# CITY OF LOMITA



# Cypress Water Production Facility Monthly Status Report

**MARCH 2016** 

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#### **CITY COUNCIL**

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



#### **ADMINISTRATION**

RYAN SMOOT
CITY MANAGER

April 11, 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

<u>Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility (CWPF) for the period of March 1 through March 31, 2016.</u>

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 March 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 March 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 10 days, drew down for 17 days, and was isolated for 4 days.

The total production from Well No. 5 for the month was approximately 52.39 ac-ft (17,070,026 gallons) with a daily production of approximately 5.24 ac-ft. The total combined production from both MWD import water and Well No. 5 was approximately 89.61 ac-ft (29,196,018 gallons) for the month with a combined daily production of approximately 8.96 ac-ft.

The daily average flow from Well No. 5 was 1,108 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 58% Well water and 42% MWD water.

#### C. OPERATIONAL INTERRUPTIONS

The Cypress Reservoir was isolated for four days to allow for stabilization within the reservoir and in preparation to supply Zone I with chloramines. During the isolation period, MWD was utilized to supply Zone I. Two Hach analyzers have been installed to properly enhance chloramine dosing and ratios. These new analyzers are anticipated to be online by the end of April 2016. 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 for the first three weeks of the March 2016, 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 685 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 400 mg/L, respectively.

#### E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 316 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 1.12 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 March 2016 in Appendix B.

### **E4. NITRIFICATION MONITORING**

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

# F. TABLES

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

		SP1, V	Vell Rav	v Water	Discha	arge		Pres	Comb sure F ffluen	ilter	SP3,		nloramin reservoir		static mi	xer;
Date, week of	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
3/2/2016	180	300	120	50	10	15	Α	Α	Α	500	ND	300	ND	50	ND	15
3/9/2016											**	300	**	50	**	15
3/16/2016											ND	300	ND	50	7.5	15
3/23/2016												300		50		15
3/30/2016											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

\*\*CWPF was offline

Table 2. Monitoring Results for Free and Total Chlorine at SP2, SP3, SP4 and SP5 Sample Locations.

	SP2		SP3			SP4			SP5	
Date, week of	Free CI	Free CI	Total CI	Total NH <sub>3</sub>	Free CI	Total CI	Total NH <sub>3</sub>	Free CI	Total CI	Total NH <sub>3</sub>
*3/2/2016	5.44	4.50	-	-	3.30	-	-	1.23	-	-
*3/9/2016	4.82	4.17	-	-	3.04	-	=	1.27	-	-
3/16/2016	-	-	-	-	-	-	-	0.97	1.42	0.25
3/23/2016	3.11	0.88	3.56	0.67	0.29	3.00	0.60	0.17	1.94	0.50
3/30/2016	5.01	0.34	4.27	0.51	0.15	3.22	0.56	0.07	2.52	0.60

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

Table 3. Monitoring Requirements and Frequencies for SP1, SP5, and SP6.

		TD	S, mg/L		T.C	O.N.	Hardr	ness, mg/L	The state of the state of the state of	thane er), mg/L
Date, week of	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
3/2/2016	740	400	660	500-750	1	3			6.1	1.30
3/9/2016			640	500-750			280	180-250		0.78
3/16/2016			710	500-750			320	180-250		1.00
3/23/2016		36.67		500-750			are take			
3/30/2016			730	500-750			350	180-250		1.40
Average			685	500-750			316	180-250		1.12

Weekly- Yellow

Notes: Monthly- Orange ppm – parts per million mg/L – milligram per liter T.O.N. - Threshold Odor Number

TDS - Total Dissolved Solids Hardness - As total CaCO3

Methane (Water) - Methane dissolved in water

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

Sample Locations Frequency MCL/ 3/2 3/9 3/16 3/23 3/30 Comments and Parameters Goal  $2^{nd}Wk$ 4<sup>th</sup>Wk 5<sup>th</sup>Wk 1stWk 3rdWk and/or Other Info. or Mo. Result (date) SP1 --- Also called Well 5 Raw Water or Site#1. TDS, ppm Monthly See SP5 740 (3/2) Operations Data/Information: Mar 2016- Reservoir isolated 4 days to allow See SP5 N/A Hardness Monthly CWPF operation days - 31 days (10 fill days; 17 for stabilization in draw days; 4 isolation days) See SP5 Monthly 6.1 preparation to switch CH4, ppm (3/2)On Well 5: Daily average flow - 1108 gpm; MARCH back to chloramines. Monthly See SP3 180 2016 total prod. - 52.39 AF; Daily prod.. - 5.24 AF Iron, ppb Free chlorinated water (3/2)Combined Well 5/MWD data: Average Well 5: MWD supplied Zone I during See SP3 Manganese, ppb Monthly 120 blend Ratio - 58%:42%; MARCH 2016 total prod.the first half of the (3/2)89.61 AF; Combined Daily prod. - 8.96 AF month. See SP3 Color, units Monthly 10 \*Chlorine injected after (3/2)SP1, before entering Chlorine Dosage: N/A\* Total Coliform, P or A Monthly Α the greensand filter. SP2 --- Also called Filter Effluent or Site#3. Total Coliform, P or A \*Ammonia added after Monthly Α (3/2)filter effluent Ammonia Dosage: N/A\* HPC,MPN/100 ml Monthly 500 (3/2)Continuous Free CI Res, ppm Average: 4.60; Range: 3.11 - 5.44 SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4. \*CWPF was offline. No Iron, ppb Weekly 300 ND ND ND iron, mangase, color Manganese, ppb Weekly 50 ND ND ND samples taken. Color Weekly 15 ND ND ND Continuous Free and Total CI Res, Free Cl: Average: 2.47; Range: 4.5 - 0.34 ppm Total CI: Average: 3.92; Range: 3.56 - 4.27 Ammonia: Average: 0.59; Range: 0.51 - 0.67 SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection. Phosphate Injection Phosphate Dosage: 2.0 mg/L Continuous Free and Total CI Res, Free Cl: Average: 1.70; Range: 3.3 - 0.15 CI/NH3 Ratio: 5.36/0.19. ppm Total CI: Average: 3.11; Range: 3.22 – 3.00 chloramintaed water Ammonia: Average: 0.58; Range: 0.56 - 0.60 into the Reservoir SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system. SI Goal: 500-750ppm TDS, ppm Weekly 660 640 710 730 SI Goal: Hardness Monthly 280 320 350 180-250ppm Goal: from Weekly 1.30 0.78 1.00 CH4, ppm 1.40 % CH4 Removal: 82% Monthly Odor, units Free and Total CI Res. Continuous Free Cl: Average: 0.74; Range: 0.07 - 1.27 CI/NH3 Ratio: Total CI: Average: 1.96; Range: 1.42 - 2.52 mag 4.36/0.23. Ammonia: Average: 0.45; Range: 0.25 - 0.60 chloraminated water supplied Zone I Headspace of the Cypress Reservoir. <sup>1</sup>CH4 ppmv; using Daily Goal -CH4 Average: 1% (from log) Portable Device LEL CH4 Range: 0% - 3% SP 6 --- MWD Source Feeding CWPF. Also called Zone 2 of the distribution system or Site #6. Monthly TDS, ppm 400 None Monthly Hardness 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 10<sup>th</sup> of the following month.

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

# APPENDIX A

LABORATORY RESULTS



16 March 2016 Clinical Lab No.: 16C0330

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 03/02/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager



Lomita, City ofProjectStandard AnalysisWork Order:16C033024373 Walnut AvenueSub Project:Monthly ComplianceReceived:03/02/16 15:30Lomita CA, 91717Project Manager:Mark AndersenReported:03/16/16

Raw Water Site #1		16C0330-0	01 (Water)		Sample Da	te: 03/02/16	7:45	Sampler: I	O G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	03/02/16	03/03/16	1610450	
E. Coli	SM 9223	A		N/A	P/A	03/02/16	03/03/16	1610450	
General Physical Analyses									
Apparent Color	SM 2120B	10.0	3.0	15	Color Units	03/02/16	03/02/16	1610456	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	740	5.0	1000	mg/L	03/04/16	03/07/16	1610526	
Metals .									
Iron (Fe)	EPA 200.7	180	100	300	ug/L	03/10/16	03/10/16	1611025	
Manganese (Mn)	EPA 200.7	120	20	50	ug/L	03/10/16	03/10/16	1611025	
Filter Effluent (Free Chlorine) Site #2		16C0330-0	02 (Water)		Sample Da	te: 03/02/16	6:47	Sampler: I	O G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Free (Field)	Field	4.44		N/A	mg/L	03/02/16	03/02/16	1610460	
pH (Field)	Field	7.9		N/A	pH Units	03/02/16	03/02/16	1610462	
Temperature (Field)	Field	17		N/A	°C	03/02/16	03/02/16	1610463	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	03/02/16	03/03/16	1610450	
E. Coli	SM 9223	A		N/A	P/A	03/02/16	03/03/16	1610450	
Plate Count	SM9215B	ND	1	500	CFU/ml	03/02/16	03/04/16	1610542	HT-08
Filter Effluent (Total Chlorine) Site #3		16C0330-0	03 (Water)		Sample Da	te: 03/02/16	6:38	Sampler: I	O G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Free (Field)	Field	3.63		N/A	mg/L	03/02/16	03/02/16	1610460	
pH (Field)	Field	7.9		N/A	pH Units	03/02/16	03/02/16	1610462	
Temperature (Field)	Field	18.1		N/A	°C	03/02/16	03/02/16	1610463	
General Physical Analyses									
Apparent Color	SM 2120B	ND	3.0	15	Color Units	03/02/16	03/02/16	1610456	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	03/07/16	03/07/16	1611019	



Lomita, City ofProject:Standard AnalysisWork Order:16C033024373 Walnut AvenueSub Project:Monthly ComplianceReceived:03/02/16 15:30Lomita CA, 91717Project Manager:Mark AndersenReported:03/16/16

Zone #2 Site #6		16C0330-	04 (Water)		Sample Da	ote: 03/02/16	6:50 <b>Sa</b>	mpler: D	G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	1.9		N/A	mg/L	03/02/16	03/02/16	1610461	
pH (Field)	Field	7.9		N/A	pH Units	03/02/16	03/02/16	1610462	
Temperature (Field)	Field	18.9		N/A	°C	03/02/16	03/02/16	1610463	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	400	5.0	1000	mg/L	03/07/16	03/08/16	1611055	
Reservoir Effluent Site #5		16C0330-	05 (Water)		Sample Da	ote: 03/02/16	6:30 <b>Sa</b>	mpler: D	G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Free (Field)	Field	1.32		N/A	mg/L	03/02/16	03/02/16	1610460	
pH (Field)	Field	7.5		N/A	pH Units	03/02/16	03/02/16	1610462	
Temperature (Field)	Field	19		N/A	°C	03/02/16	03/02/16	1610463	
General Physical Analyses									
Odor Threshold	EPA 140.1M	1	1	3	TON	03/02/16	03/02/16	1610456	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	660	5.0	1000	mg/L	03/07/16	03/08/16	1611055	
HT-08 Analysis performed outside of re	ecommended 8 hour hold	time but with	in required 24 ho	ur hold tim	e				

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

# **EDT Transfer Confirmation 1**



Work Order: 16C0330 Report Date: 03/16/2016

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

LOMITA-CITY, WATER DEPT.		User ID: 4TH	Syst	em: 191	.0073
WELL 05	Sta	ation No.: 1910073-	003	Sam	pled: 160302 07:45
COLOR	Result: 10.0	Units: UNITS	Entry No.:	00081	Analyzed: 160302
IRON	Result: 180	Units: UG/L	Entry No.:	01045	Analyzed: 160310
MANGANESE	Result: 120	Units: UG/L	Entry No.:	01055	Analyzed: 160310
TOTAL DISSOLVED SOLIDS	Result: 740	Units: MG/L	Entry No.:	70300	Analyzed: 160307
WELL 05 TREATMENT PLANT EFFLUENT	Sta	ation No.: 1910073-	006	Sam	pled: 160302 06:38
COLOR	Result: ND	Units: UNITS	Entry No.:	00081	Analyzed: 160302
IRON	Result: ND	Units: UG/L	Entry No.:	01045	Analyzed: 160307
MANGANESE	Result: ND	Units: UG/L	Entry No.:	01055	Analyzed: 160307



Analytical Laboratory Service - Since 1964

# **Certificate of Analysis**

Report Date: 04/11/16 09:43
Received Date: 03/04/16 10:55
Turnaround Time: 5 workdays

**Phones:** (909) 825-7693 **Fax:** (909) 825-7696

P.O. #:

Project: 16C0330

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 3/4/2016 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: 6C04005-01 Sampled by: Client	Sample I Sampled	ID: F I: 03/02/1		Site #1/ 160	C0330-01	I			Ма	trix: Water
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	6.1	0.0060	0.050	mg/l	5	RSK-175	3/9/16	3/9/16 15:54	W6C0573	
Lab ID: 6C04005-02	Sample l	ID: F	Reservoir E	ffluent Site	e #5 / 160	0330-05			Ma	trix: Water
Lab ID: 6C04005-02 Sampled by: Client	•	ID: F		iffluent Site	#5 / 160	0330-05			Ma	trix: Water
	•			iffluent Site	e #5 / 160 Dil	00330-05 Method	Prepared	Analyzed	Ma Batch	trix: Water Qualifier





# **Certificate of Analysis**

# **Quality Control Section**

# Dissolved Gases in Water by RSK-175 - Quality Control

Blank (W6C0573-BLK1)					Prepared: 03	/09/16 Ana	alyzed: 03/09	9/16 14:55	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					
LCS (W6C0573-BS1)					Prepared: 03	/09/16 Ana	alyzed: 03/09	9/16 14:35	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.188		mg/l	0.198	95	85-115		
Duplicate (W6C0573-DUP1)	Sc	ource: 6C0400!	5-02		Prepared: 03	/09/16 Ana	alyzed: 03/09	9/16 16:34	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	1.27	0.992	A-01	mg/l				24	20

6C04005 Page 2 of 3



### **Certificate of Analysis**

#### **Case Narrative:**

SUPP report generated to report switched data between samples 6C04005-01 and 6C04006-01 due to client labeling error. BG 4/11/16

#### 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 entiretv.

#### Flags for Data Qualifiers:

A-01 Low recovery due to possible evaporation of target analyte.

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.

Method Detection Limit DL RL Method Reporting Limit MDA Minimum Detectable Activity

NR Not Reportable

6C04005 Page 3 of 3

# SUBCONTRACT ORDER

# Clinical Laboratory of San Bernardino 16C0330



SENDING LABORATORY:	RECEIVING LABORATORY:	·
Clinical Laboratory of San Bernardino 21881 Barton Road Grand Terrace, CA 92313 Phone: 909.825.7693 Fax: 909.825.7696	Weck Lab, Analytical & Environmental Analytical & Environmental Svc 14859 E Clark Ave Industry, CA 91745 Phone :(626) 336-2139 Fax: (626) 336-2634	
Project Manager: Stu Styles		
Please email results to Project Manager: Stu Styles [ ] glaubig@clinical-lab.com [ ] ybarra@clinica		
California EDT transfer those samples with Transfer File requested; log in with Element		
Turn Around Time [ ] 10 Days [√ 5 Days Subcontract Comments:	[ ] Other Days	
Analysis	Comments	
Sample ID: Raw Water Site #1 / 16C0330-01	Sampled: 03/02/16 07:45 PS Code: Water WTX ID:	. •
Methane RSK175  Containers Supplied:  10mL Amber Vial w/ Na2S2O3 (B) 40mL A	Report in mg/L  Amber Vial w/ Na2S2O3 (C)	<del></del>
Sample ID: Reservoir Effluent Site #5 / 16C0330-05	Sampled: 03/02/16 06:30 PS Code: Water WTX ID:	. 1.
Methane RSK175  Containers Supplied: OmL Amber Vial HCl (B)  40mL A	Report in mg/L Amber Vial HCl (C)	
	· · · · · · · · · · · · · · · · · · ·	•.4
Released By O3/03/1	16 14:30 M Cl J 3/4/16 9:00  Beggred By Date / Time 1:0  3.4.16 1055	<del></del>
Released By Date / Time	0:55 3.4.16 1055 Rectived By Date / Time	

	(ICO330 Chain of Custody
,	
•	W
	7

Client			City of Lomita	Sys	stem N	System Number		Anal	Analysis F	Sedu	Requested			* 1	
Address		243	24373 Walnut Avenue		707	4040072				-					
		L	Lomita, CA 91717		<u> </u>	7 7001	_						IVI	7.5	
Phone #			(310) 325-9830	ď	estination	Destination Laboratory	tory				Не		etna		
Fax #			(310) 325-3627	~	(] Clinic	[X] Clinical Laboratory	tory		Iro	T	eteti		ane :		
Project		Sı	Standard Analysis		WQCB	RWQCB Compliance	es			ota	opł			an.	
Sub Project	-	<b>S</b>	Monthly Countions			YES			Ma		nic F	Cole	Odc		-
			miniy computance		Ш	ELAP #					Plat		<u>.</u>		
Comments		Plant operati	Plant operating on Free CL2		7	000		Solid	anese	rm	e Cou		(RS	(DC)	
Sampled by	>		DGM		-	000		ls			ınt		M1/3		
Date	Time	Sam	Sample Idenitification	Matrix	Type	Preserv	FASE Chlorine						·) 	Comments / P.S.	S. Codes
3/2/2016	8745	<b></b>	Raw Water Site #1	ВW	≥	<b>4</b> /2	1/N	×	×			×			
3/2/2016	5hl p		Raw Water Site #1	§ S	_ ≥	2,7	AIN							X	
3/2/2016	0/645	2	Raw Water Site #1	δ	≥	1.7	4/14		×	×					
3/2/2016	2490	Filter Effl	Filter Effluent (Free Chlorine) Site#2	MG	≥	1,7	4.44		-	×	×		<u> </u>	PH7.9 TEMP	17 17
3/2/2016	d638	Filter Efflu	Filter Effluent (Total Chlorine) Site#3	MG	≥	Z	3,63		×			×		PH 7.9 TEMP	18/41
3/2/2016	<b><i><u>acso</u></i></b>		Zone #2 Site #6	MG	=	Z/S	reser.	×					-		181 42
3/2/2016	Ø63\$	Rese	Reservoir Effluent Site #5	DW D	9	N/A	1.32	×					×	PHT.S TEMP	613
3/2/2016	B63B	Rese	Reservoir Effluent Site #5	ρM	=	2,7	132			_			_	×	
Preservative	s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO <sub>3</sub>	3 (4) NH4CI		Matrix:	DW-Drink	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water,	WW-V	laste V	Vater,	SW-St	orm M		GW- Ground Water, A-Air	-Air
(5) H2S	04 (6) Na2SO3	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other	her:			Type-	Type- 1-Routine,	2-Repe	2-Repeat, 3-Replacement, 4-Special	eplac	ement,	4-Spe	cial V	W-Well D-Dist.	
Relin	Relinquished By (Sign)	(Sign)	Print Name / Company			Date / Time	Time			Received	éd By	(Sign)	(	Print Name / Company	Company
Daniel Mateik	CAN'S	<b>\</b>	City of Lomita, CA		3/2/2016		12:45		$\forall$	1/2	7	7		5 Wield	Care
Z)	DK		JUNCONO CUS	8	3.2	2.16/	1530		1/1	JA,	2	$ \  \ \rangle$	1	Amn	+
Comments:							Samples received: (	receiv	ed: K	80	On ice	Z -	Intact F (	t ( ) Custody seals	eals
Shipped Via			[ ] Fed X [ ] Golden State	[ ] [	UPS [	] Client	[ ] Other							Page_1_ of_1_	



23 March 2016 Clinical Lab No.: 16C0932

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 03/09/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProject:Standard AnalysisWork Order:16C093224373 Walnut AvenueSub Project:CWPF Weekly Compliance SamplingReceived:03/09/16 16:20Lomita CA, 91717Project Manager:Mark AndersenReported:03/23/16

Reservoir Effluent Site #5		16C0932-0	01 (Water)		Sample Da	ate: 03/09/1	6 0:00 <b>Sa</b>	mpler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
pH (Field)	Field	7.5		N/A	pH Units	03/09/16	03/09/16	1611526	
Temperature (Field)	Field	19.1		N/A	°C	03/09/16	03/09/16	1611527	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	280	6.6	N/A	mg/L	03/15/16	03/15/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	640	5.0	1000	mg/L	03/11/16	03/14/16	1611614	
Metals									
Calcium (Ca)	EPA 200.7	74	1.0	N/A	mg/L	03/15/16	03/15/16	1611034	
Magnesium (Mg)	EPA 200.7	24	1.0	N/A	mg/L	03/15/16	03/15/16	1611034	
ND Analyte NOT DETECTED at or	above the reporting limi	t							



Analytical Laboratory Service - Since 1964

## **Certificate of Analysis**

Report Date: 03/16/16 12:05 Received Date: 03/11/16 10:00 Turnaround Time: 5 workdays

**Phones:** (909) 825-7693 **Fax:** (909) 825-7696

P.O. #:

Project: 16C0932

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 3/11/2016 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: 6C11022-01	Sample	ID: F	Reservoir E	ffluent Site	#5 / 16	C0932			Ma	atrix: Water
Sampled by: Client	Sample	d: 03/09/1	16 10:00							
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	0.78	0.0012	0.010	mg/l	1	RSK-175	3/15/16	3/15/16 16:06	W6C0932	



# **Certificate of Analysis**

# **Quality Control Section**

## Dissolved Gases in Water by RSK-175 - Quality Control

			<b>,</b>		,				
Batch W6C0932 - RSK-175									
Blank (W6C0932-BLK1)					Prepared: 03	/15/16 Ana	alyzed: 03/1	5/16 15:06	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					
LCS (W6C0932-BS1)					Prepared: 03	/15/16 Ana	alyzed: 03/1	5/16 15:46	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.224		mg/l	0.198	113	85-115		
Duplicate (W6C0932-DUP1)	Sc	ource: 6C1102	2-01		Prepared: 03	/15/16 Ana	alyzed: 03/1	5/16 16:26	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	0 784	0.662		ma/l				17	20

6C11022 Page 2 of 3





### **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** 











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

#### Flags for Data Qualifiers:

(Project Manager)

ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method

Detection Limit (MDL).

Subcontracted analysis, original report enclosed. Sub

DL Method Detection Limit RL Method Reporting Limit MDA Minimum Detectable Activity

NR Not Reportable

6C11022 Page 3 of 3

# SUBCONTRACT ORDER

# Clinical Laboratory of San Bernardino 16C0932

GC11022

SENDING LABORATORY:	RECEIVING LABORATORY:
Clinical Laboratory of San Bernardino	Weck Lab, Analytical & Environmental
21881 Barton Road	Analytical & Environmental Svc 14859 E Clark Ave
Grand Terrace, CA 92313	Industry, CA 91745
Phone: 909.825.7693	Phone :(626) 336-2139
Fax: 909.825.7696	Fax: (626) 336-2634
Project Manager: Stu Styles	
Please email results to Project Manager: Stu S  [ ] glaubig@clinical-lab.com [ ] ybarra@c	· · · · · · · · · · · · · · · · · · ·
California EDT transfer those samples Transfer File requested; log in with Ele	with PS codes provided [ ] Yes [ ] No ement ID only [ ] Yes [ ] No
Turn Around Time [ ] 10 Days [√] 5 Subcontract Comments:	Days [ ] Other Days
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 16C093	2-01 Sampled: 03/09/16 10:00 PS Code: Water WTX ID:
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (B) 40	ml Amber Vial (C)

29 É

Released By Date / Time Received By Date / Time Date / Time

Clinical Laboratory of San Bernardino, Inc.

Client	City of Lomita	Sys	System Number	ımber	A	alysis F	Analysis Requested	pe			
Address	24373 Walnut Avenue		107	0072							
	Lomita, CA 91717	T	20	1910013				\1			
Phone #	(310) 325-9830	ã	estinatio	Destination Laboratory				eth:			
Fax#	(310) 325-3627	d	K] Clinica	[X] Clinical Laboratory		1002					
Project	Standard Analysis	4	RWOCE	RWQCB Compliance	1		C				
Sub Project	CWPF Weekly Compliance Sampling		급	No ELAP#	ro-e	21544	olor	dness			
Comments			•			ones.		RSK			
Sampled by	DGM	1		990				175			
Date Time	e Sample Idenitification	Matrix	Турс	Present Chi	Total Chlorine		<u>'</u>			Comments / P.S. Codes	
710000	5 T T T T T T T T T T T T T T T T T T T								Ī	- 774477	PLANT OFFITME
0107/16	riter chiuent Site #3	*	Ż.	<u> </u>	*	<b>,</b>	*				war
3/9/2016	Reservoir Effluent Site #5	NG.	<u>%1</u>	N/N							-
3/9/2016	Reservoir Effluent Site #5	ΜG	1	151							
	Reservoir Effluent Site #5	1	=	7.7				,	PH	PH = 7.51 LMP = 1911	
Preservatives: (1) N. (5) H2SO4 (6) N.	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na <sub>2</sub> SSO3 (7) Cold (8) Other:		Matrix:	DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground W Typo- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.	Vater, WM tine, 2-Re	-Wasto V	Vater, SW eplacemo	-Storm Wa	iter, GW- Gi	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.	
Retinguished By (Sign)	1 By (Sign) Print Name / Company			Dute / Time			Received	Received By (SIRM)		Print Nume / Company	
Daniel Mateik Somments:	design City of Lomita	- Cara	3/9/2016		Samples received Tree		On ic		ntact (	K IN. Custody seals	
Shipped Via	Fed X       Golden State	I I UPS	Client	ent   Other	<i>y</i>			0,0	Page	Page_1_ of_1_	



25 March 2016 Clinical Lab No.: 16C1544

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 03/17/16 . 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,

Stu Styles

Client Services Manager



**Lomita, City of** 24373 Walnut Avenue Lomita CA, 91717 Project: Standard Analysis

Work Order: 16C1544

Sub Project: CWPF Weekly Compliance Sampling

Received: 03/17/16 17:05 Reported: 03/25/16

 $03/17/16 \ 10:10$ Filter Effluent Site #3 16C1544-01 (Water) Sample Date: Sampler: Analyte Method Result Rep. Limit MCL Units Prepared Analyzed Batch Qualifier Field Analyses Field 03/17/16 03/17/16 1612492 Cl Res Total (Field) 1.46 N/A mg/L pH (Field) Field 7.81 N/A pH Units 03/17/16 03/17/16 1612493 Field 23.1 °C 03/17/16 03/18/16 1612494 Temperature (Field) N/A**General Physical Analyses** SM 2120B **Apparent Color** 7.5 3.0 03/17/16 03/17/16 1612525 15 Color Units Metals EPA 200.7 ND 03/22/16 03/22/16 1613011 Iron (Fe) 100 300 ug/L EPA 200.7 ND 03/22/16 03/22/16 1613011 Manganese (Mn) 20 50 ug/L ND Analyte NOT DETECTED at or above the reporting limit

Project Manager: Mark Andersen

# **EDT Transfer Confirmation 1**



Entry No.: 01055 Analyzed: 160322

Work Order: 16C1544
Report Date: 03/25/2016

MANGANESE

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

Result: ND

LOMITA-CITY, WATER DEPT.

WELL 05 TREATMENT PLANT EFFLUENT

COLOR

Result: 7.5 Units: UNITS Entry No.: 00081 Analyzed: 160317 IRON

System: 1910073

Sampled: 160317 10:10

Result: 7.5 Units: UNITS Entry No.: 00081 Analyzed: 160317 IRON

Result: ND Units: UG/L Entry No.: 01045 Analyzed: 160322

Units: UG/L

Printed: 03/25/2016 10:09:18 AM Results of 16C1544 FINAL WRITEON 1910073-006

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

Chain of Custody	42/0				***********						Codes			Jo / 25							pany			S	
$\mathcal{O}$											Comments / P.S. Codes		PH = TEMP =	181					SW- Ground Water, A-Air	V-Well D- Dist.	Print Name / Company	187	) kg (	t ( ) Custody seals	ر
12 ft		Analysis Requested		М		ane	(W	rdness ater) ( olor	RSF				×						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.	Received By (Sign)	M Com	Jan J	d: ( ) On ice ( ) Intact ( ) Temn	
HHS1 73/	•		7.2	2	oratory		I	ron			Total		1.46 x x	,					rinking Water, WW-Waste	oe- 1-Routine, 2-Repeat, 3	Date / Time	12:30		Samples received: (	7
1.C.		System Number	10400	C/00161	Destination Laboratory	[X] Clinical Laboratory	RWQCB Compliance	No E AP#		1088	Matrix Type Preserv		DW 1W N/A						Matrix: DW-D			3/17/2016		2/11/15	
Clinical Laboratory of San Bernardino, Inc.		City of Lomita	24373 Walnut Avenue	Lomita, CA 91717	(310) 325-9830	(310) 325-3627	Standard Analysis	CWPF Weekly Compliance Sampling		DGM	Sample Idenitification	· ·	ite #3						VO3 (4) NH4CI		Print Name / Company	City of Lomita		SCSB	
ical Laboratory			24:	I			S	CWPF We			Time	- 1	メダ Filter Effiluent Site #3						Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO <sub>3</sub> (4) NH4CI	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:	Relinguished By (Sign)	65.	Namen	Comments:	
Cfin		Client	Address		Phone #	Fax#	Project	Sub Project	Comments	Sampled by	Date		3/1 / 0107// 1/S						Preservatives: (	(5) H2SO4	Retinguis	Daniel Mateik	Justin	Comments:	

"Your Water and Wastewater Analysis Solution"



01 April 2016 Clinical Lab No.: 16C1480

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 03/16/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager



Lomita, City ofProjectStandard AnalysisWork Order:16C148024373 Walnut AvenueSub Project:CWPF Weekly Compliance SamplingReceived:03/16/16 15:30Lomita CA, 91717Project Manager:Mark AndersenReported:04/01/16

Reservoir Effluent Site #5		16C1480-0	01 (Water)		Sample Da	ote: 03/16/16	6 0:00 <b>Sa</b>	mpler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	320	6.6	N/A	mg/L	03/21/16	03/21/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	710	5.0	1000	mg/L	03/17/16	03/18/16	1612428	
Metals									
Calcium (Ca)	EPA 200.7	84	1.0	N/A	mg/L	03/21/16	03/21/16	1613010	
Magnesium (Mg)	EPA 200.7	27	1.0	N/A	mg/L	03/21/16	03/21/16	1613010	
ND Analyte NOT DETECTED at or	r above the reporting limi	t							



Analytical Laboratory Service - Since 1964

# **Certificate of Analysis**

Report Date: 03/25/16 14:46 Received Date: 03/18/16 10:25 Turnaround Time: 5 workdays

**Phones:** (909) 825-7693 **Fax:** (909) 825-7696

P.O. #:

**Project**: 16C1480

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 3/18/2016 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: 6C18028-01	Sample l	ID: I	Reservoir E	ffluent Site	#5/ 160	C1480-01			Ma	atrix: Water
Sampled by: Client	Sampled	I: 03/16/	16 00:00							
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	1.0		0.010	mg/l	1	RSK-175	3/22/16	3/22/16 17:37	W6C1425	



# **Certificate of Analysis**

# **Quality Control Section**

## Dissolved Gases in Water by RSK-175 - Quality Control

Blank (W6C1425-BLK1)					Prepared: 03	/22/16 Ana	alyzed: 03/2	2/16 16:37	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					
LCS (W6C1425-BS1)					Prepared: 03	/22/16 Ana	alyzed: 03/2	2/16 17:17	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.176		mg/l	0.198	89	85-115		
LCS Dup (W6C1425-BSD1)					Prepared: 03	/22/16 Ana	alyzed: 03/2	2/16 16:17	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.188		mg/l	0.198	95	85-115	6	20
Duplicate (W6C1425-DUP1)	Sou	urce: 6C1802	8-01		Prepared: 03	/22/16 Ana	alyzed: 03/2	2/16 17:56	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	1.05	0.851	QR-03	mg/l				21	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













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:

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC

batch accepted based on LCS and/or LCSD recovery and/or RPD values.

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

6C18028 Page 3 of 3

# SUBCONTRACT ORDER

# Clinical Laboratory of San Bernardino

16C1480

6018628

SENDING LABORATORY:	RECEIVING LABORATORY:
Clinical Laboratory of San Bernardino	Weck Lab, Analytical & Environmental
21881 Barton Road	Analytical & Environmental Svc 14859 E Clark Ave
Grand Terrace, CA 92313	Industry, CA 91745
Phone: 909.825.7693	Phone :(626) 336-2139
Fax: 909.825.7696	Fax: (626) 336-2634
Project Manager: Stu Styles	
Please email results to Project Manager: Stu Styles  [ ] glaubig@clinical-lab.com [ ] ybarra@clinical-lab.com [v]	styles@clinical-lab.com [ ] nelson@clinical-lab.com
California EDT transfer those samples with PS codes provi Transfer File requested; log in with Element ID only	ded []Yes [✔No []Yes [႔No
Turn Around Time [] 10 Days [ 5 Days [] Other _ Subcontract Comments:	
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 16C1480-01 Sample Water	led: 03/16/16 00:00 PS Code: WTX ID:
Methane RSK175	Report in mg/L
ontainers Supplied:	
0ml Amber Vial (B) 40ml Amber Vial (C)	· · · · · · · · · · · · · · · · · · ·

Released By Date / Time Received By Date / Time 2.4/c

Released By Date / Time Received By Date / Time 2.4/c

Released By Date / Time Received By Date / Time

1601480 Chain of Custody

Clinical Laboratory of San Bernardino, Inc.

Client		City of Lomita	Sy	System N	Number		Analy	<b>Analysis Requested</b>	dnest	pa							
Address		24373 Walnut Avenue		2	10073					_							
		Lomita, CA 91717		20	ر ا				141	M							
Phone #		(310) 325-9830	Q	estínatia	Destination Laboratory	tory		1		eth							
Fax #		(310) 325-3627		() Clinic	[X] Clinical Laboratory	tory		Γota									
Project		Standard Analysis		RWOCE	RWQCB Compliance	ce			<u> </u>								
Sub Project		CWPF Weekly Compliance Sampling	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		No ELAP#		ganese ron	solved So	olor	dness ater) (l							
Comments				7	000			olids	~	RSK							
Sampled by		DGM	1	_	088					175							
Date	Time	Sample Identification	Matrix	lype	Preserv	Total Chlorine			,			Comme	Comments / P.S. Co	Codes			,
3/16/2016		Eilter Effluent Site #3	MO	A	Z		A		*			31 = Ha	TEMP=-	J. A. K.	rorr.	OFFLING	ſΰ
3/16/2016		Reservoir Effluent Site #5	) M	≥	N/A			×									
3/16/2016		Reservoir Effluent Site #5	DW	NI MI	HCL					×							
		Reservoir Effluent Site #5	DW	1 W	N/A					×		PH = Ti	TEMP =				
-																	
							+	+	_	+	$\pm$						
	-						+		+		$\perp$						
							H			$\mid \cdot \mid$						_	-
Preservatives:	: (1) Na	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI		Matrix:	DW-Drink	ting Water,	WW-Wa	nste Wat	ter, SW	-Storm	Water, (	DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air Time, 1-Routine, 2-Reneat, 3-Renlacement 4-Special W.Well, D. Dist	Vater, A-Air				
O62H (6)	ž (o)				· ype-	-Noutine, .	-vehea	15, 9-17 cp	Jaceme	5111, 4-0	Decial 1	r-weil D-Dist			900000000000000000000000000000000000000		_; ;;;
Retingu	wished	Relinquished By (Sign) Print Name / Company			Date / Time	Тіте	1	Re	ecdived	By (Sign)	(u)	Prim N.	Print Name / Compan,	any			
Daniel MatejiK		City of Lomita		3/16/20	016 / /2	2.15	X	1		3		TIM	(sevol 4	S. S.			
	Q	1 Iluceua CLSB	~	3.16		8:50	7	A	7	h	J	K. M. O	- 2	,			
Comments:					<u> </u>	Samples receiveds. Tè	eceive. T			ŝi Ž	Hutact F A	$\int_{0}^{\infty}$	ustody seals				
Shipped Via		Fed X     Golden State	UPS	$\Box$	lient [	Other					,	Page_1_of_	1_				
																	]

### Clinical Laboratory of San Bernardino, Inc.



07 April 2016 Clinical Lab No.: 16C2401

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 03/30/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes

## Clinical Laboratory of San Bernardino, Inc.



Lomita, City of Project: Standard Analysis Work Order: Sub Project: CWPF Weekly Compliance Sampling Received: 03/30/16 15:30 24373 Walnut Avenue Reported: 04/07/16

Lomita CA, 91717 Project Manager: Mark Andersen

Filter Effluent Site #3		16C2401-0	01 (Water)		Sample Da	te: 03/30/10	6 10:10 <b>Sa</b>	mpler: Do	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.1		N/A	mg/L	03/30/16	03/30/16	1614375	
pH (Field)	Field	7		N/A	pH Units	03/30/16	03/30/16	1614376	
Temperature (Field)	Field	19.3		N/A	°C	03/30/16	03/30/16	1614378	
General Physical Analyses									
Apparent Color	SM 2120B	ND	3.0	15	Color Units	03/30/16	03/30/16	1614342	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	04/01/16	04/01/16	1614411	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	04/01/16	04/01/16	1614411	
Reservoir Effluent Site #5		16C2401-0	02 (Water)		Sample Da	te: 03/30/10	5 10:15 <b>Sa</b>	mpler: Do	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
<u>Field Analyses</u> Cl Res Total (Field)	Field	2.88		N/A	mg/L	03/30/16	03/30/16	1614375	
Field Analyses  Cl Res Total (Field)  pH (Field)	Field Field	2.88 7.25		N/A N/A	mg/L pH Units	03/30/16 03/30/16	03/30/16 03/30/16	1614375 1614376	
Cl Res Total (Field) pH (Field)									
Cl Res Total (Field)	Field	7.25		N/A	pH Units	03/30/16	03/30/16	1614376	
Cl Res Total (Field) pH (Field) Temperature (Field)	Field	7.25	6.6	N/A	pH Units	03/30/16	03/30/16	1614376	
Cl Res Total (Field) pH (Field) Temperature (Field) General Chemical Analyses	Field Field	7.25 21.5	6.6 5.0	N/A N/A	pH Units °C	03/30/16 03/30/16	03/30/16 03/30/16	1614376 1614378	
Cl Res Total (Field) pH (Field) Temperature (Field) General Chemical Analyses Hardness, Total (as CaCO3)	Field Field Calculated	7.25 21.5		N/A N/A	pH Units °C  mg/L	03/30/16 03/30/16 04/04/16	03/30/16 03/30/16 04/05/16	1614376 1614378 [CALC]	
Cl Res Total (Field) pH (Field) Temperature (Field) General Chemical Analyses Hardness, Total (as CaCO3) Total Filterable Residue/TDS	Field Field Calculated	7.25 21.5		N/A N/A	pH Units °C  mg/L	03/30/16 03/30/16 04/04/16	03/30/16 03/30/16 04/05/16	1614376 1614378 [CALC]	

## Clinical Laboratory of San Bernardino, Inc.

#### **EDT Transfer Confirmation 1**



Work Order: 16C2401 Report Date: 04/07/2016

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

System: 1910073 LOMITA-CITY, WATER DEPT. User ID: 4TH WELL 05 TREATMENT PLANT EFFLUENT Station No.: 1910073-006 Sampled: 160330 10:10 Units: UNITS Entry No.: 00081 Analyzed: 160330 Result: ND Entry No.: 01045 Analyzed: 160401 IRON Units: UG/L Result: ND MANGANESE Entry No.: 01055 Analyzed: 160401 Result: ND Units: UG/L



Analytical Laboratory Service - Since 1964

#### **Certificate of Analysis**

Report Date: 04/07/16 17:52 Received Date: 04/01/16 09:47 Turnaround Time: 5 workdays

**Phones:** (909) 825-7693 **Fax:** (909) 825-7696

P.O. #:

**Project:** 16C2401

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 4/1/2016 with the Chain of Custody document. The samples were received in good condition, at 5.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6D01013-01	Sample	ID: R	eservoir E	ffluent Site	#5/ 160	2401-02			Ma	trix: Water
Sampled by: Client	Sample	d: 03/30/1	6 10:15							
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane	1.4	0.0012	0.010	ma/l	1	RSK-175	4/5/16	4/5/16 18:58	W6D0217	



Analytical Laboratory Service - Since 1964

#### **Certificate of Analysis**

#### **Quality Control Section**

#### Dissolved Gases in Water by RSK-175 - Quality Control

Blank (W6D0217-BLK1)					Prepared: 04	/05/16 Ana	alyzed: 04/0!	5/16 17:59	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		ND		mg/l					
LCS (W6D0217-BS1)					Prepared: 04	/05/16 Ana	alyzed: 04/0!	5/16 18:39	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane		0.205		mg/l	0.198	104	85-115		
Duplicate (W6D0217-DUP1)	s	ource: 6D0101	3-01		Prepared: 04	/05/16 Ana	alyzed: 04/0!	5/16 19:18	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane	1.40	1.60		mg/l	•		•	14	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** 









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

Contact: Brandon Gee (Project Manager)

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

#### 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).

Subcontracted analysis, original report enclosed. Sub

DL Method Detection Limit RL Method Reporting Limit MDA Minimum Detectable Activity

NR Not Reportable

6D01013 Page 3 of 3

#### SUBCONTRACT ORDER

## Clinical Laboratory of San Bernardino

16C2401

**RECEIVING LABORATORY:** 

6001013

Clinical Laboratory of San Bernardino 21881 Barton Road Grand Terrace, CA 92313 Phone: 909.825.7693 Fax: 909.825.7696 Project Manager: Stu Styles	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-la  California EDT transfer those samples with PS  Transfer File requested; log in with Element ID	codes provided [ ] Yes [ ] No
Turn Around Time [ ] 10 Days [√] 5 Days	OtherDays
Subcontract Comments:	
Analysis	Comments
	Comments Sampled: 03/30/16 10:15 PS Code: Water WTX ID:
Analysis	Sampled: 03/30/16 10:15 PS Code:
Analysis Sample ID: Reservoir Effluent Site #5 / 16C2401-02	Sampled: 03/30/16 10:15 PS Code: Water WTX ID:

U.1.16 9

Date / Time

Client	City of Lomita	S	Vstem	System Number		Analysis	sis Re	Reduested	Ped				
Address	24373 Walnut Avenue	K.	•			_	<u> </u>		, ,		_		
	Lomita, CA 91717		13	1910073					N				
Phone #	(310) 325-9830		Destinat	Destination Laboratory	itony				1eth				
Fax#	(310) 325-3627		[X] Clini	[X] Clinical Laboratory	itory		Tota		ane				
Project	Standard Analysis		RWQCE	RWQCB Compliance	, a21			C		TT.			
Sub Project	CWPF Weekly Compliance Sampling	10000	<u></u>	No ELAP#		ron	solved S	olor	rdness ater) (				
Comments			`	000			Solids						
Sampled by	DGM			1088			<b>i</b>		 {175				
Date	Time Sample Idenitification	Matrix	. Type	Preserv	Total				 5)			Comments / P.S. Codes	o
													,
3/30/2016	10/0 Filter Effluent Site #3	DW	1 W	V/N	3.10	x		х			PH	1=7. STEMP = 19, X	
-	- Ix								H				
╅	- [,	DW	1W	N/A	2.88		×						
3/30/2016	IQ15 Reservoir Effluent Site #5	DW	<u>*</u>	HCL,					×				
7	Reservoir Effluent Site #5	MG	<u>*</u>	N/N					×		PH	PH = 2/3TEMP = 2/2	Τ,
									-		-	200	1
									+		-		T
													T
										-			
							$\prod$		H				
						_	$\perp$		+				
Preservatives:	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI		Matrix	: DW-Drink	ting Water,	WW-Wa	ste Wa	ter, SM	/-Storn	η Water.	GW-G	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GY- Ground Water, A-Air	T
(5) H2SO4	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:			Type-	Type- 1-Routine, 2-Repeat, 3-Replacement,	-Repeat	, 3-Rep	Jacem	ent, 4-	Special	W-Well	4-Special W-Well D- Dist.	
Relingui	Relinquished By (Sign) Print Name / Company	any		Daty / Time	Тіте		<b>*</b>	ceinge	S	(Sign)		Print Name / Compan	
Daniel Mateik	City of Lomita	1	3/30/2016	1	01;2	H	1	Z	7/	1	1	7/00mx	<u> </u>
	19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	2.3	1910	2,30	7	A	1			با	1 oner 1000	m
Confiments:		)	, ,		Samples received:	eceived T			18 N 32	Infact	ر الا ت	) Custody seals	
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"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

	n torres		MAR	CH 2016	
DATE	DAY	TIME	METHAN	E HANDHELD	COMMENTS
3/1/2016	Т		CH4- 1%	Oxy- 20.1%	
3/2/2016	W		CH4- 0%	Oxy- 20.9%	
3/3/2016	TH		CH4- 2%	Oxy- 20.0%	
3/4/2016	F		CH4- 2%	Oxy- 20.0%	
3/5/2016	SA				
3/6/2016	SU				
3/7/2016	М		CH4- 0%	Oxy- 20.9%	
3/8/2016	Т		CH4- 0%	Oxy- 20.9%	
3/9/2016	W		CH4- 0%	Oxy- 20.9%	
3/10/2016	TH		CH4- 3%	Oxy- 19.9%	
3/11/2016	F		CH4- 0%	Oxy- 20.9%	
3/12/2016	SA				
3/13/2016	SU				
3/14/2016	М		CH4- 0%	Oxy- 20.9%	
3/15/2016	Т		CH4- 0%	Oxy- 20.9%	
3/16/2016	W		CH4- 0%	Oxy- 20.9%	
3/17/2016	TH		CH4- 0%	Oxy- 20.9%	
3/18/2016	F		CH4- 0%	Oxy- 20.9%	
3/19/2016	SA				
3/20/2016	SU				
3/21/2016	M		CH4- 0%	Oxy- 20.9%	
3/22/2016	Т		CH4- 0%	Oxy- 20.9%	
3/23/2016	W		CH4- 1%	Oxy- 20.9%	
3/24/2016	TH		CH4- 2%	Oxy- 20.1%	
3/25/2016	F		CH4- 0%	Oxy- 20.9%	
3/26/2016	SA		CH4- 1%	20.9%	
3/27/2016	SU				
3/28/2016	М		CH4- 0%	Oxy- 20.8%	
3/29/2016	Т		CH4- 0%	Oxy- 20.9%	
3/30/2016	W		CH4- 2%	Oxy- 20.1%	
3/31/2016	TH		CH4- 1%	Oxy- 20.9%	

ND- Non Detect

CH4- Methane

Oxy- Oxygen

Weekend/Day Off/Holiday- Red

#### APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

# **MARCH 2016** 'MONTHLY NITRIFICATION MONITORING SUMMARY REPORT CITY OF LOMITA, System No. 1910073 --- Month, Year:

March   Marc		sample I.D	Location	sample Date (and Time)	дше ј	Н	l otal Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform <sup>2</sup>	HPC	7019	Comments
1948 W. 2525" St. Noorthold No.   15		Units/Others →		MM/DD/YYYY Xx:xx an/pm	၁့		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml	٥	
245625 Monta NA         252016 NA         16.5         7.5          10.9         ND         ND         A         ND         17           245625 Monta NA         22020 Janus St         22020 Janus St          1.08         ND         ND         ND         A         ND         1.0           25025 Dawn St         22020 Janus St          1.0         1.0         ND         ND         A         ND         1.0           25025 Dawn St         22020 Janus St         1.0         1.0         1.0         ND         ND         ND         A         ND         1.0           25025 Dawn St         22020 Janus St         1.0         1.0         ND         ND <td></td> <td>S13-003</td> <td>1948 W. 252<sup>nd</sup> St</td> <td>3/2/2016</td> <td>18.0</td> <td>7.5</td> <td>1</td> <td>1.3</td> <td>ND</td> <td>ND</td> <td>ND</td> <td>ND</td> <td>A</td> <td>ND</td> <td>1</td> <td>We///MWD Blend</td>		S13-003	1948 W. 252 <sup>nd</sup> St	3/2/2016	18.0	7.5	1	1.3	ND	ND	ND	ND	A	ND	1	We///MWD Blend
2021 Permissylvenie AL 92201G         1920         70         -         105         ND         ND         ND         A         ND         1           PGSS Deavolf         1920         70         -         1078         ND         ND         ND         ND         A         ND         17           PGSS Deavolf         1920         1920         -         143         ND         ND         ND         ND         A         ND         17           PGSS 140         32021G         181         75         120         -         100         ND		S13-004	24632 S Moon Av	3/2/2016	18.5	7.5	-	6.0	ND	QN	QV	ND	A	ND	1	We///MWD Blend
Page Denny St.   Standard St		S13-008	25417 Pennsylvania Av	3/2/2016	19.0	7.0	1	1.08	ND	GN	QN	ND	A	QN	1	We///MWD Blend
1912-W.   2527-16   1911   755   1-56   1-43   NWD		A	2052 Dawn St	3/2/2016	19.2	7.0	1	0.76	ON	GN	QN	ND	A	ND	1	We///MWD Blend
1917 W. 1556 P. 1917 W. 1917			Reservoir	3/2/2016	19.1	7.5	1	1.43	ND	QN	ND	ND	A	ND	1	We///MWD Blend
1949 W 252° St Noort W		13-1	1912 W. 259" PI	3/2/2016	18.1	7.5	1.96	,	ND	QN	ND	0.67	A	ND	2	MWD Only
1949 W, 252 <sup>6</sup> SK   292016   1810   729   1.9     NUD   NUD		13-2	26314 S Monte Vta.	3/2/2016	17.6	7.0	2.00	-	ON	QN	QN	0.64	A	ND	ı cr	MWD Only
1948 W. 25g <sup>28</sup> St   3992016   180   179     0.66   ND   ND   ND   ND   ND   ND   ND		13-5	2500 PCH	3/2/2016	18.1	7.0	1.9		ND	ND	ND	0.64	A	ND	2	MWD Only
26622 Si Moon Av.         3982016         19.3         7.9         0.62         NO         NO         NO         A         A         17         17           256417 Pennsylvania Av. 3982016         19.3         7.9         .         0.61         ND         ND         ND         A         ND         17           2052 Lebent St.         3982016         19.3         7.9         .         0.61         ND         ND         ND         ND         A         ND         17           2052 Lebent St.         3982016         18.0         18.0         1.2         0.65         ND         ND         ND         ND         ND         ND         ND         17           2837 Lebent St.         18.0 <td< td=""><td></td><td>\$13-003</td><td>1948 W 252nd St</td><td>3/9/2016</td><td>18.0</td><td>7.0</td><td></td><td>90</td><td>ON.</td><td>CV.</td><td></td><td>Ş</td><td>&lt;</td><td></td><td></td><td></td></td<>		\$13-003	1948 W 252nd St	3/9/2016	18.0	7.0		90	ON.	CV.		Ş	<			
26417 Pennsylvania AJ 392016         19.1         7.9         - 0.61         ND         ND         ND         AJ         ND         17           1052 Deam SI         392016         18.1         7.9         - 0.647         ND         ND         ND         A         ND         17           Reservor         392016         18.1         7.9         - 0.647         ND         ND         ND         A         ND         17           2500 PCH         392016         18.0         8.0         1.72         - 0.64         ND         ND         ND         A         ND         1           2500 PCH         392016         18.0         8.1         1.07         - 0.04         ND         ND         ND         A         ND         1           2500 PCH         392016         18.0         8.1         - 1.19         ND         ND         ND         A         ND         1           2500 PCH         392016         18.0         8.1         - 1.19         ND         ND         ND         A         ND         1           2502 Deam ST         31202016         18.0         8.1         - 1.18         ND         ND         ND         ND		\$13-004	24632 S Moon Av	3/9/2016	19.3	7.9		0.62	200	S S	S	S S	4 4	ON Ct		We///MWD Blend
2002 Deam St   399/2016   19.3   7.9   7.9   0.55   ND   ND   ND   ND   ND   ND   ND		\$13-008	25417 Pennsylvania Av	3/9/2016	19.1	7.9		0.61	QN	CN	S	2 8	( 4	NO	- 7	Weil/MWD Blend
Reservoir         3922016         191         7.2         0.65         ND         ND         ND         A         ND         17           2500 PCH         3922016         184         8.1         2.02          ND         ND         ND         A         ND         12           2500 PCH         3922016         184         8.1         2.02          ND         ND         ND         A         ND         12           2500 PCH         3922016         180         8.0          1.16         ND         ND         ND         A         ND         1           24632 S Moon Value Value         31/62016         180         8.0          1.16         ND         ND         ND         A         ND         1           2463 S Moon Value Value         31/62016         180         8.0          1.16         ND         ND         ND         A         ND         1           2560 PCH         31/62016         181         8.1         1.91          1.16         ND	. –	A	2052 Dawn St	3/9/2016	19.3	7.9	,	0.47	ND	QN	ND	N	<	S S		We///M/// Blend
1912 W. 255 <sup>ll</sup> P.I.         392016         18.0         8.0         17.2         .         ND         ND         ND         A         ND         2           2500 PCH         392016         11.0         8.2         1.16         .         ND         ND         ND         A         ND         2           2500 PCH         392016         11.0         8.2         1.16         .         ND         ND         ND         A         ND         2           24632 S.Moon Av         3162016         18.5         8.1         -         1.19         ND         ND         ND         A         ND         1           24632 S.Moon Av         3162016         18.5         8.1         -         1.19         ND         ND         ND         A         ND         1           2562 Deam SI         3162016         18.0         8.1         -         1.19         ND         N	. 7		Reservoir	3/9/2016	19.1	7.9		0.55	ND	QN	ND	QV	Y V	GN GN	- 1	We///MWD Blend
2563 L S Monte Vita, 39/2016         184         81         2.07         ND         ND         ND         A         ND         2           2560 PCH         39/2016         17.0         82         1.68         -         1.19         ND         ND         ND         A         ND         2           2560 PCH         3162216         18.0         8.1         -         1.19         ND         ND         ND         A         ND         1           2561 Pennsylvania AV         3162216         18.0         8.1         -         1.19         ND         ND         ND         A         ND         1         1         1         1         1         ND         ND         ND         ND         ND         ND         ND         1		13-1	1912 W. 259th PI	3/9/2016	18.0	8.0	1.72	-	ND	ND	ND	QN	A	ND		MWD Only
1950 PCH		13-2	26314 S Monte Vta.	3/9/2016	18.4	8.1	2.07	-	ND	QN	ND	ND	A	ND	1 00	MWD Only
1948 W. 252 <sup>M</sup> St         3162016         18.0         81         -         1.16         ND         ND         ND         ND         A         ND         1		13-5	2500 PCH	3/9/2016	17.0	8.2	1.68	1	ND	QN	ON	ND	Ą	QN	2	MWD Only
24632 S Moon Av         3162016         185         8.7          1.19         ND		\$13-003	1948 W. 252 <sup>nd</sup> St	3/16/2016	18.0	8.1		116	CN.	CN	C/V	Ş		, and the second	,	
26417 Pennsylvania Av         310 column         190         8.0          0.44         ND         ND         ND         A         3         1           2020 Dewn St         31/302016         19.0         8.1          1.85         ND         ND         ND         A         ND         1           2020 Dewn St         31/302016         18.1         7.8          1.85         ND         ND         ND         A         ND         1           26314 S Monte Vta.         31/302016         18.1         8.1         1.91          ND         ND         ND         A         ND         2           2500 PCH         31/302016         18.0         8.1         1.91          ND         ND         ND         A         ND         1           2500 PCH         31/302016         18.0         8.1         1.91          ND         ND         ND         A         ND         ND         A         ND		S13-004	24632 S Moon Av	3/16/2016	18.5	8.1		1.19	QN	QN	QN	QV.	( A	27	- 1	Well/MWD Blend
2632 Davin St   3162016   19.0   8.1     1.65   ND   ND   ND   ND   ND   ND   1   ND   1   ND   ND		S13-008	25417 Pennsylvania Av	3/16/2016	19.0	8.0		0.44	ND	QN	ND	ND	A	3	1	We///WWD Blend
Hesservoir   State-Script   State-		A	2052 Dawn St	3/16/2016	19.0	8.1	-	1.85	ND	GN	ND	ND	Ą	QN	1	We///MWD Blend
1912 W. 2597 PI   3762016   18.0   8.1   1.91     ND   ND   ND   ND   ND   ND   S   ND   S   S   S   S   S   S   S   S   S		707	Reservoir	3/16/2016	19.1	7.8		1.62	ND	ND	ON	ND	A	ON	1	We///MWD Blend
26314 S MONITE VTa.   378/2016   18.0   8.1   1.99   ND   ND   ND   ND   ND   ND   ND		13-7	1912 W. 259" FI	3/16/2016	18.1	0.7	1.91	1	QN	ND	ND	ND	A	QN	2	MWD Only
1930 TCM         1908 1096         1909 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096         1906 1096 <th< td=""><td></td><td>13-2</td><td>20314 3 MOME VIA.</td><td>3/10/2010</td><td>10.0</td><td>0.7</td><td>2.09</td><td>1</td><td>ON S.</td><td>QN :</td><td>ND</td><td>QN</td><td>A</td><td>QN</td><td>က</td><td>MWD Only</td></th<>		13-2	20314 3 MOME VIA.	3/10/2010	10.0	0.7	2.09	1	ON S.	QN :	ND	QN	A	QN	က	MWD Only
903         1948 W. 252°d St         3232016         19.0         7.9         0.96          ND         ND         ND         A         ND         1           204 24632 S Moon Av         3232016         18.9         7.8         0.77          ND         ND         ND         A         10         1           205 Dawn St         3232016         18.9         7.8         0.69          ND         ND         ND         A         40         1           205 Dawn St         3232016         18.9         7.9         0.69          ND         ND         ND         A         40         1           Reservoir         3232016         18.0         2.9         1.16          ND         ND         ND         A         ND         1         1         1         1         1         1         ND         ND         ND         ND         A         ND         1 <t< td=""><td></td><td>13-5</td><td>7300 FCH</td><td>3/10/2010</td><td>18.0</td><td>8.1</td><td>1.9</td><td></td><td>ON</td><td>ND</td><td>ND</td><td>ND</td><td>A</td><td>QN</td><td>2</td><td>MWD Only</td></t<>		13-5	7300 FCH	3/10/2010	18.0	8.1	1.9		ON	ND	ND	ND	A	QN	2	MWD Only
204         24632 S Moon Av         323/2016         18.9         7.8         0.77         -         ND         ND         ND         ND         7         1		\$13-003	1948 W. 252 <sup>nd</sup> St	3/23/2016	19.0	7.9	96.0		QN	QN	QN	CN	Δ	CN	-	Pacia CIVIVIVIONI
25417 Pennsylvania Av         3/23/2016         18.9         7.9         0.69         -         ND         ND         ND         A         40         1           2052 Dawn St         3/23/2016         18.0         1.63         -         ND         ND         ND         A         10         1           Reservoir         3/23/2016         18.0         1.63         -         0.65         ND         ND         A         ND         1		S13-004	24632 S Moon Av	3/23/2016	18.9	7.8	0.77		QN	QN	QN	N S	. A	110	-	We///MWD Blend
2052 Dawn St         3/23/2016         18.0         8.0         1.63         -         ND         ND         ND         A         12         1           Reservoir         3/23/2016         18.0         1.16         -         0.65         ND         ND         A         ND         1           1912 W. 259" Pl         3/23/2016         18.5         8.1         2.10         -         ND         ND         ND         A         ND         1           2601 Pcl         3/23/2016         18.5         8.1         2.16         -         ND         ND         ND         A         ND         1           2500 Pcl         2500 Pcl         3/23/2016         18.7         7.9         2.70         -         ND         ND         ND         A         ND         1           202 Zeard Sala S Moon Av         3/20/2016         19.7         7.9         2.70         -         ND         ND         ND         A         ND		S13-008	25417 Pennsylvania Av	3/23/2016	18.9	7.9	69.0	1	ND	ND	QN	ND	A	40	1	We///MWD Blend
Reservoir         32332016         19.0         7.9         1.16         -         0.65         ND         ND         ND         A         ND         1           1912 W. 25g <sup>n</sup> PI         32332016         18.5         8.1         2.10         -         ND         ND         ND         A         ND         1           26314 S Monte Vta.         32332016         18.5         8.1         2.15         -         ND         ND         ND         A         ND         3           2500 PCH         32322016         18.9         8.1         1.99         -         ND         ND         ND         A         ND         3           003         1948 W. 252 <sup>nd</sup> St         33022016         19.7         7.9         2.70         -         ND         ND         ND         A         ND         1           004         24632 S Moon Av         33022016         19.2         7.9         2.77         -         ND         ND         ND         ND         ND         ND         A         ND         1           102 Davin St         19.2         7.9         1.95         -         ND         ND         ND         ND         ND         A		A	2052 Dawn St	3/23/2016	18.0	8.0	1.63	1	ND	QN	ON	QN	A	12	1	We///MWD Blend
1912 W. 253" FI         3732/2016         18.5         8.1         2.10         -         ND         ND         ND         A         ND         2           26314 S. Monte Vta.         3723/2016         17.5         8.1         2.15         -         ND         ND         ND         A         ND         2           2600 PCH         3730/2016         18.9         8.1         1.59         -         ND         ND         ND         A         ND         2           303         1948 W. 252/a S. Moon Av         3730/2016         19.7         7.9         2.70         -         ND         ND         ND         A         ND         1           304         24632 S. Moon Av         3730/2016         19.2         7.9         1.57         -         ND         ND         ND         A         13         1           2052 Dawn St         3730/2016         19.2         7.9         0.77         -         ND         ND         ND         A         ND         1           Reservoir         3730/2016         18.5         2.01         -         ND         ND         ND         A         ND         A         ND         A         ND         <		,	Keservoir	3/23/2016	19.0	7.9	1.16	,	0.65	ND	ON	ND	A	ND	1	We///MWD Blend
26314 S Monte Vta.         3/23/2016         17.5         8.7         2.15         -         ND         ND         ND         A         ND         3           2500 PCH         3/23/2016         18.9         8.7         1.99         -         ND         ND         ND         A         ND         3           003         1948 W. 252" St.         3/30/2016         19.7         7.9         2.70         -         ND         ND         ND         A         ND         1           004         24632 S Moon Av         3/30/2016         19.7         7.9         1.57         -         ND         ND         ND         A         1         1           2052 Dawn St         3/30/2016         19.2         7.9         0.77         -         ND         ND         A         ND         A         1         1         A         ND         A         ND         A         ND         1         A         ND         A		13-1	1912 W. 259" PI	3/23/2016	18.5	8.1	2.10	1	ND	ND	ND	ND	A	DN	2	MWD Only
2500 PCH         S2200 PCH         S2200 PCH         NB         ND         ND<		13-2	26314 S Monte Vta.	3/23/2016	17.5	8.1	2.15	r	ND	ND	ND	ND	A	DN	m	MWD Only
003         1948 W. 252 <sup>nd</sup> St         3/30/2016         19.7         7.9         2.70         -         ND         ND         ND         ND         ND         1           004         24632 S Moon Av         3/30/2016         19.1         7.9         1.57         -         ND         ND         ND         ND         A         23         1           008         25417 Pennsylvania Av         3/30/2016         17.3         8.0         2.17         -         ND         ND         ND         A         13         1           Reservoir         3/30/2016         19.5         7.9         0.77         -         ND         ND         ND         A         ND         1           1912 W. 259 <sup>lh</sup> Pl         3/30/2016         18.5         2.01         -         ND         ND         ND         A         ND         1           2500 PCH         3/30/2016         16.9         8.2         2.15         -         ND         ND         ND         ND         A         ND         3           2500 PCH         3/30/2016         16.9         8.5         2.16         -         ND         ND         ND         A         ND         A		73-5	Z300 PCH	3/23/2016	18.9	8.1	1.99		QN	ND	ND	ND	A	QN	2	MWD Only
004         24632 S Moon Av         3/30/2016         19.1         7.9         1.57         -         ND         ND         ND         ND         A         23         1           008         25417 Pennsylvania Av         3/30/2016         17.3         8.0         2.17         -         ND         ND         ND         ND         A         13         1           2052 Dawn St         3/30/2016         19.2         7.9         0.77         -         ND         ND         ND         A         8         1           Reservoir         1912 W. 259 <sup>ll</sup> Pl         3/30/2016         18.5         8.2         2.01         -         ND         ND         ND         ND         A         ND         7           1912 W. 259 <sup>ll</sup> Pl         3/30/2016         18.5         8.2         2.01         -         ND         ND         ND         ND         A         ND         2           26314 S Monte Vfa.         3/30/2016         16.9         8.5         2.16         -         ND         ND         ND         ND         A         ND         3           2500 PCH         18.6         18.5         2.16         -         ND         ND         ND <td></td> <td>S13-003</td> <td>1948 W. 252<sup>nd</sup> St</td> <td>3/30/2016</td> <td>19.7</td> <td>7.9</td> <td>2.70</td> <td></td> <td>QN</td> <td>ND</td> <td>QN</td> <td>ND</td> <td>A</td> <td>QN</td> <td>1</td> <td>WellMWD Bland</td>		S13-003	1948 W. 252 <sup>nd</sup> St	3/30/2016	19.7	7.9	2.70		QN	ND	QN	ND	A	QN	1	WellMWD Bland
008         25417 Pennsylvania Av         3/30/2016         17.3         8.0         2.17         -         ND         ND         ND         ND         A         13         1           2052 Dawn St         3/30/2016         19.2         7.9         0.77         -         ND         ND         ND         ND         A         1           Reservoir         1912 W. 259 <sup>lh</sup> Pl         3/30/2016         19.5         7.9         19.5         -         ND         ND         ND         ND         N           1912 W. 259 <sup>lh</sup> Pl         3/30/2016         18.5         8.2         2.01         -         ND         ND         ND         ND         ND         ND         ND         ND         3           2500 PCH         3/30/2016         16.9         8.5         2.16         -         ND         ND<		S13-004	24632 S Moon Av	3/30/2016	19.1	7.9	1.57	1	ON	ND	ND	ND	A	23	1	We///MWD Blend
2052 Dawn St         3/30/2016         19.2         7.9         0.77         -         ND         ND         ND         ND         A         8         1           Reservoir         3/30/2016         19.5         7.9         19.5         -         ND         ND         ND         ND         ND         1           1912 W. 259th Pl         3/30/2016         18.5         8.2         2.01         -         ND         ND         ND         ND         ND         ND         1           25500 PCH         3/30/2016         16.9         8.5         2.16         -         ND		S13-008	25417 Pennsylvania Av	3/30/2016	17.3	8.0	2.17	1	ND	ND	QN	ND	A	13	1	We///MWD Blend
Reservoir         3/30/2016         19.5         7.9         19.5         -         ND         ND         ND         A         ND         1           1912 W. 259th PI         3/30/2016         18.5         8.2         2.01         -         ND         ND         ND         A         ND         2           2 6314 S Monte Vfa.         3/30/2016         17.9         8.5         2.15         -         ND         ND         ND         A         ND         3           2 5500 PCH         16.9         8.5         2.16         -         ND         ND         ND         A         ND         2		A	2052 Dawn St	3/30/2016	19.2	7.9	0.77	-	ND	ND	QN	ND	A	89	1	We///WWD Blend
1912 W. 259" PI         3/30/2016         18.5         8.2         2.01         -         ND         ND         ND         A         ND         2           26314 S Monte Vta.         3/30/2016         17.9         8.2         2.15         -         ND         ND         ND         A         ND         3           2500 PCH         3/30/2016         16.9         8.5         2.16         -         ND         ND         ND         A         ND         2			Reservoir "	3/30/2016	19.5	7.9	19.5		ND	ND	QN	ND	A	QN	1	We///MWD Blend
26314 S Monte Vta. 3/30/2016 17.9 8.2 2.15 - ND ND ND ND A ND 3/30/2016 16.9 8.5 2.16 - ND ND ND ND ND A ND 2		13-1	1912 W. 259" PI	3/30/2016	18.5	8.2	2.01	1	ND	ND	QN	QN	A	QN	2	MWD Only
2500 PCH 3/30/2016 16.9 8.5 2.16 - ND ND ND ND A ND 2		13-2	26314 S Monte Vta.	3/30/2016	17.9	8.2	2.15	ı	QN	ND	QN	QN	A	QN	8	MWD Only
		13-5	2500 PCH	3/30/2016	16.9	8.5	2.16	1	ON	ND	QN	QN	A	QN	2	MWD Only

Notes: Report Due to DDW by the 10<sup>th</sup> 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 continue results are part of weekly Bacti sampling results.