L 02/22/16 02/22/16 1609010

Filter Effluent (Total Chlorine) Site #3

16B1545-02 (Water)

Sample Date: 02/17/16 5:40 **Sampler:** DGM

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

Cl Res Free (Field) Field **4.98** N/A mg/L 02/17/16 02/17/16 1608506

Temperature (Field) Field **19.1** N/A °C 02/17/16 02/17/16 1608507

General Physical Analyses

Apparent Color SM 2120B **ND** 3.0 15 Color Units 02/17/16 02/17/16 1608371

Metals

Iron (Fe) EPA 200.7 **ND** 100 300 ug/L 02/22/16 02/22/16 1609010

Manganese (Mn) EPA 200.7 **ND** 20 50 ug/L 02/22/16 02/22/16 1609010

Zone #2 Site #6

16B1545-03 (Water)

Sample Date: 02/17/16 5:50 **Sampler:** DGM

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

Cl Res Free (Field) Field **1.9** N/A mg/L 02/17/16 02/17/16 1608506

General Chemical Analyses

Total Filterable Residue/TDS SM 2540C **650** 5.0 1000 mg/L 02/18/16 02/19/16 1608321

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly Compliance
Project Manager: Mark Andersen

Work Order: 16B1545
Received: 02/17/16 16:20
Reported: 03/03/16

Reservoir Effluent Site #5

16B1545-04 (Water)

Sample Date: 02/17/16 5:30

Sampler: DGM

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

Cl Res Free (Field)	Field	1.54		N/A	mg/L	02/17/16	02/17/16	1608506	
Temperature (Field)	Field	19.5		N/A	°C	02/17/16	02/17/16	1608507	

General Physical Analyses

Odor Threshold	EPA 140.1M	1	1	3	TON	02/17/16	02/17/16	1608371	
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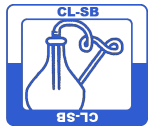
General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	720	5.0	1000	mg/L	02/18/16	02/19/16	1608321	
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ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16B1545

Report Date: 03/03/2016

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: 160217 05:20	
SOURCE TEMPERATURE C	Result: 19	Units: C	Entry No.: 00010	Analyzed: 160217	
COLOR	Result: 7.5	Units: UNITS	Entry No.: 00081	Analyzed: 160217	
IRON	Result: 180	Units: UG/L	Entry No.: 01045	Analyzed: 160222	
MANGANESE	Result: 130	Units: UG/L	Entry No.: 01055	Analyzed: 160222	
TOTAL DISSOLVED SOLIDS	Result: 740	Units: MG/L	Entry No.: 70300	Analyzed: 160219	
WELL 05 TREATMENT PLANT EFFLUENT	Station No.: 1910073-006			Sampled: 160217 05:40	
SOURCE TEMPERATURE C	Result: 19.1	Units: C	Entry No.: 00010	Analyzed: 160217	
COLOR	Result: ND	Units: UNITS	Entry No.: 00081	Analyzed: 160217	
IRON	Result: ND	Units: UG/L	Entry No.: 01045	Analyzed: 160222	
MANGANESE	Result: ND	Units: UG/L	Entry No.: 01055	Analyzed: 160222	

Printed: 03/03/2016 11:48:03 AM Results of 16B1545 FINAL WRITEON ALL_SAMPLES

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



Certificate of Analysis

Project: 16B1545

Report Date: 03/08/16 13:38

Received Date: 02/17/16 09:28

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 2/17/2016 with the Chain of Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6B19042-01 Sample ID: Reservoir Effluent Site #5 / 16B1545-04 Matrix: Water
Sampled by: Client Sampled: 02/17/16 05:20

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	2.6		0.20	mg/l	20	RSK-175	2/23/16	2/23/16 16:37	W6B1352	

Lab ID: 6B19042-02 Sample ID: Raw Water Site #1 / 16B1545-01 Matrix: Water
Sampled by: Client Sampled: 02/17/16 05:30

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	9.8		0.20	mg/l	20	RSK-175	2/23/16	2/23/16 18:16	W6B1352	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6B1352 - RSK-175

Blank (W6B1352-BLK1)

Prepared: 02/23/16 Analyzed: 02/23/16 14:41

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

LCS (W6B1352-BS1)

Prepared: 02/23/16 Analyzed: 02/23/16 15:58

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.190		mg/l	0.198	96	85-115		

Duplicate (W6B1352-DUP1)

Source: 6B19043-01

Prepared: 02/23/16 Analyzed: 02/23/16 17:37

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	1.59	1.48		mg/l				7	20

Certificate of Analysis

Case Narrative:

SUPP report generated to switch sample names to match the correct data sets per client request . BG 3/03/16

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
16B1545

6B19042

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: Raw Water Site #1 / 16B1545-01

Sampled: 02/17/16 05:20 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 / 16B1545-04

Sampled: 02/17/16 05:30 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40mL Amber Vial HCl (B)

40mL Amber Vial HCl (C)

1.92

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

Client		City of Lomita		System Number		Analysis Requested											
Address		24373 Walnut Avenue		1910073													
Phone #		(310) 325-9830		Destination Laboratory													
Fax #		(310) 325-3627		[X] Clinical Laboratory													
Project		Standard Analysis		RWQCB Compliance													
Sub Project		Monthly Compliance		YES													
Comments		Plant operating on Free CL2		ELAP #													
Sampled by		DGM		1088													
Date	Time	Sample Identification		Matrix	Type	Preserv	Free Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Heterotrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Comments / P.S. Codes	
2/17/2016	0520	Raw Water Site #1		GW	1W	N/A	N/A	X	X				X			TEMP 19	
2/17/2016	0520	Raw Water Site #1		GW	1W	2,7	N/A								X		
2/17/2016	0520	Raw Water Site #1		GW	1W	1,7	N/A			X	X						
2/17/2016	0530	Filter Effluent (Free Chlorine) Site#2		DW	1W	1,7	5.89				X	X				TEMP 19 not enough sample. will re-sample	
2/17/2016	0540	Filter Effluent (Total Chlorine) Site#3		DW	1W	N/A	4.98		X				X			TEMP 19.1 per analysis	
2/17/2016	0550	Zone #2 Site #6		DW	1D	N/A	1.9	X									
2/17/2016	0530	Reservoir Effluent Site #5		DW	1D	N/A	1.54	X					X			TEMP 19.5	
2/17/2016	0530	Reservoir Effluent Site #5		DW	1D	2,7	1.54								X		
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:				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 Matek		City of Lomita, CA		2/17/2016 / 12:15		[Signature]		J. M. [Signature]									
[Signature]		J. M. [Signature]		2-17-16 / 4:20		[Signature]		[Signature]									
Comments:				Samples received: On ice () Intact () Custody seals Temp 9.4 () F 88C													
Shipped Via		Fed X		Golden State		UPS		Client		Other		Page 1 of 1					

Clinical Laboratory of San Bernardino, Inc.



08 March 2016

Clinical Lab No.: 16B1976

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 02/24/16 . 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: 16B1976
Received: 02/24/16 14:20
Reported: 03/08/16

Filter Effluent Site #3

16B1976-01 (Water)

Sample Date: 02/24/16 6:00

Sampler: DGM

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

Field Analyses

Cl Res Free (Field)	Field	4.34		N/A	mg/L	02/24/16	02/24/16	1609392	
pH (Field)	Field	7.7		N/A	pH Units	02/24/16	02/24/16	1609393	
Temperature (Field)	Field	17		N/A	°C	02/24/16	02/24/16	1609394	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	02/24/16	02/24/16	1609460	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	02/26/16	02/26/16	1609309	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	02/26/16	02/26/16	1609309	

Reservoir Effluent Site #5

16B1976-02 (Water)

Sample Date: 02/24/16 6:30

Sampler: DGM

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

Field Analyses

Cl Res Free (Field)	Field	1.33		N/A	mg/L	02/24/16	02/24/16	1609392	
pH (Field)	Field	7.8		N/A	pH Units	02/24/16	02/24/16	1609393	
Temperature (Field)	Field	19		N/A	°C	02/24/16	02/24/16	1609394	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	650	5.0	1000	mg/L	02/25/16	02/26/16	1609357	
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ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16B1976

Report Date: 03/08/2016

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: 160224 06:00

COLOR

Result: ND

Units: UNITS

Entry No.: 00081

Analyzed: 160224

IRON

Result: ND

Units: UG/L

Entry No.: 01045

Analyzed: 160226

MANGANESE

Result: ND

Units: UG/L

Entry No.: 01055

Analyzed: 160226



Certificate of Analysis

Project: 16B1976

Report Date: 03/04/16 11:27

Received Date: 02/25/16 12:45

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 2/25/2016 with the Chain of Custody document. The samples were received in good condition, at 2.4 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6B25067-01

Sample ID: Reservoir Effluent Site #5? 16B1976-02

Matrix: Water

Sampled by: Client

Sampled: 02/24/16 14:20

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	2.9		0.10	mg/l	10	RSK-175	3/2/16	3/2/16 20:02	W6C0209	



Certificate of Analysis

Quality Control Section

Dissolved Gases in Water by RSK-175 - Quality Control

Batch W6C0209 - RSK-175

Blank (W6C0209-BLK1)

Prepared: 03/01/16 Analyzed: 03/02/16 19:02

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

LCS (W6C0209-BS2)

Prepared: 03/01/16 Analyzed: 03/02/16 19:42

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.210		mg/l	0.198	106	85-115		

Duplicate (W6C0209-DUP1)

Source: 6B25073-07

Prepared: 03/01/16 Analyzed: 03/02/16 22:40

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



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.

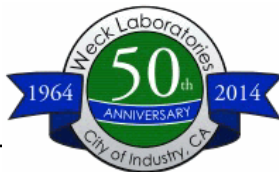
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

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
16B1976

6B25067

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 / 16B1976-02

Sampled: 02/24/16 14:20 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

Ben Shug
Chris McGee

02/25/16 07:40

2-25-16 / 12:45

Chris McGee
PHH

2-25-16 / 10:30

2-25-16 / 12:45

24

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

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

FEBRUARY 2016					
DATE	DAY	TIME	METHANE HANDHELD		COMMENTS
2/1/2016	M	10:00 AM	CH ₄ - 1%	Oxy- 20.9%	
2/2/2016	T	7:15 AM	CH ₄ - 0%	Oxy- 20.9%	
2/3/2016	W	7:30 AM	CH ₄ - 0%	Oxy- 20.9%	
2/4/2016	TH	7:30 AM	CH ₄ - 1%	Oxy- 20.0%	
2/5/2016	F	8:00 AM	CH ₄ - 0%	Oxy- 20.5%	
2/6/2016	SA				
2/7/2016	SU				
2/8/2016	M	8:00 AM	CH ₄ - 0%	Oxy- 20.9%	
2/9/2016	T	8:30 AM	CH ₄ - 0%	Oxy- 20.5%	
2/10/2016	W	8:00 AM	CH ₄ - 0%	Oxy- 20.9%	
2/11/2016	TH	9:45 AM	CH ₄ - 2%	Oxy- 20.9%	
2/12/2016	F				LINCOLN'S BIRTHDAY HOLIDAY
2/13/2016	SA				
2/14/2016	SU				
2/15/2016	M				PRESIDENT'S DAY HOLIDAY
2/16/2016	T	7:45 AM	CH ₄ - 1%	Oxy- 20.1%	
2/17/2016	W	5:15 AM	CH ₄ - 1%	Oxy- 20.9%	
2/18/2016	TH	8:00 AM	CH ₄ - 1%	Oxy- 20.5%	
2/19/2016	F	8:00 AM	CH ₄ - 1%	Oxy- 20.9%	
2/20/2016	SA				
2/21/2016	SU				
2/22/2016	M	8:30 AM	CH ₄ - 0%	Oxy- 20.5%	
2/23/2016	T	8:00 AM	CH ₄ - 2%	Oxy- 20.3%	
2/24/2016	W	8:00 AM	CH ₄ - 0%	Oxy- 20.9%	
2/25/2016	TH	8:00 AM	CH ₄ - 0%	Oxy- 20.5%	
2/26/2016	F				
2/27/2016	SA				
2/28/2016	SU				
2/29/2016	M	8:00 AM	CH ₄ - 0%	Oxy- 21.0%	
ND- Non Detect					
CH ₄ - Methane					
Oxy- Oxygen					
Weekend/Day Off/Holiday- Red					

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

1MONTHLY NITRIFICATION MONITORING SUMMARY REPORT

CITY OF LOMITA, System No. 1910073 --- Month, Year: FEBRUARY 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	MM/DD/YYYY Xc:xx am/pm 2/3/2016	°C 19.3	7.5	-	1.99	ND	ND	mg/L ND	mg/L ND	P/A A	CFU/ml ND	1	We//MMWD Blend
2	D	S13-004	24632 S Moon Av	2/3/2016	19.7	7.6	-	1.49	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
3	D	S13-008	25417 Pennsylvania Av	2/3/2016	19.7	7.6	-	1.43	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
4	D	A	2052 Dawn St	2/3/2016	19.1	7.6	-	1.39	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
5	D		Reservoir	2/3/2016	19.3	7.7	-	1.25	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
6	D	13-1	1912 W. 259 th Pl	2/3/2016	19.5	7.8	2.16	-	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Via.	2/3/2016	19.1	7.8	2.19	-	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	2/3/2016	19.3	7.8	1.6	-	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	2/10/2016	19.6	7.5	-	1.38	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
2	D	S13-004	24632 S Moon Av	2/10/2016	19.3	7.5	-	1.27	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
3	D	S13-008	25417 Pennsylvania Av	2/10/2016	19.1	7.5	-	1.1	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
4	D	A	2052 Dawn St	2/10/2016	19.8	7.5	-	0.93	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
5	D		Reservoir	2/10/2016	19.1	7.5	-	1.1	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
6	D	13-1	1912 W. 259 th Pl	2/10/2016	19.5	7.7	1.7	0.1	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Via.	2/10/2016	15.6	7.8	2.1	0.3	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	2/10/2016	15.2	7.8	2.2	0.6	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	2/17/2016	19.3	7.6	-	1.26	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
2	D	S13-004	24632 S Moon Av	2/17/2016	19.7	7.6	-	1.17	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
3	D	S13-008	25417 Pennsylvania Av	2/17/2016	19.7	7.6	-	1.33	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
4	D	A	2052 Dawn St	2/17/2016	20.0	7.6	-	1.03	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
5	D		Reservoir	2/17/2016	19.4	7.6	-	1.54	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
6	D	13-1	1912 W. 259 th Pl	2/17/2016	15.3	7.7	2.2	2.11	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Via.	2/17/2016	14.8	7.8	2.2	2.11	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	2/17/2016	15.3	7.8	2.3	2.18	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	2/24/2016	18.8	7.6	-	1.15	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
2	D	S13-004	24632 S Moon Av	2/24/2016	19	7.7	-	1.11	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
3	D	S13-008	25417 Pennsylvania Av	2/24/2016	19.3	7.7	-	1.08	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
4	D	A	2052 Dawn St	2/24/2016	19	7.7	-	0.83	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
5	D		Reservoir	2/24/2016	19.1	7.6	-	1.33	ND	ND	ND	ND	A	ND	1	We//MMWD Blend
6	D	13-1	1912 W. 259 th Pl	2/24/2016	19	7.8	1.98	-	ND	ND	ND	0.79	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Via.	2/24/2016	19.5	7.8	1.90	-	ND	ND	ND	0.79	A	ND	3	MWD Only
8	D	13-5	2500 PCH	2/24/2016	19.1	7.6	1.92	-	ND	ND	ND	0.78	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St												1	We//MMWD Blend
2	D	S13-004	24632 S Moon Av												1	We//MMWD Blend
3	D	S13-008	25417 Pennsylvania Av												1	We//MMWD Blend
4	D	A	2052 Dawn St												1	We//MMWD Blend
5	D		Reservoir												1	We//MMWD Blend
6	D	13-1	1912 W. 259 th Pl												2	MWD Only
7	D	13-2	26314 S Monte Via.												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.