# **CITY OF LOMITA**



# Cypress Water Production Facility Monthly Status Report

**August 2018** 

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#### **CITY COUNCIL**

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



### **ADMINISTRATION**

RYAN SMOOT CITY MANAGER

September 10, 2018

Mr. Dmitry Ginzburg, P.E. District Engineer – Hollywood District State Water Resources Control Board – Division of Drinking Water 500 North Central Avenue, Suite 500 Glendale, CA 91203

<u>Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility</u> (CWPF) for the period of August 1 through August 31, 2018.

Dear Mr. Ginzburg,

In accordance with the Department of Public Health temporary approval letter dated March 15, 2013 and Permit Amendment No. 1910073, I am submitting the following report for the Cypress Water Production Facility operations for the month of August 2018.

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

Sincerely,

Mark Andersen Public Works Superintendent

### A. BACKGROUND

On March 15, 2013, the City of Lomita received conditional approval from the Department of Public Health (DPH) to distribute blended water from the Cypress Water Production Facility (CWPF) Well No. 5 to the City's customers.

The CWPF is an iron-manganese greensand filtration treatment system designed to remove primarily iron, manganese, and color. The CWPF was recently modified to enable aeration and blending with Metropolitan Water District (MWD) imported water to address the aesthetic secondary issues of Total Dissolved Solids (TDS), Hardness (as Calcium Carbonate), and Taste/Odor.

The CWPF came online on April 1, 2013. The first week of operations from April 1 to April 5, 2013 was utilized for conducting routine startup activities. The distribution of blended water to the City's residents began on April 5, 2013.

### **B. WELL PRODUCTION**

The CWPF operated continuously during the month of August 2018 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 436 gpm and 615 gpm from MWD. The blend ratio for month was 40% Well water and 60% MWD water. See Table 1 below for production totals for the month of August 2018.

			for August 2018
Well No. 5	60.65	ac-ft	19,760,589 (gallons)
MWD:	89.79	ac-ft	29,258,000 (gallons)
Combined Total	150.44	ac-ft	49,018,589 (gallons)
Daily	4.85	ac-ft/day	1,581,245 (gallons/day)

Table 1. Monthly Production Totals.

### C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of August 2018. Routine and preventive maintenance was performed on various pieces of equipment as-needed. No major planned operational interruptions are anticipated for the following month.

### D. SAMPLE LOCATIONS

Compliance monitoring is performed at the following sample locations: SP1, SP2, SP3, SP5, and SP6. The SP1 sample location is the raw well water sample location. The SP2 sample location is on the effluent side of the greensand filter (before ammonia injection or full chloramination). The SP3 sample location is downstream of the greensand filter after full chloramination and the static mixer before entering the reservoir. The SP5 sample location is the reservoir effluent sample location before entering the distribution system. The SP6 sample location is the MWD source sample location before blending occurs.

### E. WATER QUALITY MONITORING

All water quality monitoring analyses were performed by laboratories certified by the Department of Health's Environmental Laboratory Accreditation Branch (ELAB). The CWPF has been continuously monitored, maintained and inspected, per the CWPF Operations Monitoring and Maintenance Plan. A brief discussion of the laboratory and/or monitoring results is provided below. Refer to Appendix A for laboratory results.

### E1. IRON, MANGANESE AND COLOR

See Table 2 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color for raw water (SP1) was below the MCL level. Iron for raw water was below the MCL level and Manganese was above the MCL level for the month. Iron and Manganese levels before entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective.

### E2. FREE AND TOTAL CHLORINE RESIDUALS

Daily free chlorine residuals were monitored at SP2, SP3, SP4 and SP5. Daily total chlorine residuals were monitored at SP3, SP4 and SP5. Free chlorine and total chlorine residuals, at all respective sample points, were monitored using a combination of continuous chlorine analyzers and SCADA. See Table 3 below for a weekly summary of results.

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

See Table 4 below for a summary of the results for the monitoring of Total Dissolved Solids (TDS), Odor (as measured by the Threshold Odor No. - T.O.N.), Total Hardness as Calcium Carbonate, and Methane levels in water at three sample locations SP1, SP5 and SP6.

### E3-1 TOTAL DISSOLVED SOLIDS (TDS)

The sampling results indicate the TDS levels of the effluent blended water to be on average 557.5 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 780 mg/L and 460 mg/L, respectively.

### E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 260 mg/L. This hardness level is above the City's Water Quality Objective/Goal of 180 to 250 mg/L; staff continues to monitor hardness levels at the CWPF effluent (SP5) and within the water distribution system. The City has maintained a consistent blend ratio to ensure acceptable hardness levels are met.

Staff continues to use an orthophosphate/polyphosphate additive to sequester calcium hardness. Orthophosphate/Polyphosphate is a food grade National Sanitation Foundation (NSF 60) approved additive which decreases iron tuberculation, diminishes calcium scale deposits, minimizes corrosion, reduces discoloration, reduces staining and mineral build-up resulting in fewer customer complaints.

### E3-3 DISSOLVED METHANE (IN WATER)

The methane levels in the CWPF effluent after aeration treatment remain negligible averaging 0.21 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 August 2018 in Appendix B.

### E3-5 ODOR

The odor levels at the CWPF effluent averaged 2.0 units for the month.

### E3-6 TOTAL PHOSPHATE AND ORTHOPHOPHATE

See Table 5 below for a summary of the results for the monitoring of Orthophosphate and Total Phosphate both in the distribution system and CWPF.

### **E4. NITRIFICATION MONITORING**

Weekly nitrification sampling was performed during the month of August 2018 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results.

### F. TABLES

	SP1, Well Raw W			SP1, Well Raw Water Discharge							SP3, /		nloramin reservoir		tatic 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
8/8/2018											ND	300	ND	50	5	15
8/14/2018	240	300	190	50	10	15	A	А	ND	500	ND	300	ND	50	5	15
8/21/2018											ND	300	ND	50	7.5	15
8/28/2018											ND	300	ND	50	5	15

#### Table 2. 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

#### Table 3. Monitoring Results for Free and Total Chlorine at SP2, SP3, SP4 and SP5 Sample Locations.

Date,	SP2		SP3		2012	SP4		SP5			
week of	Free CI	Free CI	Total CI	Total NH₃	Free CI	Total CI	Total NH₃	Free CI	Total CI	Total NH <sub>3</sub>	
8/8/2018	6.83	1.03	6.49	0.80	0.69	4.48	0.73	0.14	3.54	0.68	
8/14/2018	7.10	1.00	9.20	1.10	0.75	5.17	0.86	0.06	3.58	0.71	
8/21/2018	7.74	0.90	8.93	1.00	0.70	4.94	0.84	0.10	3.72	0.73	
8/28/2018	7.35	1.03	8.93	1.01	0.91	4.28	0.76	0.09	3.68	0.71	

#### Table 4. Monitoring Requirements and Frequencies for SP1, SP5, and SP6.

		TD	S, mg/L		T.O.I	N.		Hardn	Methane (Water), 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	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 180 - 250 mg/L	SP1 - Raw Well Water	SP5 - Reservoir Effluent
8/8/2018			570	500-750	2	3						0.15
8/14/2018	780	460	600	500-750	2	3	350	200	260	180-250	2.2	0.15
8/21/2018			540	500-750	2	3						0.26
8/28/2018			520	500-750	2	3	-			St.		0.27
Average			557.5	500-750	2	3						0.21

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	

### Table 5. Monitoring Requirements and Frequencies for Total Phosphate and Orthophosphate.

Sample Location	Date, week of	Total Phosphate, mg/L	Orthophosphate, mg/L
1948 W 252 <sup>nd</sup> St	8/14/18	0.35	0.86
24632 S Moon Ave	8/14/18	0.32	0.44
2450 W 247 <sup>th</sup> St	8/14/18	0.35	0.56
2052 Dawn St	8/14/18	0.36	0.47
CWPF SP5	8/14/18	0.38	

Notes: Monthly- <u>Orange;</u> mg/L – milligram per liter

### Monthly CWPF Monitoring Report – August <u>2018</u> Cypress Water Production Facility City of Lomita; System No. 1910073

			of Lomita	<u> </u>				
Sample Locations	Frequency	MCL/	8/8/18	8/14/18	8/21/18	8/28/18	46	Comments
and Parameters		Goal	1stWk	2 <sup>nd</sup> Wk	3rdWk	4 <sup>th</sup> Wk	5 <sup>th</sup> Wk	and/or
								Other Info.
			or Mo.					
			Result					
			(date)					
SP1 Also called			<b>1</b>					
TDS, ppm	Monthly	See SP5	780 8/14/18	Operations	Data/Inform	nation:		*Chlorine injected after SP1, before entering
Hardness	Monthly	See SP5	350 8/14/18	CWPF opera				the greensand filter.
CH4, ppm	Monthly	See SP5	2.2 8/14/18	– 60.65 AF	, ,	ilow – <mark>436 gpm</mark> <b>ata:</b> Average V	· •	
Iron, ppb	Monthly	See SP3	240 8/14/18	blend Ratio –	40% WELL: 6	60% MWD; tota	al prod	
Manganese, ppb	Monthly	See SP3	<b>190</b> 8/14/18	Chlorine Do	sage: N/A*			
Color, units	Monthly	See SP3	<b>10</b> 8/14/18					
Total Coliform, P or A	Monthly	A	A 8/14/18					
SP2 Also called	Filter Efflu	ent or Si						
Total Coliform, P or A	Monthly	A	A					*Ammonia added after
HPC,MPN/100 ml	Monthly	500	ND	Ammonia D	osage: N/A*			filter effluent
Free CI Res, ppm	Continuous			ge: <u>6.83 – 7</u>	.74			1
SP3 Also called	the Site Af					ending or	Site#4	
Iron, ppb	Weekly	ND	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		4
Color	Weekly	15	5	5	7.5	5		+
Free and Total CI Res,	Continuous			; Range: 0.9		0		-
ppm		Total CI: A	Average: 8.3	9; Range: 6	.49 – 9.20			
				98; Range: (				
SP4 Also called	Reservoir	Influent o	or the Site	e Well 5/M	WD Water	Blend Po	int/Phosp	hate Injection.
Phosphate Injection		Phosphat	e Dosage: 0	.48 mg/L				
Free and Total CI Res,	Continuous			6; Range: 0.				CI/NH3 Ratio:
ppm				6; Range: 4.				5.99
	<u> </u>			79; Range: (				
SP5 Also called	7		or Site#5.	SP5 disc	harges in	to Zone 1	of the dis	tribution system.
TDS, ppm	Weekly	SI Goal: 500-750ppm	570	600	540	520		
Hardness	Monthly	SI Goal: 180-250ppm		280				Ĩ
CH4, ppm	Weekly	Goal: from PA	0.15	0.15	0.26	0.27		% CH4 Removal: 90.6%
Odor, units	Monthly	1	2	2	2	2		
Free and Total CI Res,	Continuous			0; Range: 0.0		8		CI/NH3 Ratio:
ppm				4; Range: 3.4				5.13
			: Average: 0.	67; Range: C	.67 – 0.74			
Headspace of the C								
<sup>1</sup> CH4 ppmv; using	Daily	Goal -		age: <mark>0.09%</mark>				
Portable Device	(from log)	LEL		ge: <mark>0% - 2</mark> %				
SP 6 MWD Source	ce Feeding	CWPF.	Also calle	d Zone 2 d	of the dist	ribution s	ystem or	Site #6.
TDS, ppm	Monthly			460				
Hardness	Monthly			200				
Notes: <sup>1</sup> Self-Imposed (SI) G	oals: TDS Goa	aa 0750-750	m; Hardness a	as CaCO3 Goa	al-180-250 ppr	n.		
***This Report is du	ue to DDW	by the 10	0 <sup>th</sup> of the f	ollowing	nonth.			

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

### **APPENDIX A**

LABORATORY RESULTS



24 August 2018

Clinical Lab No.: 18H0836

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

Project Name:Standard AnalysisSub Project:CWPF 1st Week of August, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 08/08/18. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

tister

Stu Styles Client Services Manager



Lomita, City of			Project: Star	ndard Ana	lysis		V	Vork Order:	18H0836
24373 Walnut Avenue		Su	ib Project: CW	PF 1st W	eek of August,	2018 Compliar	ice SamplirR	eceived: 0	8/08/18 14:45
Lomita CA, 91717		Project	Manager: Mar	k Anders	en		R	eported: 0	8/24/18
Reservoir Influent Site #3	<b>18H0836-01 (Water)</b> Sample Date: 08/08/18 8:35 Sampler:							mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	11		N/A	mg/L	08/08/18	08/08/18	1832142	
pH (Field)	Field	7.77		N/A	pH Units	08/08/18	08/08/18	1832142	
Temperature (Field)	Field	23.5		N/A	°C	08/08/18	08/08/18	1832142	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	08/08/18	08/08/18	1832165	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	08/21/18	08/21/18	1834046	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	08/21/18	08/21/18	1834046	
Reservoir Effluent Site #5		18H0836-	02 (Water)		Sample Da	te: 08/08/18	8:40 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.45		N/A	mg/L	08/08/18	08/08/18	1832142	
pH (Field)	Field	8.26		N/A	pH Units	08/08/18	08/08/18	1832142	
Temperature (Field)	Field	24.4		N/A	°C	08/08/18	08/08/18	1832142	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	08/08/18	08/08/18	1832165	
Odor Threshold	EPA 140.1-M	2	1	3	TON	08/08/18	08/08/18	1832165	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	570	5.0	1000	mg/L	08/15/18	08/17/18	1833092	

ND Analyte NOT DETECTED at or above the reporting limit

1 of 4 J081002



August 17, 2018



LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6 EPA Methods T014A, T015 UT Cert CA0133332015-3 EPA Methods T03, T014A, T015, RSK-175

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

### LABORATORY TEST RESULTS

Project Reference:18H0836Lab Number:J081002-01

Enclosed are results for sample(s) received 8/10/18 by Air Technology Laboratories. Samples were received intact and chilled to 5° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

**Report Narrative:** 

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson Operations Manager MJohnson@AirTechLabs.com

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

### SUBCONTRACT ORDER

### Clinical Laboratory of San Bernardino

	ooratory of San Bernardino 18H0836	1981905	-01
SENDING LABORATORY:	<b>RECEIVING LABORATORY:</b>		r
Clinical Laboratory of San Bernardino	Air Technology Labs		
21881 Barton Road	18501 East Gale Avenue Suite	130	
Grand Terrace, CA 92313	City of Industry, CA 91748		8-3
Phone: 909.825.7693 Fax: 909.825.7696	Phone :(626) 964-4032 Fax:		
Project Manager: Stu Styles	Fax:		
Please email results to Project Manager: Stu Styles	[ ] nelson@clinical-lab.com		
California EDT transfer those samples with PS codes Water Trax Upload Client:	provided []Yes [√No []Yes [√]No		, M
Turn Around Time [] 10 Days [v] 5 Days [] Oth Subcontract Comments:	her Days		
Analysis		Comments	
Sample ID: Reservoir Effluent Site #5 / 18H0836-02	Sampled: 08/08/18 08:40 PS Code: Water WTX	<b>K ID:</b>	
Methane RSK175		Report in mg/L	- 1
ontainers Supplied:			
0ml Amber Vial (B)40ml Amber Vial	(C)		
			3
		1	
		50	C
BI MA 08/10/18 07:40 Released By Date / Time	Ques Changes Received By	5° 9/10/18 Date / Time	U 83

Client:	<b>Clinical Laboratory</b>
Attn:	Stu Styles
<b>Project Name:</b>	NA
Project No.:	18H0836
Date Received:	08/10/18
Matrix:	Water
<b>Reporting Units:</b>	mg/L

		RS	K175			
Lab No.:	J08100	02-01			l – – – – – – – – – – – – – – – – – – –	
Client Sample I.D.:	Reservoir Site 18H08	#5/				
Date/Time Sampled:	8/8/18					
Date/Time Analyzed:	8/13/18	8/13/18 10:31				
QC Batch No.:	1808130	GC8A1				(a
Analyst Initials:	AS	5		8		
Dilution Factor:	1.(	)				
ANALYTE	Result mg/L	RL mg/L				
Methane	0.15	0.0010				

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

**Reviewed/Approved By:** 

.

Mark Johnson

**Operations Manager** 

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc. -

18501 E. Gale Avenue, Suite 130 + City of Industry, CA 91748 + Ph: (626) 964-4032 + Fx: (626) 964-5832

pa

Date 8/17/18

### LCS/LCSD Recovery and RPD Summary Report

### QC Batch #: 180813GC8A1

Matrix: Air

Reporting	Units:	mg/L

				RSK	(175						
		LABO	DRATORY	CONTRO	DL SAMPI	LE SUMM	ARY				
Lab No.:	METHOD	BLANK		L	CS	L	CSD				
Date/Time Analyzed:	8/13/18	9:47		8/13/1	8 9:19	8/13/	18 9:34				
Analyst Initials:	AS			A	S	ŀ	IS				
Dilution Factor:	1.0			1	.0	1.0					
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.684	105	0.668	102	2.3	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: \_

MALL I

Mark Johnson **Operations Manager** 

The cover letter is an integral part of this analytical report

Date 8 01/8

013 Chain of Custody

18H0836

Client	City of Lomita	Sys	System Number	mber			A	Analysis Requested	is Rec	lueste	q		
Address	24373 Walnut Avenue			101	1010072								
	Lomita, CA 91717			2	0010					M			
hone #	(310)903-2243		D	estinatio	Destination Laboratory					leth			
-ax #			d	Clinica (	[X] Clinical Laboratory					ane			
Project	Standard Analysis		Ľ	WQCB (	RWQCB Compliance						~	_	
Sub Project	CWPF 1st week of August, 2018 Compliance Samolino				yes FIAD#			olved S	olor	dor ater) (	dorr		
Comments	For TC/EC/BACT see weekly Distro CoC									RSK			
sampled by	P. W.			Ĩ	1088					175)		_	
Date Time	Sample Idenitification	Matrix	Type	Preserv	Hq	Temp.	Total Chlorine						Comments / P.S. Codes
8/8/2018 0835	ပိုင်နှင့် Reservoir Influent Site #3	MQ	1W	N/A	7.77 2	350	11.0	X	X				
					0	-	2.0						
	OB4 O Reservoir Effluent Site #5	MQ	M	NIA	20170	44	5.45	×	×	-	×	-	
8/8/2018 0640	OBYO Reservoir Effluent Site #5	MQ	IW	7				_		×			
								-		-		-	
												-	
										$\left  \right $			
												_	
										+			
reservatives: (1) Na	reservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI	Matrix: DV	V-Drinkin	g Water,	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	Nater, SV	V-Storm Wa	Iter, GV	V- Grou	ind Wal	er, A-Ai.		Type- 1-Routine, 2-Repeat, 3-
(5) H2SO4 (6) N	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:						Replac	Replacement,		ial W-	4-Special W-Well D- Dist.	Dist.	
Relinquished By (Sign)	By (Sign) Print Name / Company				Date / Time	ne l	0	1	-				Print Name / Company
Patrick M	Kie Retrick MCCUL City of Lomita		8/8/2018	112	02:	X	P.	3		2 th		1	LUCORD/CLSB
2 AX	mann c ~m	2 5 2	0018	2	5	-			3	111	1	X	
comments:				S	Samples received:	ceived:	Addn ike	J	) Intact	् ट ि	) Cus	tody st	Custody seals Temp 6.0 ()F XC
Shipped Via	Fed X     Golden State	SAU []	Clien		Other				-	Page	Page_1_of		
•													

"Your Water and Wastewater Analysis Solution"



31 August 2018

Clinical Lab No.: 18H1262

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

Project Name:Standard AnalysisSub Project:CWPF Monthly Compliance Samples, 2nd Wk of August

Enclosed are the results of the analyses for samples received at the laboratory on 08/14/18. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

tister

Stu Styles Client Services Manager



Lomita, City of 24373 Walnut Avenue Lomita CA, 91717			Project: Star b Project: CW Manager: Mar	PF Montl	hly Complianc	e Samples, 2nd	Wk of Au	Work Order gReceived: Reported:	18H1262 08/14/18 16:00 08/31/18
Raw Water Site #1		18H1262-	01 (Water)		Sample Dat	te: 08/14/18	10:00	Sampler:	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	7.82		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	23.7		N/A	°C	08/14/18	08/14/18	1833080	
Microbiology Analyses									
Total Coliform	SM 9223	А		N/A	P/A	08/14/18	08/15/18	1833096	
E. Coli	SM 9223	А		N/A	P/A	08/14/18	08/15/18	1833096	
Plate Count	SM9215B	220	1	500	CFU/ml	08/14/18	08/16/18	1833146	
General Physical Analyses									
Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	08/14/18	08/14/18	1833127	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	350	6.6	N/A	mg/L	08/28/18	08/28/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	780	5.0	1000	mg/L	08/21/18	08/24/18	1834057	
Metals									
Calcium (Ca)	EPA 200.7	92	1.0	N/A	mg/L	08/28/18	08/28/18	1835038	
Iron (Fe)	EPA 200.7	240	100	300	ug/L	08/27/18	08/27/18	1835021	
Magnesium (Mg)	EPA 200.7	29	1.0	N/A	mg/L	08/28/18	08/28/18	1835038	
Manganese (Mn)	EPA 200.7	190	20	50	ug/L	08/27/18	08/27/18	1835021	
Filter Effluent (Free Chlorine) Site #2		18H1262-	02 (Water)		Sample Dat	te: 08/14/18	10:05	Sampler:	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	11.8		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	7.77		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	23.7		N/A	°C	08/14/18	08/14/18	1833080	
Microbiology Analyses									
Total Coliform	SM 9223	А		N/A	P/A	08/14/18	08/15/18	1833096	
E. Coli	SM 9223	А		N/A	P/A	08/14/18	08/15/18	1833096	
Plate Count	SM9215B	ND	1	500	CFU/ml	08/14/18	08/16/18	1833146	



Lomita, City of		G	Project: Star		5			Vork Order:	18H1262
24373 Walnut Avenue Lomita CA, 91717			ib Project: CW Manager: Mar			e Samples, 2nd	-		08/14/18 16:00 08/31/18
		Floject	Wanager. War	K Anders	ell		-	eponea.	00/01/10
Filter Effluent (Total Chlorine) Site #3		18H1262-	03 (Water)		Sample Da	<b>te:</b> 08/14/18	10:10 Sa	mpler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	10.9		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	7.76		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	23.8		N/A	°C	08/14/18	08/14/18	1833080	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	08/14/18	08/14/18	1833127	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	08/27/18	08/27/18	1835021	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	08/27/18	08/27/18	1835021	
Zone #2 Site #6		18H1262-	04 (Water)		Sample Da	<b>te:</b> 08/14/18	10:10 Sa	mpler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.09		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	8.55		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	25.2		N/A	°C	08/14/18	08/14/18	1833080	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	200	6.6	N/A	mg/L	08/28/18	08/28/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	460	5.0	1000	mg/L	08/21/18	08/24/18	1834057	
Metals									
Calcium (Ca)	EPA 200.7	48	1.0	N/A	mg/L	08/28/18	08/28/18	1835038	
Magnesium (Mg)	EPA 200.7	20	1.0	N/A	mg/L	08/28/18	08/28/18	1835038	



Lomita, City of 24373 Walnut Avenue Lomita CA, 91717			Project: Star b Project: CW Manager: Mar	PF Month	ly Complian	ce Samples, 2n	d Wk of AugI		18H1262 08/14/18 16:00 08/31/18
Reservoir Effluent Site #5		18H1262-0	05 (Water)		Sample Da	te: 08/14/1	8 10:12 S	ampler: Pa	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.7		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	8.25		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	24.8		N/A	°C	08/14/18	08/14/18	1833080	
General Physical Analyses									
Odor Threshold	EPA 140.1-M	2	1	3	TON	08/14/18	08/14/18	1833127	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	260	6.6	N/A	mg/L	08/28/18	08/28/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	600	5.0	1000	mg/L	08/21/18	08/24/18	1834057	
Metals									
Calcium (Ca)	EPA 200.7	66	1.0	N/A	mg/L	08/28/18	08/28/18	1835038	
Magnesium (Mg)	EPA 200.7	23	1.0	N/A	mg/L	08/28/18	08/28/18	1835038	

ND Analyte NOT DETECTED at or above the reporting limit

1 of 4 J081501



August 22, 2018



LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6 EPA Methods T014A, T015

UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

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

### LABORATORY TEST RESULTS

Project Reference: 18H1262 Lab Number: J081501-01/02

Enclosed are results for sample(s) received 8/15/18 by Air Technology Laboratories. Samples were received intact and chilled to 8° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson Operations Manager MJohnson@AirTechLabs.com

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

### SUBCONTRACT ORDER

### Clinical Laboratory of San Bernardino

2 of 4 J081501

	Clinical Laboratory of San Bernardino	1-01/02
SENDING LABORATORY:	<b>RECEIVING LABORATORY:</b>	s.
Clinical Laboratory of San Bernardino	Air Technology Labs	
21881 Barton Road	18501 East Gale Avenue Suite 130	
Grand Terrace, CA 92313	City of Industry, CA 91748	
Phone: 909.825.7693	Phone :(626) 964-4032	
Fax: 909.825.7696	Fax:	
Project Manager: Stu Styles		
Please email results to Project Manager: Stu [] glaubig@clinical-lab.com [v] styles@	ı Styles clinical-lab.com [] nelson@clinical-lab.com	
California EDT transfer those sampl Water Trax Upload Client:	es with PS codes provided [] Yes [1] No	
Turn Around Time $[$ ] 10 Days $[\sqrt{]}$ Subcontract Comments:	5 Days [] Other Days	
Subcontract Comments:	5 Days [] Other Days	
Subcontract Comments:	Comments Sampled: 08/14/18 10:00 PS Code:	
Subcontract Comments:	Comments	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01	Comments Sampled: 08/14/18 10:00 PS Code:	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01 O [ Methane RSK175	Comments Sampled: 08/14/18 10:00 PS Code: Water WTX ID:	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01 O [ Methane RSK175 Containers Supplied:	Comments Sampled: 08/14/18 10:00 PS Code: Water WTX ID:	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01 O [ Methane RSK175 Containers Supplied:	Comments Sampled: 08/14/18 10:00 PS Code: Water WTX ID: Report in mg/L 40ml Amber Vial (C) 262-05 Sampled: 08/14/18 10:12 PS Code:	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01 O [ Methane RSK175 Containers Supplied: Oml Amber Vial (B)	Comments Sampled: 08/14/18 10:00 PS Code: Water WTX ID: Report in mg/L 40ml Amber Vial (C)	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01 O[ Methane RSK175 Containers Supplied: Oml Amber Vial (B) Sample ID: Reservoir Effluent Site #5 / 18H12	Comments Sampled: 08/14/18 10:00 PS Code: Water WTX ID: Report in mg/L 40ml Amber Vial (C) 262-05 Sampled: 08/14/18 10:12 PS Code:	
Subcontract Comments: Analysis Sample ID: Raw Water Site #1 / 18H1262-01 O[ Methane RSK175 Containers Supplied: Oml Amber Vial (B) Sample ID: Reservoir Effluent Site #5 / 18H12 OV	Comments Sampled: 08/14/18 10:00 PS Code: Water WTX ID: Report in mg/L 40ml Amber Vial (C) 262-05 Sampled: 08/14/18 10:12 PS Code: Water WTX ID:	

					3°C
Released By Released By	08 /15/18 Date / Time 8 /15/18 Date / Time	07:45 A Received I 9:35 Received I	Varn-	8/15/18 Date / Time 8/15/18 Date / Time	8:18

Client:	<b>Clinical</b> Laboratory
Attn:	Stu Styles
<b>Project</b> Name:	NA
Project No.:	18H1262
Date Received:	08/15/18
Matrix:	Water
<b>Reporting Units:</b>	mg/L

		RS	K175				
Lab No.:	J08150	)1-01	J0815	01-02			
Client Sample I.D.:	Raw Wate / 18H12		Reservoir Site #5 / 1 05	8H1262-			
Date/Time Sampled:	8/14/18	10:00	8/14/18	10:12			
Date/Time Analyzed:	8/21/18	8/21/18 9:53		10:06			
QC Batch No.:	1808210	GC8A1	1808210	GC8A1			
Analyst Initials:	AS	5	AS				
Dilution Factor:	1.(	)	1.(	)			
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L			
Methane	2.2	0.0010	0.15	0.0010			

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

Reviewed/Approved By:

Mark Johnson

Operations Manager

The cover letter is an integral part of this analytical report

Date 8-22-18

Air TECHNOLOGY Laboratories, Inc. -

### LCS/LCSD Recovery and RPD Summary Report

### QC Batch #: 180821GC8A1 Matrix: Air

Reporting Units: mg/L

				RSK	(175						
		LAB	ORATORY	CONTRO	OL SAMPI	LE SUMM	ARY				
Lab No.:	METHOD	BLANK		L	CS	L	CSD				
Date/Time Analyzed:	8/21/18	9:16	1	8/21/1	8 8:46	8/21/	18 9:00				
Analyst Initials:	AS		]	A	S	ŀ	AS				
Dilution Factor:	1.0			1	.0	1	1.0				
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.800	122	0.797	122	0.4	70	130	30.0

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

**Reviewed/Approved By:** 

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

Date 8-22-18

AirTECHNOLOGY Laboratories, Inc. -

page 1 of 1

Client		City of Lomita	Syst	System Numb	Imber				<b>Analysis Requested</b>	s Req	lested					
Address		24373 Walnut Avenue			101	010072		,								
		Lomita, CA 91717				0 000								M		
Phone #		(310)903-2243		C	Destinatic	Destination Laboratory	ory -				He			etha		
Fax #				-	X] Clinic	[X] Clinical Laboratory	<b>Jry</b>			1				ane		
Project		Standard Analysis			RWQCB	RWQCB Compliance	e								H	
Sub Ducied	CWPF.	<b>CWPF</b> Monthly Compliance Samples;				YES				E. C		Col litra	Od		ard	
sub Project	5	2nd week of August, 2018			Ξ	ELAP #			-		Plat olifo				ness	
Comments					T	1088			anese Solid		e Cou rm			(RSF		
Sampled by		Patrick McCue			-	200			<u></u>		nt			<b>K</b> 175)		
Date Ti	Time	Sample Idenitification	Matrix	Type	Preserv	Temp.	Hd	Total Chlorine						)		
8/14/2018 1000	0	Raw Water Site #1	GW	<u>N</u>	N/A	237	7.8.2	Q	X, X,				×·			
8/14/2018	000	Raw Water Site #1	GW	<u>»</u>	1, 2, 7			-		x X	X <sub>2</sub> X.			х,	X :-	
														÷*,		
8/14/2018 100	1005 Filter	Filter Effluent (Free Chlorine) Site#2	MQ	1W	1,7	23.70	LL1	11.60 11	<u> </u>	~ .X	X, X <sup>2</sup>					
8/14/2018 1010		Filter Effluent (Total Chlorine) Site#3	MQ	1W	V/N	238°	76	10.9	×				X -			
8/14/2018 \ 0	0101	Zone #2 Site #6	DW	(I)	V/N	2.52	8.55	60.2	ו						X,	
	*															
8/14/2018 1017		Reservoir Effluent Site #5	MQ	61	N/A	24.8°	8,25	3.70	×°				×.		X∘	
8/14/2018 1 O	2101	Reservoir Effluent Site #5	DW	9	2,7									۰X		
Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI	la <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3	() HNO3 (4) NH4CI	Matrix: DW-Drinking	W-Drink	ing Wate	ir, WW-Wa	ste Water,	Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	Water, G	W- Gro	aW bru	er, A-A			Type- 1-Ro	Type- 1-Routine, 2-Repeat,
(5) H2SO4 (6)	Na2SO3 (7) Cold	(8) Other:						day-c	J-replacement, 4-Special W-Well D-DISL	, 4-Spel	1-11 IBI		nist.			
Relinquishe	Relinquished By (Sign)	Print Name / Company	v			Date / Time	ïme			L R	Received By	By (Sign	2		Print Name / Company	Company
Pertime Me	Nelse	Patrick McCue /City of Lomita 8/14/2018	somita {	1/14/20	18	/	/	30	2	ba	1 all		The second	1	Chriss Mo	thire t
Chris da	1 Then	Wartiner		Bulls	15		4	CO		5		$\checkmark$		$\mathcal{N}$	V KO	YSR
Comments:					õ	Samples received:	ceived:	( ) On ice	ور (کر دو	Intact	(`	Custo	Custody seals		Temp( ) F	) j X
Shipped Via		Fed X     Golden State	I   UPS		Client	Other					Pa	Page_1_ of_1_	f_1_			

"Your Water and Wastewater Analysis Solution"

184/1262 Chain of Custody

Clinical Laboratory of San Bernardino, Inc.



07 September 2018

Clinical Lab No.: 18H2004

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

Project Name:Standard AnalysisSub Project:CWPF 3rd Week of July, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 08/21/18. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

tister

Stu Styles Client Services Manager



Lomita, City of 24373 Walnut Avenue		Su	Project: Star ib Project: CW		5	)18 Compliance		Vork Order: .eceived: 0	18H2004 8/21/18 14:15
Lomita CA, 91717		Project	Manager: Mar	k Anders	en		R	eported: 0	9/07/18
Reservoir Influent Site #3		18H2004-	01 (Water)		Sample Da	<b>te:</b> 08/21/18	9:10 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	10.4		N/A	mg/L	08/21/18	08/21/18	1834112	
pH (Field)	Field	7.79		N/A	pH Units	08/21/18	08/21/18	1834112	
Temperature (Field)	Field	23.9		N/A	°C	08/21/18	08/21/18	1834112	
General Physical Analyses									
Apparent Color	SM 2120BM	7.5	3.0	15	Color Units	08/21/18	08/21/18	1834105	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	08/30/18	08/31/18	1835131	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	08/30/18	08/31/18	1835131	
Reservoir Effluent Site #5		18H2004-	02 (Water)		Sample Da	te: 08/21/18	10:25 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.58		N/A	mg/L	08/21/18	08/21/18	1834112	
pH (Field)	Field	8.26		N/A	pH Units	08/21/18	08/21/18	1834112	
Temperature (Field)	Field	24.6		N/A	°C	08/21/18	08/21/18	1834112	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	08/21/18	08/21/18	1834105	
Odor Threshold	EPA 140.1-M	2	1	3	TON	08/21/18	08/21/18	1834105	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	540	5.0	1000	mg/L	08/28/18	08/30/18	1835032	

ND Analyte NOT DETECTED at or above the reporting limit

1 of 4 J082304



August 30, 2018



LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6 EPA Methods T014A, T015 UT Cert CA0133332015-3 EPA Methods T03, T014A, T015, RSK-175

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

### LABORATORY TEST RESULTS

Project Reference:18H2004Lab Number:J082304-01

Enclosed are results for sample(s) received 8/23/18 by Air Technology Laboratories. Samples were received intact and chilled to 7° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson Operations Manager MJohnson@AirTechLabs.com

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

### SUBCONTRACT ORDER

2 of 4 J082304

Clin	nical Laboratory of San Bernardino 18H2004 JOB 234-01
SENDING LABORATORY:	RECEIVING 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	Air Technology Labs 18501 East Gale Avenue Suite 130 City of Industry, CA 91748 Phone :(626) 964-4032 Fax:
	-lab.com [] nelson@clinical-lab.com
California EDT transfer those samples with F Water Trax Upload Client:	PS codes provided [] Yes [] No [] Yes [] No
Turn Around Time [] 10 Days [] 5 Days Subcontract Comments:	[] Other Days
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 18H2004-02	Sampled: 08/21/18 10:25 PS Code: Water WTX ID:
Methane RSK175	Report in mg/L
Containers Supplied: Oml Amber Vial (B) 40ml Am	nber Vial (C)

 			7°C
BJ Ily	08/23/18 07:30	Michaelle	8/3/18 - 8:00
Released By	Date / Time 8/23/14 11:35	Received By	Date / Time
Keleased By	/ Date / Time	Received By	Date / Time

Client:	<b>Clinical Laboratory</b>
Attn:	Stu Styles
<b>Project Name:</b>	NA
Project No.:	18H2004
Date Received:	08/23/18
Matrix:	Water
<b>Reporting Units:</b>	mg/L

		RS	K175			
Lab No.:	J0823	04-01			1	
Client Sample I.D.:	Reservoir Site 18H20	#5/				
Date/Time Sampled:	8/21/18	10:25				
Date/Time Analyzed:	8/28/18	13:55				
QC Batch No.:	1808280	GC8A2				
Analyst Initials:	AS	5				2
Dilution Factor:	1.(	)				
ANALYTE	Result mg/L	RL mg/L				
Methane	0.26	0.0010				

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

Reviewed/Approved By:

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

page 1 of 1

Date 8-30-18

### LCS/LCSD Recovery and RPD Summary Report

### QC Batch #: 180828GC8A2

Matrix: Air

Reporting Units: mg/L

				RSK	(175						
		LAB	ORATORY	Y CONTRO	OL SAMPI	LE SUMM	ARY				
Lab No.:	METHOD	BLANK	1	L	CS	L	CSD				
Date/Time Analyzed:	8/28/18 1	3:38	1	8/28/1	8 12:13	8/28/1	8 12:28				
Analyst Initials:	AS		]	A	S	A	IS				
Dilution Factor:	1.0			1	.0	1	.0				
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.759	116	0.757	116	0.3	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

**Reviewed/Approved By:** 

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

Date 8-30-18

AirTECHNOLOGY Laboratories, Inc. -

"Your Water and Wastewater Analysis Solution"

Client Address Phone # Fax # Project Sub Project	City of Lomita 24373 Walnut Avenue Lomita, CA 91717 (310)903-2243 Standard Analysis CWPF 3rd week of August, 2018 Compliance Sampling	fa venue 717 717 3 3 3 sis sis v018 Compliance	System Number 19 Destina [X] Clin RWQC	Number 19 Destina [X] Clii RWQQ		ber 1910073 tination Laborator Clinical Laborator VQCB Compliance yes ELAP #	umber 1910073 Destination Laboratory [X] Clinical Laboratory RWQCB Compliance yes ELAP #	10073 tion Laboratory ical Laboratory B Compliance yes ELAP #	10073 tion Laboratory ical Laboratory B Compliance yes ELAP #	Analy tion Laboratory lical Laboratory B Compliance yes ELAP #
	For TC/EC/BACT see weekly Distro CoC	Distro CoC		_	8	1088	38			spi
Date Time	Sample Idenitification		Matrix Type	e Preserv		pH	Temp.	Temp. Lotal Chlorine	Temp. Lotal Chlorine	Temp. Lotal Chlorine
8/21/2018 09/0	<u> </u>		DW IW	N/A		H	2.5.4	23.4 10.7	2.5% 10.7 X	2.5.4° 10.4° X
8/21/2018 1025	Reservoir Effluent Site #5		DW IW	7	00	8.26	24.60	1. 19	24.6 3,5	24.6 3,58 x x
8/21/2018 1075	Reservoir Effluent Site #5		DW IW	v 2		1				
Preservatives: (1) Na	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI	M	atrix: DW-D	rinking Wate	r, WV	V-Wast	V-Waste Water, SV	v-Waste Water, SW-Storm Wa Replac	v-Waste Water, SW-Storm Water, GW- Replacement, 4	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air Replacement, 4-Special W-Well D- Dist.
(5) H2SO4 (6) Na2SO3 (7) (5) Relinguished By (Sign)	Sold (8) Other:	Print Name / Company	_		D	ate / T	Date / Time			
att hanning	Patrick	MC City of Lomita		8/21/2018 /		-	12:40	12:40	12:40	12:40 Chais
A DAY A DAY	the Chris	Yartinez	8-1	8112			2:15	2:15	2:15 0	2:15 04
how may				_	2	nples I	nples received:	Samples received: ( ) On i	) On ice (	č
Comments:		à			Dat					

Clinical Laboratory of San Bernardino, Inc.



Chain of Custody



07 September 2018

Clinical Lab No.: 18H2435

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

Project Name:Standard AnalysisSub Project:CWPF 4th Week of August, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 08/28/18. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

tister

Stu Styles Client Services Manager



Lomita, City of			Project: Star		2			Vork Order:	18H2435
24373 Walnut Avenue		Su	ib Project: CW	PF 4th W	eek of August,	2018 Complian	-		8/28/18 15:1:
Lomita CA, 91717		Project	Manager: Mar	k Anders	en		R	Reported: 0	9/07/18
Reservoir Influent Site #3		18H2435-	01 (Water)		Sample Dat	te: 08/28/18	9:25 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	9		N/A	mg/L	08/28/18	08/28/18	1835060	
pH (Field)	Field	7.89		N/A	pH Units	08/28/18	08/28/18	1835060	
Temperature (Field)	Field	23.5		N/A	°C	08/28/18	08/28/18	1835060	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	08/28/18	08/28/18	1835083	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	08/30/18	08/31/18	1835131	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	08/30/18	08/31/18	1835131	
Reservoir Effluent Site #5		18H2435-	02 (Water)		Sample Dat	te: 08/28/18	9:40 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.9		N/A	mg/L	08/28/18	08/28/18	1835060	
pH (Field)	Field	8.21		N/A	pH Units	08/28/18	08/28/18	1835060	
Temperature (Field)	Field	23.8		N/A	°C	08/28/18	08/28/18	1835060	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	08/28/18	08/28/18	1835083	
Odor Threshold	EPA 140.1-M	2	1	3	TON	08/28/18	08/28/18	1835083	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	520	5.0	1000	mg/L	08/31/18	09/05/18	1835147	

ND Analyte NOT DETECTED at or above the reporting limit

1 of 4 J082903



September 6, 2018



LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6 EPA Methods T014A, T015

UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

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

### LABORATORY TEST RESULTS

Project Reference: 18H2435 Lab Number: J082903-01

Enclosed are results for sample(s) received 8/29/18 by Air Technology Laboratories. Samples were received intact and chilled to 8° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mall. 1

Mark Johnson Operations Manager MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.
#### SUBCONTRACT ORDER

#### 2 of 4 J082903

8/29

Date / Time

18 0953

	Clinical Laboratory of San Bernardino 18H2435	1082403-0)
SENDING LABORATORY:	RECEIVING LABORATORY:	A DESCRIPTION OF A DESCRIPTION
Clinical Laboratory of San Bernardino 21881 Barton Road Grand Terrace, CA 92313 Phone: 909.825.7693 Fax: 909.825.7696 Project Manager: Stu Styles	Air Technology Labs 18501 East Gale Avenue Suite 1 City of Industry, CA 91748 Phone :(626) 964-4032 Fax:	30
Please email results to Project Manager: Stu [ ] glaubig@clinical-lab.com [V] styles@	a Styles clinical-lab.com [] nelson@clinical-lab.com	
California EDT transfer those sampl Water Trax Upload Client:	es with PS codes provided [] Yes [v] No [] Yes [v] No	
Turn Around Time [] 10 Days [] Subcontract Comments:	5 Days [] Other Days	
Analysis		Comments
Sample ID: Reservoir Effluent Site #5 / 18H2	435-02 Sampled: 08/28/18 09:40 PS Code: Water WTX	ID:
Methane RSK175 ontainers Supplied: Oml Amber Vial (B)	40ml Amber Vial (C)	Report in mg/L
	an the state of th	2 m
		8°C
BJ Dury 08/	29/18 07:30 7/ Time Received By	Skg/18 8:18 Date/Time

/29/18 Date / Time

953

Received By

8

Released By

Client:	<b>Clinical Laboratory</b>
Attn:	Stu Styles
<b>Project Name:</b>	NA
Project No.:	18H2435
Date Received:	08/29/18
Matrix:	Water
<b>Reporting Units:</b>	mg/L

		RS	K175			
			1			
Lab No.:	J08290					
	Reservoir	Effluent				
Client Sample I.D.:	Site	#5/				
	18H24	35-02				
Date/Time Sampled:	8/28/18	8 9:40				
Date/Time Analyzed:	9/5/18	9:37				
QC Batch No.:	1809040	GC8A2				
Analyst Initials:	AS	5				
Dilution Factor:	1.(	)				
	Result	RL				
ANALYTE	mg/L	mg/L				
Methane	0.27	0.0010				

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

Reviewed/Approved By: \_

M/ 1d Mark Johnson

Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc. -

page 1 of 1

18501 E. Gale Avenue, Suite 130 City of Industry, CA 91748 Ph: (626) 964-4032 Fx: (626) 964-5832

### LCS/LCSD Recovery and RPD Summary Report

Date 9/6/18

### QC Batch #: 180904GC8A2

Matrix: Air

**Reporting Units: mg/L** 

		LAB	ORATORY	RSK Y CONTRO	(175 DL SAMPI	LE SUMM	ARY				
Lab No.: Date/Time Analyzed:	METHOD 9/4/18 1				CS 15:56		CSD 8 16:09				
Analyst Initials: Dilution Factor:					.0		AS 1.0				
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.624	95.4	0.610	93.2	2.4	70	130	30.0

ND= Not Detected (below RL)

**RL** = **Reporting Limit** 

Reviewed/Approved By:

Mark Johnson Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc. -

Chain of Custody	1842435										Comments / P.S. Codes									nin water, Gw- Ground water, A-Air Replacement, 4-Special W-Well D- Dist.	Print Name / Company	Berne Mis Dartiniz	< Chinis Verez / USB	Custody seals Temp Z () F & C	
		Analysis Requested		N	1eth	ane		dor iter) (l	RSK	175)			X	x	 			-		id water, ial W-We			þ.	ct ()	Page
		is Req				_		olor				X	×		 _					4-Spec	10	hmu		) Intact	
		Analys	·		·			olved So angane			-2	X	×	_	 _	+				sement.	<b> </b>		5	- ) ə:	
	م.										Total Chlorine	9.0	3.90						Ctorm M	Replac		00,	Ś	) On ice	
	٩		7		2	2					Temp.	13.50 6	 23.65						Mator CIN	Waler, Ju	me		m	Samples received: (	
		-	6200	222	Laborato	Laborato	ompliance	yes FI AP #		1088	Hq	7.69	57						MA/ MA/240	a)A.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	Date / Time			mples re	1 Other
		mber	1010073	מור	Destination Laboratory	[X] Clinical Laboratory	RWQCB Compliance	yes FI AP		0 L	Preserv	N/A	◄	2					Mator N	y valer, v		-	× 7 %	Sa	-
• • • •		System Number			ă		Ľ				Type	1W	<u>»</u>	1W					Matrix: DM/ Drinking Wheter MM/ Wheter SM Server Meters CM Conned Wheter A Air			8/28/2018	\$-78		1 1 Client
сi		Sys									Matrix	ΜQ	MQ	DW,					Matriv. D					)	Sd/11
Clinical Laboratory of San Bernardino, Inc.	· · ·	City of Lomita	24373 Walnut Avenue	Lomita, CA 91717	(310)903-2243		Standard Analysis	CWPF 4th week of August, 2018 Compliance Sampling	For TC/EC/BACT see weekly Distro CoC	P.M.	Sample Idenitification	C925 Reservoir Influent Site #3	CY YO Reservoir Effluent Site #5	0위네O Reservoir Effluent Site #5			<i>6</i> .			гтезегиациев: (1) Na2s2U3 (2) HUI (3) HNU3 (4) NH4UI (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:	v (Sign) Print Name / Company	ſ	Tel Phils Wellins	A	[   Fed X     Golden State
inical											Time	526	220	0940 1						4 (6) Na25	Relinquished By (Sign)	L mile			
CI	•	Client	Address		Phone #	Fax #	Project	Sub Project	Comments	Sampled by	Date	8/28/2018		8/28/2018						Freservauves (5) H2SC	Reling	Patrich	three	Comments:	Shinned Via

"Your Water and Wastewater Analysis Solution"

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Chain of Custody

# Clinical Laboratory of San Bernardino, Inc.



30 August 2018

Clinical Lab No.: 18H1258

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

Project Name:Standard AnalysisSub Project:Lomita Distribution Ortho, 2nd Week August 2018

Enclosed are the results of the analyses for samples received at the laboratory on 08/14/18. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

tister

Stu Styles Client Services Manager

# Clinical Laboratory of San Bernardino, Inc.



Lomita, City of			Project: Star	idard Ana	lysis		v	Work Order:	18H1258
24373 Walnut Avenue		Su	b Project: Lon	nita Distri	bution Ortho,	2nd Week Augu	ist 2018 I	Received: 0	8/14/18 16:00
Lomita CA, 91717		Project	Manager: Mar	k Anderse	en		I	Reported: 0	8/30/18
1948 252nd St.		18H1258-	01 (Water)		Sample Da	te: 08/14/18	7:35 S	ampler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.4		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	8.22		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	25.9		N/A	°C	08/14/18	08/14/18	1833080	
<u>General Chemical Analyses</u>									
Ortho-Phosphate (PO4)	HACH 8048	0.86	0.020	N/A	mg/L	08/15/18	08/15/18	1833113	
Phosphorus (Total as P)	HACH 8190	0.35	0.0067	N/A	mg/L	08/24/18	08/29/18	1835070	
24632 S. Moon		18H1258-	02 (Water)		Sample Da	<b>te:</b> 08/14/18	8:25 S	ampler: P.1	М.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.9		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	8.16		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	25.2		N/A	°C	08/14/18	08/14/18	1833080	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.44	0.020	N/A	mg/L	08/15/18	08/15/18	1833113	
Phosphorus (Total as P)	HACH 8190	0.32	0.0067	N/A	mg/L	08/24/18	08/29/18	1835070	
2450 W. 247th St.		18H1258-	03 (Water)		Sample Da	te: 08/14/18	8:45 S	ampler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	1.21		N/A	mg/L	08/14/18	08/14/18	1833080	
pH (Field)	Field	8.07		N/A	pH Units	08/14/18	08/14/18	1833080	
Temperature (Field)	Field	26.6		N/A	°C	08/14/18	08/14/18	1833080	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.56	0.020	N/A	mg/L	08/15/18	08/15/18	1833113	
Phosphorus (Total as P)	HACH 8190	0.35	0.0067	N/A	mg/L	08/24/18	08/29/18	1835070	

# Clinical Laboratory of San Bernardino, Inc.



		ıb Project: Lon	nita Distri	bution Ortho,	2nd Week Aug	gust 2018 H	Received: 0	18H1258 8/14/18 16:00 8/30/18
	18H1258-	04 (Water)		Sample Da	nte: 08/14/18	8 8:00 S	ampler: P.	M.
Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field	1.08		N/A	mg/L	08/14/18	08/14/18	1833080	
Field	8.06		N/A	pH Units	08/14/18	08/14/18	1833080	
Field	27.4		N/A	°C	08/14/18	08/14/18	1833080	
HACH 8048	0.47	0.020	N/A	mg/L	08/15/18	08/15/18	1833113	
HACH 8190	0.36	0.0067	N/A	mg/L	08/24/18	08/29/18	1835070	
	18H1258-	05 (Water)		Sample Da	nte: 08/14/18	3 10:12 S	ampler: P.1	M.
Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field	3.7		N/A	mg/L	08/14/18	08/14/18	1833080	
Field	8.25		N/A	pH Units	08/14/18	08/14/18	1833080	
Field	24.8		N/A	°C	08/14/18	08/14/18	1833080	
HACH 8190	0.38	0.0067	N/A	mg/L	08/24/18	08/29/18	1835070	
	Field Field HACH 8048 HACH 8190 Method Field Field Field	Project I8H1258- Method Result Field 1.08 Field 8.06 Field 27.4 HACH 8048 0.47 HACH 8190 0.36 I8H1258- Method Result Field 3.7 Field 8.25 Field 24.8	Sub Project: Lon Project Manager: Mar IBH1258-04 (Water) Method Result Rep. Limit Field 1.08 Field 8.06 Field 27.4 HACH 8048 0.47 0.020 HACH 8190 0.36 0.0067 IBH1258-05 (Water) Method Result Rep. Limit Field 3.7 Field 3.7 Field 3.7 Field 24.8	Sub Project: Lomita Distril         Project: Manager: Mark Anderse         IBH1258-04 (Water)         Method       Result       Rep. Limit       MCL         Method       Result       Rep. Limit       MCL         Field       1.08       N/A         Field       1.08       N/A         Field       27.4       N/A         HACH 8048       0.47       0.020       N/A         HACH 8048       0.47       0.0067       N/A         HACH 8190       0.36       0.0067       N/A         BH1258-05 (Water)       I       MCL         Field       3.7       N/A       N/A         Field       2.4.8       N/A       N/A	Project Manager: Mark Andersen         BH1258-04 (Water)       Sample Date         Method       Result       Rep. Limit       MCL       Units         Field       1.08       N/A       mg/L       N/A       pH Units         Field       8.06       N/A       pH Units       °C         HACH 8048       0.47       0.020       N/A       mg/L         HACH 8190       0.36       0.0067       N/A       mg/L         Method       Result       Rep. Limit       MCL       Units         Method       Result       Rep. Limit       MCL       Units         Field       3.7       N/A       mg/L       M/A         Field       8.25       N/A       pH Units       N/A         Field       2.4.8       N/A       °C       N/A	Sub Project: Lomita Distribution Ortho, 2nd Week Aug         Project Manager: Mark Andersen         18H1258-04 (Water)       Sample Date: 08/14/18         Method       Result       Rep. Limit       MCL       Units       Prepared         Field       1.08       N/A       mg/L       08/14/18         Field       1.08       N/A       pH Units       08/14/18         Field       8.06       N/A       pH Units       08/14/18         Field       27.4       N/A       °C       08/14/18         HACH 8048       0.47       0.020       N/A       mg/L       08/14/18         Method       Result       Rep. Limit       MCL       <	Sub Project: Lomita Distribution Ortho, 2nd Week August 2018         I           Project Manager:         Mark Andersen         I           IBH1258-04 (Water)         Sample Date:         08/14/18         8:00         S           Method         Result         Rep. Limit         MCL         Units         Prepared         Analyzed           Field         1.08         N/A         mg/L         08/14/18         0	Sub Project: Lomita Distribution Ortho, 2nd Week August 2018         Received: 0         0           Project Manager:         Mark Andersen         Reported:         0           18H1258-04 (Water)         Sample Date:         08/14/18         8:00         Sampler:         P.           Method         Result         Rep. Limit         MCL         Units         Prepared         Analyzed         Batch           Field         1.08         N/A         mg/L         08/14/18         08/14/18         1833080           Field         8.06         N/A         pH Units         08/14/18         08/14/18         1833080           Field         8.06         N/A         pH Units         08/14/18         08/14/18         1833080           HACH 8048         0.47         0.020         N/A         mg/L         08/15/18         08/15/18         1833113           HACH 8190         0.36         0.0067         N/A         mg/L         08/14/18         10:12         Sampler:         P.           Method         Result         Rep. Limit         MCL         Units         Prepared         Analyzed         Batch           Field         3.7         N/A         mg/L         08/14/18         08/14/18

ND Analyte NOT DETECTED at or above the reporting limit

Inc.
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Clinical

Chain of Custody 18H125-8

24373 Walnut A         Lomita, CA 9         1003-22         310) 903-22         310) 325-36         310) 325         310) 325         310) 325         310) 325         310) 325         310) 40         325         325         326         326         327         328         328         328         328         328         328         328         328         328	Client		City of Lomita	Sys	stem Number	umber					Ana	Analysis Requested	quested			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Address		24373 Walnut Avenue				10100	72								
#     (310) 903-2343     Destination Laboratory       It     Standard Laboratory     PIG Clinical Laboratory       ft     Standard Laboratory     PIG Clinical Laboratory       ti     Standard Lap/size     PIG Clinical Laboratory       folject     Lomita Distribution Ortho, 2018, 2018     PIG Clinical Laboratory       folject     Lomita Distribution Ortho, 2018, 2018     Pick     Age of the pick       entries     Family     Pi No.     Distribution Ortho, 2018     Pick       entries     Pick     Sample Identification     Narkit     Term.     Clinical Laboratory       fold     0.125     Sample Identification     Narkit     Term.     Clinical Laboratory       018     CSS 2 548325 MOON     Div     Di     NA     3     Z G S     Z H S     N     N     N       018     CSS 2 548325 MOON     Div     Di     NA     3     Z G S     Z H S     N     N     N       018     CSS 2 54832 SMON ST.     Div     Div     NA     3     Z G S     Z H S     N     N     N       019     CWF SPS     Div     Div     NA     3     Z H S     Z H S     N     N       018     CSS 2 54832 SMON ST.     Div     Di     NA     Z H			Lomita, CA 91717					2			0					
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Phone #		(310) 903-2243			Dest	tination La	aboratory			RTI	гот				
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Fax #		(310) 325-3627			X	Clinical La	boratory			10 P	AL	- 1 			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Project		Standard Analysis			RW	QCB Com	pliance			юно	рно		-		
P1 PM.         ELAPT #         ELAPT # <t< td=""><td>Sub Projec</td><td>t</td><td>Lomita Distribution Ortho, 2nd Week August,</td><td></td><td></td><td></td><td>N N N</td><td>1</td><td></td><td></td><td>SPHA'</td><td>SPHA</td><td></td><td></td></t<>	Sub Projec	t	Lomita Distribution Ortho, 2nd Week August,				N N N	1			SPHA'	SPHA				
Time       Sample Identification       Matrix       Type       Preserv       Butter       Temp.       Total $\overline{\beta}^2$ $\beta$	Commonte		0107				ELAP	#			ΓE (α	TE (				
Time       Sample Identification       Mutrix       Type       Preserv       Bottle       Tomb       Tom							108	œ			)-P(	PO				
Time       Sample Identification       Matrix       Type       Preserve       Buttle       Tenum       Caluation       Put       Put <th< td=""><td>Sampled b</td><td>y</td><td>P in.</td><td></td><td></td><td></td><td>-</td><td>)</td><td></td><td></td><td>)4)</td><td>4)</td><td></td><td></td></th<>	Sampled b	y	P in.				-	)			)4)	4)				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Date	Time	Sample Idenitification	Matrix	Type	Preserv	Bottle Number	Temp.	Total Chlorine					Comments / P.S. Codes		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$																
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	8/14/2018	0735	1948 252ND ST.	ΜQ	DI	V/N	3	25.9°	3.40			x				
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	8/14/2018	0525	24632 S. MOON	DW	DI	V/N	4	25.26	2.90	8.16		x				
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	8/14/2018	ORIS	2450 W. 247th ST.	DW	DI	V/N	9	26.60	1.21	807	×	X				
$ \begin{array}{                                    $	8/14/2018		2052 DAWN ST.	DW	DI	V/N	7	SHLS	1.0%	0.00		x				
"     "     "       "     "     "    "     "     "    "			CWPF SP5	DW	DI	N/A	*	.8762	3	8.25		×				
''       '' <th''< th="">       ''       <th''< th="">       ''       ''       <th'< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th'<></th''<></th''<>																
Statute       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         Statistic       Statistic       Matrix: DW-Drinking Water, WW-Waste Water, GW-Ground W         Statistic       Statistic       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         Statistic       Statistic       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         Statistic       Statistic       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         Statistic       Note       Statistic       Statistic         Statistic       Note       Statistic       Statistic         Mile       Note       Note       Statistic       Statistic         Mile       Note       Note       Note       Statistic         Mile       Note       Note       Note       Note       Statistic         Mil			£.													
State       Matrix: DW-Drinking Water, WWWaste Water, SW-Storm Water, GW-Ground W         s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WWWaste Water, SW-Storm Water, GW-Ground W         s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WWWaste Water, SW-Storm Water, GW-Ground W         s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WWWaste Water, SW-Storm Water, GW-Ground W         s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WWWaste Water, SW-Storm Water, GW-Ground W         s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WWWaste Water, SW-Storm Water, GW-Ground W         s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) Other       Print Name / Company       Date / Time         quished By (Sign)       Print Name / Company       Date / Time       Received By (Sign)         qm1(C S       Mct / S       Mct / Hm + Z       S/H/-/S       Mct / C         qm1(C S       Mct / S       Mct / Hm + Z       Samples received: ( ) On ice ( ) Intact ( C       Gustody scals         f       I   Fed X       I   Colden State       I   10her       I   0her       Date / D       D       D       D       D       D       D       D       D       D       D       D       D       D       D       D       D       D       D																
S: (1) Na3-S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         S: (1) Na3-S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         G0 (6) Na2SO3 (7) Cold (8) Other:       Print Name / Company       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W $quished By (Sign)$ Print Name / Company       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W $quished By (Sign)$ Print Name / Company       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, WW-Waste Water, SW-Storm Water, GW-Ground W $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, Time       Received By (Sign) $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, Time       Received By (Sign) $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, Time       Received By (Sign) $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, Time       Received By (Sign) $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, Time       Received By (Sign) $quished By (Sign)$ Print Name / Company       Batrix: DW-Drinking Vater, Time																
s: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         oct       (6) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         oct       (6) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) Other:       Print Name / Company       Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground W         outside       By (Sign)       Print Name / Company       Date / Time       Respired By (Sign)         of Wide       By (Sign)       Print Name / Company       B/14/2018       /       /       /       Recgived By (Sign)         of Wide       By (Sign)       Variable       Sign)       Print Name / Company       B/14/2018       / <th <="" th=""> <th <="" th="">       /       /&lt;</th></th>	<th <="" th="">       /       /&lt;</th>	/       /<														
Sold (6) Na2SO3 (7) Cold (8) Other:       Type       Type       1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.         quished By (Sign)       Print Name / Company       Date / Time       Received By (Sign)         quished By (Sign)       Print Name / Company       Bate / Time       Received By (Sign)         quished By (Sign)       Print Name / Company       Bate / Time       Received By (Sign)         qm/Less       Vet hired       Net hired       Received By (Sign)         file? from       (Arr) S       Mert hired       Samples received: () On ice () Intact () (Gustody seals)         file       11 Fed X       11 Golden State       11 (PS       11 (Dthert)	Preservative	L S: (1) Na <sub>2</sub>	L S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI		Z	latrix: DW	-Drinking	Water, W	/ W-Waste V	Vater, SW-5	Storm	Water, GV	V- Ground	Water, A-Air		
quished By (Sign)Print Name / CompanyDate / TimeRecgived By (Sign) $MUC = 0$ VerticeMC (Sity of Lomita8/14/2018///Not / Not	(5) H2S	SO4 (6) Na	2SO3 (7) Cold (8) Other:				ype- 1-Ro	utine, 2-R	Repeat, 3-F	Replacemer	nt, 4-S	pecial W-	Well D- Di	st.		
$\frac{MME}{Retrick} = \frac{Retrick}{Mer} \frac{MC}{Mer} \frac{1}{1} \frac{1}{1} \frac{1}{2} \frac{1}{2}$	Relin	quished 1	(				Ď	ate / Time	в			Recgived	By (Sign	1_		
$\frac{\sqrt{6}}{\sqrt{6}} = \frac{\sqrt{6}}{\sqrt{6}} = \frac{\sqrt{6}}{\sqrt{6}$	Yatruch .	mie	- /	omita	8/14/2(	18	/		:1	30		aren	Martin	White M		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Chris	1000	2		8-14	Ŕ			4.0	0		met m	X Conta	CH CINR		
Fed X     Golden State     1/PS     Client     Other						Sample	es receiv	$\cup$	On ice	() Intae F	$\widetilde{\zeta}_{\overline{c}}$		ódy seals			
	Shinned Via		I     I     I     I     I     I	SAU 1			Other					Pape	1 of 1			

"Your Water and Wastewater Analysis Solution"

### **APPENDIX B**

METHANE MONITORING LOG

# CITY OF LOMITA PUBLIC WORKS DEPARTMENT



### CYPRESS WATER PRODUCTION FACILITY HANDHELD METHANE LOG READINGS

		A	UGUST 2018	
DATE	DAY	METH	ANE HANDHELD	COMMENTS
8/1/2018	Wed	CH4- 0%	Oxy- 20.9%	
8/2/2018	Thu	CH4- 0%	Oxy- 20.8%	
8/3/2018	Fri	CH4- 0%	Oxy- 20.9%	
8/4/2018	Sat			
8/5/2018	Sun			
8/6/2018	Mon	CH4- 0%	Oxy- 20.7%	
8/7/2018	Tue	CH4- 0%	Oxy- 20.9%	
8/8/2018	Wed	CH4- 0%	Oxy- 20.9%	
8/9/2018	Thu	CH4- 0%	Oxy- 20.9%	
8/10/2018	Fri	CH4- 0%	Oxy- 20.8%	
8/11/2018	Sat			
8/12/2018	Sun			
8/13/2018	Mon	CH4- 0%	Oxy- 20.9%	
8/14/2018	Tue	CH4- 0%	Oxy- 20.9%	
8/15/2018	Wed	CH4- 0%	Oxy- 20.9%	
8/16/2018	Thu	CH4- 0%	Oxy- 20.6%	
8/17/2018	Fri	CH4- 0%	Oxy- 20.7%	
8/18/2018	Sat			
8/19/2018	Sun			
8/20/2018	Mon	CH4- 0%	Oxy- 20.9%	
8/21/2018	Tue	CH4- 0%	Oxy- 20.9%	
8/22/2018	Wed	CH4- 0%	Oxy- 20.9%	
8/23/2018	Thu	CH4- 0%	Oxy- 20.9%	
8/24/2018	Fri	CH4- 0%	Oxy- 20.8%	
8/25/2018	Sat			
8/26/2018	Sun			
8/27/2018	Mon	CH4- 0%	Oxy- 20.9%	
8/28/2018	Tue	CH4- 0%	Oxy- 20.9%	
8/29/2018	Wed	CH4- 0%	Oxy- 20.8%	
8/30/2018	Thu	CH4- 0%	Oxy- 20.8%	
8/31/2018	Fri	CH4- 2%	Oxy- 20.8%	
ND- Non Detect				
CH4- Methane				

Oxy- Oxygen

Day Off/Holiday- Red

# **APPENDIX C**

NITRIFICATION MONITORING DATA SUMMARY

### <sup>1</sup> MONTHLY NITRIFICATION MONITORING SUMMARY REPORT CITY OF LOMITA, System No. 1910073 --- Month, Year: <u>August 2018</u>

# Co	de Sai	mple ID	Location	Sample Date	Тетр	рН	Total Chlorine	Free Chlorine	Total Free Nitrite <sup>3</sup>	Nitrate	Coliform <sup>2</sup>	HPC	Zone	Comments
Units	/Other	rs →		MM/DD/YYYY	°C		mg/L	mg/L	mg/L mg/L mg/L	🖄 mg/L	P/A	CFU/ml		
1 [	5 51	13-003	1948 W 252nd St	8/8/2018	26.4	8.19	3.30	0.06	0.006	ND	А	1	1	Well/MWD Blend
2 [	) S1	13-004	24632 S Moon Ave	8/8/2018	25.9	8.12	2.80	0.10	0.020	ND	A	8	1	Well/MWD Blend
3 0	) S1	13-008	25417 Pennsylvania Ave	8/8/2018	29.3	8.13	3.30	0.09	0.53 0.06 0.010	🔅 ND	А	ND	1	Well/MWD Blend
4 [		А	2052 Dawn St	8/8/2018	27.3	8.06	1.24	0.06	0.24 0.09 0.040	8 ND	А	35	1	Well/MWD Blend
5 C			Reservoir SP5	8/8/2018	24.4	8.26	3.45	0.06	0.61 0.05 0.006	ND	A	3.0	1	Well/MWD Blend
6 0	> S1	13-001	1912 W 259th St	8/8/2018	27.0	8.53	2.40	0.08	0.006 0.08 0.006	S ND	А	ND	2	MWD Only
7 0	> S1	13-002	26314 S Monte Vista Ave	8/8/2018	24.8	8.53	2.30	0.09	0.08 0.08 0.006		A	ND	3	MWD Only
8 [	) S1	13-005	2500 PCH	8/8/2018	28.0	8.48	1.80	0.08	0.009 0.009	ND	A	ND	2	MWD Only
1 [	) S1	13-003	1948 W 252nd St	8/14/2018	25.9	8.22	3.40	0.07	0.62 0.10 0.007	🖉 ND	А	ND	1	Well/MWD Blend
2 [	) S1	13-004	24632 S Moon Ave	8/14/2018	25.2	8.16	2.90	0.04	0.019	🖏 ND	А	7	1	Well/MWD Blend
3 [	> S1	13-008	25417 Pennsylvania Ave	8/14/2018	27.4	8.17	3.30	0.07	0.62 0.01 0.013	ND ND	A	ND	1	Well/MWD Blend
4 C	>	А	2052 Dawn St	8/14/2018	27.4	8.06	1.08	0.03	0.33 0.21 0.061	ND	А	56	1	Well/MWD Blend
5 C	>		Reservoir SP5	8/14/2018	24.8	8.25	3.70	0.06	0.78 0.11 0.006	ND	А	ND	1	Well/MWD Blend
6 0	) S1	13-001	1912 W 259th St	8/14/2018	26.4	8.54	2.00	0.05	0.044 0.09 0.011	ND	А	ND	2	MWD Only
7 0	> S1	13-002	26314 S Monte Vista Ave	8/14/2018	24.6	8.56	2.04	0.04	0.50 0.09 0.007	ND ND	А	ND	3	MWD Only
8 0	) S1	13-005	2500 PCH	8/14/2018	26.0	8.55	2.01	0.05	0.47 0.11 0.017	ND	А	NÐ	2	MWD Only
<u> </u>										•				
1 [		13-003	1948 W 252nd St	8/21/2018	26.5	8.23	3.10	0.08	0.58 0.11 0.005	ND ND	A	ND	1	Well/MWD Blend
2 0			24632 S Moon Ave	8/21/2018	25.6	8.15	2.80	0.06	0.53 0.11 0.013	ND	A	4	1	Well/MWD Blend
3 E	_		25417 Pennsylvania Ave	8/21/2018	26.5	8.20	3.30	0.06	0.59 0.03 0.008	ND	A	ND	1	Well/MWD Blend
4 0			2052 Dawn St	8/21/2018	27.3	8.06	1.07	0.08	0.32 0.11 0.063	ND	A	45	1	Well/MWD Blend
5 0			Reservoir SP5	8/21/2018	24.6	8.26	3.58	0.08	0.008 0.03 0.008	ND	A	ND	1	Well/MWD Blend
6 0	_		1912 W 259th St	8/21/2018	27.8	8.55	2.30	0.06	0.48 0.03 0.009	ND	А	ND	2	MWD Only
			26314 S Monte Vista Ave	8/21/2018	24.7	8.61	2.30	0.05	0.49 0.09 0.09 0.005	ND	А	ND	3	MWD Only
8 0			2500 PCH	8/21/2018	25.6	8.60	2.20	0.05	0.016	ND ND	A	ND	2	MWD Only
		10 000									·			·,
1 0	51	13-003	1948 W 252nd St	8/28/2018	24.8	8.16	3.60	0.06	0.66 0.05 0.007	ND ND	A	NÐ	1	Well/MWD Blend
2 0	_		24632 S Moon Ave	8/28/2018	23.8	8.13	3.10	0.09	0.62 0.10 0.013	ND	А	ND	1	Well/MWD Blend
3 0			25417 Pennsylvania Ave	8/28/2018	25.3	8.15	3.60	0.07	0.66 0.07 0.011	ND ND	A	ND	1	Well/MWD Blend
4 0		-	2052 Dawn St	8/28/2018	25.6	8.00	1.08	0.07	0.30 0.10 0.040	ND	A	22	1	Well/MWD Blend
5 0			Reservoir SP5	8/28/2018	23.8	8.21	3.90	0.06	0.78 0.01 0.008	ND	А	ND	1	Well/MWD Blend
6 E			1912 W 259th St	8/28/2018	24.2	8.68	2.30	0.09	0.49 0.009	ND	A	ND	2	MWD Only
7 0			26314 \$ Monte Vista Ave	8/28/2018	23.4	8.70	2.30	0.04	0:49 0.03 0.006	ND	A	ND	3	MWD Only
8 [			2500 PCH	8/28/2018	23.7	8.70	2.40	0.09	0.047 0.04 0.011	~	A	ND	2	MWD Only
0	. [ ] ]	13-005	2000 FCIT	0/20/2010	20.7	0.70	2.40	0.05	The strength of the state of the state of the strength of the					
1 0	) (C1	13-003	1948 W 252nd St					1		2-10 2-10 2-10			1	Well/MWD Blend
2 0			24632 S Moon Ave										1	Well/MWD Blend
3 C	-		25417 Pennsylvania Ave	<u>├</u>					CALLER & LANDAR	-			1	Well/MWD Blend
4 C	_		2052 Dawn St	<u> </u>				<u> </u>			1		1	Well/MWD Blend
5 C			Reservoir	<u> </u>			<u></u>	1					1	Well/MWD Blend
6 D			1912 W 259th St					<u> </u>					2	MWD Only
	_		26314 S Monte Vista Ave					<u> </u>		2011 2014 2014			3	MWD Only
8 D			2500 PCH					1			† [		2	MWD Only
		12-002	200 FUN	I					[10] Brance Constraints, Name Sciences and Branch Michael Sciences (Springer, 2008).	0.	I		J	

Notes: Report Due to DDW by the 10th of the following month. This Report can be used for the routine weekly monitoring (one Report per month) as well as for daily monitoring when there is actual and potential for nitrification (about four or five Reports per month, in this case).

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

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