CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

June 2018

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CITY COUNCIL

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



ADMINISTRATION

RYAN SMOOT
CITY MANAGER

July 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 June 1 through June 30, 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 June 2018.

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

Sincerely,

Mark Andersen

Field Operations Manager

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 June 2018 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 438 gpm and 562 gpm from MWD. The blend ratio for month was 44% Well water and 56% MWD water. See Table 1 below for production totals for the month of June 2018.

Table 1. Monthly Production Totals.

	Production for June 2018						
Well No. 5	56:97 a	c-ft	18,563,086 (gallons)				
MWD.	73:10 a	eff	23,820,000 (gallons)				
Combined Total	130.07 a	c-ft	42,383,086 (gallons)				
Daily	4.34 a	c-ft/day	1,412,770 (gallons/day)				

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of June 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 650 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 890 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 300 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 0.24 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 June 2018 in Appendix B.

E3-5 ODOR

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

E4. NITRIFICATION MONITORING

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

F. TABLES

Table 2. Monitoring Results for SP1, SP2, and SP3 Sample Locations.

		SP1, W	Vell Raw	/ Water	Discha	irge		Pres	Combi sure Fi Effluent	ilter	SP3, /		nloramin reservoii		tatic mix	ker;
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
6/6/2018											ND	300	ND	50	5	15
6/13/2018	200	300	170	50	10	15	А	Α	ND	500	ND	300	ND	50	7.5	15
6/20/2018											ND	300	ND	50	5	15
6/27/2018											ND	300	ND	50	5	15

Notes:

Monthly- Orange; Weekly- Yellow

A – Absent

ND – Non Detect

*Per the SWRCB Drinking Water "Chemicals and Contaminants in Drinking Water" Regulations

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

Date,	SP2 SP3					SP4		SP5			
week of	Free CI	Free CI	Total CI	Total NH₃	Free CI	Total CI	Total NH₃	Free CI	Total CI	Total NH ₃	
6/6/2018	6.94	1.11	6.98	0.96	0.55	4.79	0.88	0.12	3.59	0.65	
6/13/2018	7.01	1.82	6.93	1.04	0.50	4.59	0.76	0.22	3.64	0.71	
6/20/2018	5.99	0.99	7.30	0.93	0.51	4.85	0.80	0.07	3.52	0.69	
6/27/2018	6.49	0.98	8.12	0.84	0.57	4.69	0.69	0.12	3.54	0.68	

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

	TDS, mg/L			T.O.	N.	Hardness, mg/L				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
6/6/2018			710	500-750	2	3						0.34
6/13/2018	890	460	620	500-750	2	3	370	170	300	180-250	2	0.22
6/20/2018			670	500-750	2	3						0.16
6/27/2018			600	500-750	2	3						0.23
Average			650	500-750	2	3						0.24

Monthly- <u>Orange</u>; Weekly- <u>Yellow</u> 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 – June 2018 Cypress Water Production Facility City of Lomita; System No. 1910073

		The state of the s		Name and Address of the Owner, where the Owner, which is the Owner,				
Sample Locations	Frequency	MCL/	6/6	6/13	6/23	6/30		Comments
and Parameters		Goal	1stWk	2 nd Wk	3rdWk	4 th Wk		and/or
								Other Info.
			or Mo.					
			Result					
			(date)					
SP1 Also called								
TDS, ppm	Monthly	See SP5	890	Operations	Data/Inforn	nation:		*Chlorine injected after SP1, before entering
Hardness	Monthly	See SP5	6/13 370	CWPF opera	tion days			the greensand filter.
i iaiuiiess	Worlding		6/13	0 11/11 = 5	.	100		
CH4, ppm	Monthly	See SP5	2.0	On Well 5: L	Daily average t	10w – 438 gpm	i; total prod.	
lana anh	Monthly	See SP3	6/13	Combined V	Vell 5/MWD da	nta: Average V	/ell 5: MWD	
Iron, ppb	Monthly	366 3F3	200 6/13	blend Ratio – 130.07 AF	- 44% WELL: 5	66% MWD; tota	al prod	
Manganese, ppb	Monthly	See SP3	170	130.07 AF				
			6/13	Chlorine Do	sage: N/A*			
Color, units	Monthly	See SP3	10		0			ľ
Total Coliform, P or A	Monthly	A	6/13 A					
Total Colliditi, T of A	Worlding	^	6/13					
SP2 Also called	Filter Efflu	ent or Si	te#3.		73.5			
Total Coliform, P or A	Monthly	Α	Α					*Ammonia added after
HPC,MPN/100 ml	Monthly	500	ND	Ammonia D	osage: N/A*			filter effluent
Free Cl Res, ppm	Continuous	Average:	6.60 ; Ran	ge: 5.99 - 7	.01			1
SP3 Also called	the Site Af	ter Chlor	amination	a & Before	MWD BI	ending or	Site#4.	
Iron, ppb	Weekly	ND	ND	ND	ND	ND		
ii Oi i, ppb	VVCCKIY	IND	ND	IND	IND	IAL		ı
		50	ND	ND	ND	ND		1
Manganese, ppb Color	Weekly Weekly							
Manganese, ppb	Weekly	50 15 Free Cl: A	ND 5 Average: 1.23	ND 7.5 3; Range: 0.9	ND 5 98 – 1.82	ND		
Manganese, ppb Color	Weekly Weekly	50 15 Free Cl: A Total Cl: A	ND 5 Average: 1.23 Average: 7.3	ND 7.5 3; Range: 0.3 3; Range: 6	ND 5 98 – 1.82 .93 – 8.12	ND		
Manganese, ppb Color Free and Total Cl Res, ppm	Weekly Weekly Continuous	50 15 Free CI: A Total CI: A Ammonia	ND 5 Average: 1.23 Average: 7.3 : Average: 0	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range:	ND 5 98 – 1.82 5.93 – 8.12 0.84 – 1.04	ND 5		
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called	Weekly Weekly Continuous	50 15 Free Cl: A Total Cl: A Ammonia	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site	ND 7.5 3; Range: 0.3; Range: 6 94; Range:	ND 5 98 – 1.82 5.93 – 8.12 0.84 – 1.04	ND 5	int/Phosp	phate Injection.
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection	Weekly Weekly Continuous Reservoir	50 15 Free CI: A Total CI: A Ammonia Influent of Phosphat	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0	ND 7.5 3; Range: 0.3; Range: 6.94; Range: • Well 5/M 0.52 mg/L	ND 5 98 – 1.82 5.93 – 8.12 0.84 – 1.04 WD Water	ND 5	int/Phosp	
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res,	Weekly Weekly Continuous	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A	ND 5 Average: 1.23 Average: 7.3 : Average: 0. or the Site e Dosage: 0 Average: 0.5	ND 7.5 3; Range: 6.94; Range: 6.94; Range: 6.52 mg/L 4; Range: 0	ND 5 98 - 1.82 1.93 - 8.12 0.84 - 1.04 WD Water	ND 5	int/Phosp	CI/NH3 Ratio:
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection	Weekly Weekly Continuous Reservoir	50 15 Free CI: A Total CI: A Ammonia Influent of Phosphat Free CI: A Total CI: A	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0 Average: 0.5 Average: 4.7	ND 7.5 3; Range: 6.94; Range: 6.94; Range: 6.52 mg/L 4; Range: 0.52 mg/L	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85	ND 5	int/Phosp	
Manganese, ppb Color Free and Total Cl Res, ppm SP4 Also called Phosphate Injection Free and Total Cl Res, ppm	Weekly Weekly Continuous Reservoir Continuous	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0	ND 7.5 3; Range: 0.9 3; Range: 6 94; Range: 6 94; Range: 1 0.52 mg/L 4; Range: 0 0; Range: 4 .79; Range:	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 55 - 4.85 0.69 - 0.94	ND 5		CI/NH3 Ratio: 5.91
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called	Weekly Weekly Continuous Reservoir Continuous Reservoir	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5.	ND 7.5 3; Range: 0.9 3; Range: 6 94; Range: 6 94; Range: 0 0.52 mg/L 4; Range: 0 0; Range: 4 .79; Range: SP5 disc	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in	ND 5		CI/NH3 Ratio: 5.91
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called	Weekly Weekly Continuous Reservoir Continuous	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0	ND 7.5 3; Range: 0.9 3; Range: 6 94; Range: 6 94; Range: 1 0.52 mg/L 4; Range: 0 0; Range: 4 .79; Range:	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 55 - 4.85 0.69 - 0.94	ND 5		CI/NH3 Ratio: 5.91
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal:	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5.	ND 7.5 3; Range: 0.9 3; Range: 6 94; Range: 6 0.52 mg/L 4; Range: 0 0; Range: 4 .79; Range: 4 620	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in	ND 5		CI/NH3 Ratio: 5.91
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm	ND 5 Average: 1.23 Average: 7.3 : Average: 0. or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5.	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 0 0.52 mg/L 4; Range: 0 0; Range: 4 79; Range: 4 79; Range: 6 620 300	ND 5 98 - 1.82 9.93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in	Blend Po		CI/NH3 Ratio: 5.91 Stribution system
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm	ND 5 Average: 1.23 Average: 7.3 : Average: 0 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5.	ND 7.5 3; Range: 0.9 3; Range: 6 94; Range: 6 0.52 mg/L 4; Range: 0 0; Range: 4 .79; Range: 4 620	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in	ND 5		CI/NH3 Ratio: 5.91 Stribution system % CH4 Removal:
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal: 180-250ppm Goal: from	ND 5 Average: 1.23 Average: 7.3 : Average: 0. or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5.	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 0 0.52 mg/L 4; Range: 0 0; Range: 4 79; Range: 4 79; Range: 6 620 300	ND 5 98 - 1.82 9.93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in	Blend Po		CI/NH3 Ratio: 5.91 Stribution system
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A	ND 5 Average: 1.23 Average: 7.3 : Average: 0. or the Site e Dosage: 0 Average: 4.7 : Average: 0 or Site#5. 710 0.34 2 Average: 0.1	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 9 4; Range: 0 0; Range: 4 79; Range: 4 620 300 0.22 2 4; Range: 0.	ND 5 98 - 1.82 0.93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22	Blend Po		CI/NH3 Ratio: 5.91 Stribution system % CH4 Removal:
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Total CI: A	ND 5 Average: 1.23 Average: 7.3 : Average: 0. or the Site e Dosage: 0. Average: 4.7 : Average: 0.5 Average: 0.1 0.34 2 Average: 0.1 Average: 0.1 Average: 0.3	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 9 4; Range: 0 0; Range: 4 79; Range: 4 620 300 0.22 2 4; Range: 0 7; Range: 3	ND 5 98 - 1.82 0.93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64	Blend Po		CI/NH3 Ratio: 5.91 stribution system % CH4 Removal: 88.1%
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 180-250ppm Goal: from PA 1 Free CI: A Total CI: A Ammonia	ND 5 Average: 1.23 Average: 7.3 : Average: 0. or the Site e Dosage: 0. Average: 4.7 : Average: 0.5 Average: 0.1 0.34 2 Average: 0.1 Average: 0.1 Average: 0.3	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 9 4; Range: 0 0; Range: 4 79; Range: 4 620 300 0.22 2 4; Range: 0.	ND 5 98 - 1.82 0.93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64	Blend Po		CI/NH3 Ratio: 5.91 stribution system % CH4 Removal: 88.1% CI/NH3 Ratio:
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir.	ND 5 Average: 1.23 Average: 7.3 : Average: 0.5 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5. 710 0.34 2 Average: 0.1 Average: 3.5 : Average: 0	ND 7.5 3; Range: 0.94; Range: 6 94; Range: 6 Well 5/M 0.52 mg/L 4; Range: 4 .79; Range: 6	ND 5 98 - 1.82 9.93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64 0.65 - 0.72	Blend Po		CI/NH3 Ratio: 5.91 stribution system % CH4 Removal: 88.1% CI/NH3 Ratio:
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir. Goal -	ND 5 Average: 1.23 Average: 7.3 : Average: 0.5 or the Site e Dosage: 0 Average: 0.5 Average: 4.7 : Average: 0 or Site#5. 710 0.34 2 Average: 0.1 Average: 0.3 2 Average: 0.1 CH4 Average: 0	ND 7.5 3; Range: 0.94; Range: 6 94; Range: 6 Well 5/M 0.52 mg/L 4; Range: 4 .79; Range: 6	ND 5 98 – 1.82 9.93 – 8.12 0.84 – 1.04 WD Water .50 – 0.60 .55 – 4.85 0.69 – 0.94 charges in 670 0.16 2 07 – 0.22 50 – 3.64 0.65 – 0.72	Blend Po		CI/NH3 Ratio: 5.91 stribution system % CH4 Removal: 88.1% CI/NH3 Ratio:
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using Portable Device	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log)	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir. Goal - LEL	ND 5 Average: 1.23 Average: 7.3 : Average: 0.5 or the Site e Dosage: 0 Average: 0.5 Average: 0.5 Average: 0 Or Site#5. 710 0.34 2 Average: 0.1 Average: 0.1 Average: 3.5 : Average: 0 CH4 Aver	ND 7.5 3; Range: 0.3; Range: 6.94; Range: 6 94; Range: 9 Well 5/M 0.52 mg/L 4; Range: 0 0; Range: 4.79; Range: 4.79; Range: 4.79; Range: 4.79; Range: 620 300 0.22 4; Range: 0.7; Range: 3.69; Range: 0.93% nge: 0% - 49	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64 0.65 - 0.72	ND 5 Blend Po to Zone 1 600 0.23 2	of the dis	CI/NH3 Ratio: 5.91 Stribution system % CH4 Removal: 88.1% CI/NH3 Ratio: 5.17
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using Portable Device SP 6 MWD Source	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) Ce Feeding	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir. Goal - LEL	ND 5 Average: 1.23 Average: 7.3 : Average: 0.5 or the Site e Dosage: 0 Average: 0.5 Average: 0.5 Average: 0 Or Site#5. 710 0.34 2 Average: 0.1 Average: 0.1 Average: 3.5 : Average: 0 CH4 Aver	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 9 0; Range: 4 79; Range: 4 79; Range: 4 79; Range: 4 79; Range: 0 7;	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64 0.65 - 0.72	ND 5 Blend Po to Zone 1 600 0.23 2	of the dis	CI/NH3 Ratio: 5.91 Stribution system % CH4 Removal: 88.1% CI/NH3 Ratio: 5.17
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using Portable Device SP 6 MWD Source TDS, ppm	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) Ce Feeding Monthly	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir. Goal - LEL	ND 5 Average: 1.23 Average: 7.3 : Average: 0.5 or the Site e Dosage: 0 Average: 0.5 Average: 0.5 Average: 0 Or Site#5. 710 0.34 2 Average: 0.1 Average: 0.1 Average: 3.5 : Average: 0 CH4 Aver	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 0.0; Range: 4 79; Range: 4 620 300 0.22 2 4; Range: 0.7; Range: 3.69; Range: 0.93% nge: 0% - 49 6d Zone 2 460	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64 0.65 - 0.72	ND 5 Blend Po to Zone 1 600 0.23 2	of the dis	CI/NH3 Ratio: 5.91 Stribution system % CH4 Removal: 88.1% CI/NH3 Ratio: 5.17
Manganese, ppb Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the C CH4 ppmv; using Portable Device	Weekly Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) Ce Feeding	50 15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia eservoir. Goal - LEL	ND 5 Average: 1.23 Average: 7.3 : Average: 0.5 or the Site e Dosage: 0 Average: 0.5 Average: 0.5 Average: 0 Or Site#5. 710 0.34 2 Average: 0.1 Average: 0.1 Average: 3.5 : Average: 0 CH4 Aver	ND 7.5 3; Range: 0.3 3; Range: 6 94; Range: 6 94; Range: 9 0; Range: 4 79; Range: 4 79; Range: 4 79; Range: 4 79; Range: 0 7;	ND 5 98 - 1.82 .93 - 8.12 0.84 - 1.04 WD Water .50 - 0.60 .55 - 4.85 0.69 - 0.94 charges in 670 0.16 2 07 - 0.22 50 - 3.64 0.65 - 0.72	ND 5 Blend Po to Zone 1 600 0.23 2	of the dis	CI/NH3 Ratio: 5.91 Stribution system % CH4 Removal: 88.1% CI/NH3 Ratio: 5.17

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

APPENDIX A

LABORATORY RESULTS



19 June 2018 Clinical Lab No.: 18F0506

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

Project Name: Standard Analysis

Sub Project: CWPF 1st Week of June, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 06/06/18 . 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,

Stu Styles

Client Services Manager

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Lomita, City ofProjectStandard AnalysisWork Order:18F050624373 Walnut AvenueSub Project:CWPF 1st Week of June, 2018 Compliance Sampling Received:06/06/18 14:45Lomita CA, 91717Project Manager:Mark AndersenReported:06/19/18

Reservoir Influent Site #3		18F0506-0	01 (Water)		Sample Da	te: 06/06/18	6:20 S	ampler:	Oscar Cambero
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	8.5		N/A	mg/L	06/06/18	06/06/18	1823108	
pH (Field)	Field	7.72		N/A	pH Units	06/06/18	06/06/18	1823108	
Temperature (Field)	Field	22.1		N/A	°C	06/06/18	06/06/18	1823108	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	06/06/18	06/06/18	1823119	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/11/18	06/11/18	1823181	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/11/18	06/11/18	1823181	
Reservoir Effluent Site #5		18F0506-0	02 (Water)		Sample Da	te: 06/06/18	6:15 S	ampler:	Oscar Cambero
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.9		N/A	mg/L	06/06/18	06/06/18	1823108	
pH (Field)	Field	8.07		N/A	pH Units	06/06/18	06/06/18	1823108	
Temperature (Field)	Field	20.9		N/A	°C	06/06/18	06/06/18	1823108	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	06/06/18	06/06/18	1823119	
Odor Threshold	EPA 140.1-M	2	1	3	TON	06/06/18	06/06/18	1823119	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	710	5.0	1000	mg/L	06/13/18	06/14/18	1824085	
ND Analyte NOT DETECTED at or	above the reporting limit								



June 15, 2018

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



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

LABORATORY TEST RESULTS

Project Reference: 18F0506 Lab Number:

J060801-01

Enclosed are results for sample(s) received 6/08/18 by Air Technology Laboratories. Samples were received intact and properly chilled. 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

JU6080 1-01

	months and the second s	
	18F0506	

SENDING LABORATO	DRY:	RECEIVING LAB	BORATORY:	11
Clinical Laboratory of 21881 Barton Road Grand Terrace, CA 923 Phone: 909.825.7693 Fax: 909.825.7696 Project Manager: Stu	313	Air Technology L 18501 East Gale A City of Industry, (Phone:(626) 964- Fax:	Avenue Suite 130 CA 91748	
[] glaubig@clinical-la	transfer those samples with PS code	es provided [] Yes [v	ab.com No No	
Turn Around Time Subcontract Comments	[] 10 Days [\sqrt{5 Days} [] 0	Other Days	, 110	
Analysis			Commen	nts
Sample ID: Reservoir I	Effluent Site #5 / 18F0506-02	Sampled: 06/06/18 06:15 Water	PS Code: WTX ID:	
Methane RSK175	/		Report in	mg/L
Containers Supplied: 40ml Amber Vial (B)	40ml Amber V	ial (C)		
7		er i er e i er e e e e	1811 (6 17 6 27 6 27 6	
			4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
			g G	

Received By Date / Time

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

18F0506

Date Received:

06/08/18

Matrix:

Water

Reporting Units: mg/L

RSK175

Lab No.:	J06080	01-01			
Client Sample I.D.:	Reservoir Site #5/18I				
Date/Time Sampled:	6/6/18	6:15			
Date/Time Analyzed:	6/14/18	10:26			
QC Batch No.:	1806130	GC8A2			
Analyst Initials:	AS	S			
Dilution Factor:	1.0)			
ANALYTE	Result mg/L	RL mg/L			
Methane	0.34	0.0010			

ND =	Not	Detected	(helow	RIA)

RL = Reporting Limit

Reviewed/Approved By:

Operations Manager

The cover letter is an integral part of this analytical report

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Λ		

QC Batch No.:

180613GC8A2

Matrix:

Water

Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab	No.:	Metho	d Blank	I	LCS	L	CSD		
Date/Time An	alyzed:	6/13/1	8 15:30	6/13/	18 15:57	6/13/	18 16:10		
Analyst Init	ials:	I	AS		AS		AS		
Data	file:	13jı	un042	13j	un044	13j	un045		
Dilution Fac	ctor:	1	1.0		1.0		1.0		
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	110	70-130%	105	70-130%	4.3	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:

Operations Manager

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

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Chain of Custody

18 F0506										Comments / P.S. Codes								lype- 1-Routine, Z-Repeat, 3-	Print Name \Company	Estal Mahin	np6.5 ()FXC	
	ested						dor					X						g Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air Replacement 4-Special W-Well D- Dist.			Lustody seals Temp	Page_1_ of_1_
	Analysis Requested		M	eth	ane		ter olor		SK175	5) 	×	×	×					/- Ground 4-Special				
	nalysi					Disso					×	×		-		+	-	er, GW		7	*	-
	A					on / M	langa	anese	-	Lotal	_	5.9	29					<i>N</i> -Storm Water, GV Replacement,			In ice	
9				ory	ory	9				Temp.	1.22	20.3	20.9					te Water, Si	Time	5.30	Samples received?	
-9		073		Laboral	Laborat	omplian	Si	ELAP#	1088	Hd	7 t t	C 0 7	60.0					VW-Was	Pate / Time	7.7	mples	Other
,	mber	1910073		Destination Laboratory	[X] Clinical Laboratory	RWQCB Compliance	yes	ELA	10	Preserv	A/N	ΑX	7					ng Water, V		181		7
	System Number			7						Type	1W	<u>×</u>	<u>*</u>					Matrix: DW-Drinkin		6/6/2018		Clien
	S									Matrix	DW	NG	DW,					Matrix:		18 B		I I UPS
	City of Lomita	24373 Walnut Avenue	Lomita, CA 91717	(310)903-2243		Standard Analysis	CWPF 1st week of June, 2018 Compliance	Sampling	For TC/EC/BACT see weekly Distro CoC	Sample	Reservoir Ir	Reservoir Effluent Site #5	Reservoir Effluent Site #5 \mathcal{R}					Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI	By (Sign) Print Name / Company	City of Lor		Fed X Golden State
	Client	Address		Phone #	Fax#	Project	100	sub Project	Comments	Date Time	**	6/6/2018 6/15	\$1.05/9/9					ervatives: (1) Na ₂	Retinguished By (Sign)		Comments:	Shipped Via



26 June 2018 Clinical Lab No.: 18F1188

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

Project Name: Standard Analysis

Sub Project: CWPF Monthly Compliance Samples, 2nd Wk of June

Enclosed are the results of the analyses for samples received at the laboratory on 06/13/18 . 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,

Stu Styles

Client Services Manager

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Lomita, City ofProject:Standard AnalysisWork Order:18F118824373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of Jun/Received:06/13/18 15:00

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 06/26/18

Raw Water Site #1		18F1188-0	01 (Water)		Sample Da	te: 06/13/18	8:22	Sampler: P	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	06/13/18	06/13/18	1824147	
pH (Field)	Field	7.68		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	22.5		N/A	°C	06/13/18	06/13/18	1824147	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
E. Coli	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
Plate Count	SM9215B	42	1	500	CFU/ml	06/13/18	06/15/18	1824184	HT-08
General Physical Analyses									
Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	06/13/18	06/13/18	1824178	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	370	6.6	N/A	mg/L	06/20/18	06/20/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	890	5.0	1000	mg/L	06/20/18	06/21/18	1825074	
<u>Metals</u>									
Calcium (Ca)	EPA 200.7	97	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
Iron (Fe)	EPA 200.7	200	100	300	ug/L	06/18/18	06/18/18	1825016	
Magnesium (Mg)	EPA 200.7	32	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
Manganese (Mn)	EPA 200.7	170	20	50	ug/L	06/18/18	06/18/18	1825016	
Filter Effluent (Free Chlorine) Site #2		18F1188-0	02 (Water)		Sample Da	te: 06/13/18	8:20	Sampler: P	Patrick McCu
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	7.6		N/A	mg/L	06/13/18	06/13/18	1824147	
pH (Field)	Field	7.75		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	22.5		N/A	°C	06/13/18	06/13/18	1824147	
<u> Iicrobiology Analyses</u>									
Total Coliform	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
E. Coli	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
Plate Count	SM9215B	ND	1	500	CFU/ml	06/13/18	06/15/18	1824184	HT-08



Lomita, City ofProject:Standard AnalysisWork Order:18F118824373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of Jun/Received:06/13/18 15:00Lomita CA, 91717Project Manager:Mark AndersenReported:06/26/18

Filter Effluent (Total Chlorine) Site #3		18F1188-0	3 (Water)		Sample Dat	te: 06/13/18	8:30 S	Sampler:	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	7.1		N/A	mg/L	06/13/18	06/13/18	1824147	
pH (Field)	Field	7.75		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	22.5		N/A	°C	06/13/18	06/13/18	1824147	
General Physical Analyses									
Apparent Color	SM 2120BM	7.5	3.0	15	Color Units	06/13/18	06/13/18	1824178	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/18/18	06/18/18	1825016	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/18/18	06/18/18	1825016	
Zone #2 Site #6		18F1188-0	4 (Water)		Sample Dat	te: 06/13/18	8:25 S	Sampler:	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.3		N/A	mg/L	06/13/18	06/13/18	1824147	
pH (Field)	Field	8.55		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	20.6		N/A	°C	06/13/18	06/13/18	1824147	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	170	6.6	N/A	mg/L	06/20/18	06/20/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	460	5.0	1000	mg/L	06/20/18	06/21/18	1825074	
<u>Metals</u>									
Calcium (Ca)	EPA 200.7	42	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
Magnesium (Mg)	EPA 200.7	17	1.0		-	06/20/18	06/20/18	1825090	



Lomita, City ofProject:Standard AnalysisWork Order:18F118824373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of Jun/Received:06/13/18 15:00Lomita CA, 91717Project Manager:Mark AndersenReported:06/26/18

Reservoir Effluent Site #5		18F1188-0	05 (Water)		Sample Da	of/13/1	8 8:45 Sa	mpler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.5		N/A	mg/L	06/13/18	06/13/18	1824147	
pH (Field)	Field	8.06		N/A	pH Units	06/13/18	06/13/18	1824147	
Temperature (Field)	Field	21.9		N/A	°C	06/13/18	06/13/18	1824147	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
E. Coli	SM 9223	A		N/A	P/A	06/13/18	06/14/18	1824122	
Plate Count	SM9215B	ND	1	500	CFU/ml	06/13/18	06/15/18	1824184	HT-08
General Physical Analyses									
Odor Threshold	EPA 140.1-M	2	1	3	TON	06/13/18	06/13/18	1824178	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	300	6.6	N/A	mg/L	06/20/18	06/20/18	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	ND	0.40	10	mg/L	06/14/18	06/14/18	1824119	
Total Filterable Residue/TDS	SM 2540C	620	5.0	1000	mg/L	06/20/18	06/21/18	1825074	
Metals									
Calcium (Ca)	EPA 200.7	75	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	
Magnesium (Mg)	EPA 200.7	26	1.0	N/A	mg/L	06/20/18	06/20/18	1825090	

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



June 22, 2018

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15

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: 18F1188 Lab Number: J061506-01

Enclosed are results for sample(s) received 6/15/18 by Air Technology Laboratories. Samples were received intact and properly chilled. 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.

(058

Date / Time

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino 18F1188

JOG1506-0102

SENDING LABORATORY:		RECEIVING L	ABORATORY:		
Clinical Laboratory of San Bernard	dino	Air Technology	y Labs		
21881 Barton Road		77.5	le Avenue Suite 130		
Grand Terrace, CA 92313		City of Industry	y, CA 91748		¥ *
Phone: 909.825.7693		Phone :(626) 9	64-4032		
Fax: 909.825.7696		Fax:			
Project Manager: Stu Styles					
Please email results to Project Mar [] glaubig@clinical-lab.com [\]		m [] nelson@clinica	l-lab.com		-
California EDT transfer the Water Trax Upload Client:	ose samples with PS code	es provided [] Yes [] Yes	[V]No		
Turn Around Time [] 10 Day	ys [5 Days [] (Other Days			
Subcontract Comments:					
	*				
Analysis			C	omments	
Sample ID: Raw Water Site #1 / 181	F1188-01	Sampled: 06/13/18 08:2 Water	22 PS Code: WTX ID:		
Methane RSK175		· .	R	eport in mg/L	avec e
Containers Supplied:					
0ml Amber Vial (B)	40ml Amber Vi	al (C)			
Sample ID: Reservoir Effluent Site	#5 / 18F1188-05	Sampled: 06/13/18 08:4	45 PS Code:		
		Water	WTX ID:		
, V	2				104
Methane RSK175	ger of the first of	A N FIN	Ke	eport in mg/L	
Containers Supplied:	40 14 1 77	1(0)			
Oml Amber Vial (B)	40ml Amber Vi	al (C)			
					600
0 .1 -				-1	6/15/16
130 M	06/15/18 07:30 Date / Time	5	hees	1100	6/15/18
Released By	Date / Time	Received By		Date / Time	

Received By

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

18F1188

Date Received:

06/15/18

Matrix:

Water

Reporting Units: mg/L

RSK175

T I MT	TO (150	06.01	TO(15)	06.02		
Lab No.:	J06150		J06150			
	Raw V	Vater	Reservoir	Effluent		
Client Sample I.D.:	Site #	#1 /	Site :	4 5 /		
	18F118	38-01	18F118	38-05		
Date/Time Sampled:	6/13/18	8 8:22	6/13/18	8 8:45		
Date/Time Analyzed:	6/18/18	16:27	6/18/18	16:14		
QC Batch No.:	1806180	GC8A1	1806180	GC8A1		
Analyst Initials:	AS	8	AS	5		
Dilution Factor:	1.0)	1.0)		
	Result	RL	Result	RL		
ANALYTE	mg/L	mg/L	mg/L	mg/L		
Methane	2.0	0.0010	0.22	0.0010		

NID	- Not	Detected	(halow	DI	
ND	1001	Detected	(Delow	KL.)

RL = Reporting Limit

Reviewed/Approved By:

Operations Manager

The cover letter is an integral part of this analytical report

page 1 of 1

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 180613GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD I	BLANK		L	CS	LC	CSD				
Date/Time Analyzed:	6/13/18 1	4:12		6/18/13	8 14:50	6/18/1	8 15:03				
Analyst Initials:	AS			A	S	A	\S				
Dilution Factor:	1.0	v		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	0.668	102	0.691	106	3.5	70	130	30.0

ND= Not Detected (below RL)

RL= Reporting Limit

Reviewed/Approved By: _

Mark Johnson Operations Manage Date _

The cover letter is an integral part of this analytical report

1871188 Chain of Custody

Client		Cir	City of Lomita	Sys	System Number	ımber				Analy	Analysis Requested	edne	sted					
Address		24373	24373 Walnut Avenue			10,	1010073											
		Lon	Lomita, CA 91717			<u> </u>	, , , , ,									M		
Phone #		(3)	(310)903-2243		L	Destinati	Destination Laboratory	tory					He			eth		
Fax#						[X] Clinic	Clinical Laboratory	tory			Iro	T	teti			ane		
Project		Sta	Standard Analysis			RWQCB	RWQCB Compliance	ice									н	
Sub Project		CWPF Month	CWPF Monthly Compliance Samples;				YES				E. Co	l Co		Colo litra	Odo		ardr	
102(01 - gpo	_	2nd w	2nd week of June, 2018			Ш	ELAP#										ıess	
Comments						7	1088			Solid	inese	rm	e Cou			(RSI	i	
Sampled by		Д	Patrick McCue			-				s			nt			(175)		
Date	Time	Samp	Sample Idenitification	Matrix	Type	Preserv	Temp.	Н	Total Chlorine									
6/13/2018 C	2180	Rai	Raw Water Site #1	β	2	7	22.53	7.68	Ø	×	×			×				
9/13/2018	2280		Raw Water Site #1	GW	<u>%</u>	1, 2, 7					×	×	×			×	×	
				•														
9/13/2018	0820		Filter Effluent (Free Chlorine) Site#2	DW	11/	1.7	225	21.15	7.6		X	X	×					
) 8102/21/9	ଉପ୍ଟେଶ୍ବ		Filter Effluent (Total Chlorine) Site#3	DW	W	N/N	525	7.75	7,1		×			×				
6/13/2018	0825	Z ,	Zone #2 Site #6	DW	aı	N/A	20.6	8.55	2.3	X							х	
) 8102/81/9	2480	Reserv	Reservoir Effluent Site #5	DW	1 1	1,7	6.12	2018	3.5		X	×	×					
9/13/2018	0838	Reserv	Reservoir Effluent Site #5	DW	£	\ \ \				×				×	X		Х	
6/13/2018	8530		Reservoir Effluent Site #5	DW	£	2,7										×		
Preservatives:	(1) Na ₂ S ₂ O ₃	Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO3 (4) NH4Cl		Matrix: DW-Drinkin	W-Drink	cing Wat	er, WW-W	g Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air 3-Roulacement 4-Special W-Well D. D.	SW-Stor	Storm Water, GW- Ground Water, A-Air	GW-	Sroun	J Water	, A-Air	وز ا		Type- 1-Routine, 2-Repeat,	, 2-Repeat,
OS2H (6)	Sind Poly	(v) cold (a) c) . The C	1		 			d	ا ا	<u>.</u>			
Keling	Kelinquisnea By (Sign)	Sign)	Frint Name / Company			1	Date / 11me	11me	4	4		Kece	Keceivea By (Sign)	Sign	_	1	Frint Name / Company	pany
Patrix	Patrick Meas	}	Patrick McCue /City of Lomita 6/13/2018	,omita	5/13/20	81	11,3(为	1	#	7/5	5	3	9	3	18B	
\emptyset	10h	When I	J. WCG/128		6.13.18	18/	3.05				1	#	\forall				JA CISR	
Comments:						× ×	amples 1	Samples received:	XOn ice	ice (Intact	act () (//	//instoc	Custody seals Temp	ls Te	mp_59 () F &	3
Shipped Via			Fed X Golden State	I I UPS	Sa I I	Client	Other	er					Page 1	fo 1				



06 July 2018 Clinical Lab No.: 18F1740

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

Project Name: Standard Analysis

Sub Project: CWPF 3rd Week of June, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 06/20/18 . 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,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProjectStandard AnalysisWork Order:18F174024373 Walnut AvenueSub Project:CWPF 3rd Week of June, 2018 Compliance Sampling Received:06/20/18 15:00Lomita CA, 91717Project Manager:Mark AndersenReported:07/06/18

Reservoir Influent Site #3		18F1740-0	01 (Water)		Sample Da	te: 06/20/18	8 8:25 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	10.9		N/A	mg/L	06/20/18	06/20/18	1825113	
pH (Field)	Field	7.55		N/A	pH Units	06/20/18	06/20/18	1825113	
Temperature (Field)	Field	22.9		N/A	°C	06/20/18	06/20/18	1825113	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	06/20/18	06/20/18	1825157	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/21/18	06/21/18	1825110	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/21/18	06/21/18	1825110	
Reservoir Effluent Site #5		18F1740-0	02 (Water)		Sample Da	te: 06/20/18	8 8:30 Sa	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.36		N/A	mg/L	06/20/18	06/20/18	1825113	
pH (Field)	Field	7.87		N/A	pH Units	06/20/18	06/20/18	1825113	
Temperature (Field)	Field	22.1		N/A	°C	06/20/18	06/20/18	1825113	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	06/20/18	06/20/18	1825157	
Odor Threshold	EPA 140.1-M	2	1	3	TON	06/20/18	06/20/18	1825157	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	670	5.0	1000	mg/L	06/27/18	06/29/18	1826095	
ND Analyte NOT DETECTED at o	or above the reporting limit								



June 28, 2018

EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175 TX Cert T104704450-14-6

EPA Methods TO14A, TO15

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: 18F1740

Lab Number:

J062106-01

Enclosed are results for sample(s) received 6/21/18 by Air Technology Laboratories. Samples were received intact and properly chilled. 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 18F1740

J& 2186	-01/02

		7.1
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:	
Please email results to Project Manager: Stu Styles [] glaubig@clinical-lab.com [] styles@clinical-lab.com	n [] nelson@clinical-lab.com	
California EDT transfer those samples with PS code Water Trax Upload Client:	es provided [] Yes [v] No [] Yes [v] No	e.
Turn Around Time [] 10 Days [\$\sqrt{5}\$ Days [] C Subcontract Comments:	Other Days	
		* ;
Analysis	Comments	
Sample ID: Reservoir Effluent Site #5 / 18F1740-02	Sampled: 06/20/18 08:30 PS Code: Water WTX ID:	
Methane RSK175	Report in mg/L	
ontainers Supplied: Oml Amber Vial (B) 40ml Amber Via	al (C)	
		n

800

Bish	06/21/18 07:50	mechalda	h 921/9 9:00
Released By	Date / Time	Received By	Date / Time
Mel	Me 6/21/18	IMAN	6/21/18 (100
Released By	Date / Time	Received By	Date / Time

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

18F1740

Date Received:

06/21/18

Matrix:

Water

Reporting Units: mg/L

		RS	K175			
Lab No.:	J06210	06-01		I		
	Reservoir					
Client Sample I.D.:	Site 18F174					
Date/Time Sampled:	6/20/18					
Date/Time Analyzed:	6/28/18	9:18				
QC Batch No.:	1806280	GC8A1				
Analyst Initials:	AS	5				
Dilution Factor:	1.0)				
	Result	RL				
ANALYTE	mg/L	mg/L				
Methane	0.16	0.0010				

MID -	Mat	Datastad	(halow	DI
– עויו	TYUL	Detected	(nerow	NL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

The cover letter is an integral part of this analytical report

Date 6.28-18

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 180628GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD	BLANK		L	CS	LO	CSD				
Date/Time Analyzed:	6/28/18	9:05		6/28/	18 8:38	6/28/	18 8:52				
Analyst Initials:	AS			A	AS	A	AS	1			
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	0.769	118	0.779	119	1.2	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date 6-7 8-18

The cover letter is an integral part of this analytical report

Client			City of Lomita	S	System Number	umber				Analy	sis R	Analysis Requested	sted				
Address			24373 Walnut Avenue			70,	4040072						T	<u> </u>			
			Lomita, CA 91717			0	7 / 00	_			-	M		¥			
Phone #			(310)903-2243		-	Destination	estination Laboratory	tory			-	leth	<u></u>	Si			
Fax#						[X] Clinic	X] Clinical Laboratory	tory			Tota	ane		1þ			
Project			Standard Analysis			RWQCB	RWQCB Compliance	ə		on / M	Co I Diss	(Wa	o	to			
Sub Droion	١,	CWPF 3rd	CWPF 3rd week of June, 2018 Compliance				yes				olor		dor	W			
naíoLL dne		٠	Sampling			Ш	ELAP#							lcc I			
Comments		For TC/EC/B	For TC/EC/BACT see weekly Distro CoC			•	000				lids	SK		<u> </u>			
Sampled by	y		P. M.			-	000					175)					
Date	Fime		Sample Idenitification	Matrix	Type	Preserv	Hd	Temp.	Total							Comments	Comments / P.S. Codes
6/20/2018	9280	0826 Reservoir Influent Site #3	fluent Site #3	DW	1W	A/A	7.55	22,90	_	×	×	<u> </u>					
6/20/2018	283 c	2835 Reservoir Effluent Site #5	fluent Site #5	MQ	MΙ	Ϋ́	7,87	1.22.1	3.36		X	_	×				
6/20/2018	083	7830 Reservoir Effluent Site #5	fluent Site #5	MQ	MΙ	7						×					
)		-								_						
											-	-					
											-			-			-
																Andread and the second	
						\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.											
											+			+			
Preservatives	s: (1) Na _x	Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3	(4) NH4CI	Matrix:	OW-Drink	ing Water	; WW-Was	Matrix: DW-Drinking Water, WW-Waste Water, SW-Story		ater,	3W- G	1 puno.	GW- Ground Water, A-Air	4-Air		Type	Type- 1-Routine, 2-Repeat, 3-
(5) H2S	04 (6) Na	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:	1	<u> </u>				\	Kepi	cent	1t, 4-Sp	pecial	W-Well	ent, 4-Special W-Well D-Dist.	ų.	-	
Relin	quished	Relinquished By (Sign)	Print Name / Company				1 Date	Time (A	1	<		'	1	-	Pant Name	e / Company
Petrical	Miles	م	RAPICK MC City Pof Lomita	ita	6/20/201	/ 81	0:11	K D		7	\geq			1	3/1	(X) / (M)	
J	13		15 Jun 2001 (U)	X	n.9	181	2:0	9			X	7				(Cs.zl	
Complents	Si						Samples	Samples received:		À	7 , ⊒	Intact (•	Custod	ly seal	Custody seals Temp 60	()F (XC
Shinned Via)		Fed X Golden State	I UPS	Client		Other	1	+			P	Page 1 of 1	1 Jo			
					1												



10 July 2018 Clinical Lab No.: 18F2308

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

Project Name: Standard Analysis

Sub Project: CWPF 4th Week of June, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 06/27/18 . 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,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProjectStandard AnalysisWork Order:18F230824373 Walnut AvenueSub Project:CWPF 4th Week of June, 2018 Compliance Sampling Received:06/27/18 15:15Lomita CA, 91717Project Manager:Mark AndersenReported:07/10/18

Reservoir Influent Site #3		18F2308-0	01 (Water)		Sample Da	te: 06/27/18	3 9:10 Sa	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	8.7		N/A	mg/L	06/27/18	06/27/18	1826124	
pH (Field)	Field	7.73		N/A	pH Units	06/27/18	06/27/18	1826124	
Temperature (Field)	Field	22.9		N/A	°C	06/27/18	06/27/18	1826124	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	06/27/18	06/27/18	1826119	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	06/28/18	06/28/18	1826118	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	06/28/18	06/28/18	1826118	
Reservoir Effluent Site #5		18F2308-0	02 (Water)		Sample Da	te: 06/27/18	3 9:00 Sa	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.41		N/A	mg/L	06/27/18	06/27/18	1826124	
pH (Field)	Field	7.81		N/A	pH Units	06/27/18	06/27/18	1826124	
Temperature (Field)	Field	21.2		N/A	°C	06/27/18	06/27/18	1826124	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	06/27/18	06/27/18	1826119	
Odor Threshold	EPA 140.1-M	2	1	3	TON	06/27/18	06/27/18	1826119	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	600	5.0	1000	mg/L	07/02/18	07/05/18	1827022	



July 6, 2018

EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6

EPA Methods TO14A, TO15

UT Cert CA0133332015-3

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

EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 18F2308

Lab Number: J062803-01

Enclosed are results for sample(s) received 6/28/18 by Air Technology Laboratories. Samples were received intact and properly chilled. 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 18F2308

JO62803-01

SENDING LABORATORY:	RECEIVING LABORATORY:
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 Styles [] glaubig@clinical-lab.com [styles@clinical-lab.com [] nelson@clinical-lab.com
California EDT transfer those samples with PS codes pro Water Trax Upload Client:	ovided [] Yes [V] No
Turn Around Time [] 10 Days [\sqrt{5 Days} [] Other Subcontract Comments:	Days
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 18F2308-02 Sam Water	npled: 06/27/18 09:00 PS Code: ter WTX ID:
Methane RSK175	Report in mg/L
Containers Supplied:	

40ml Amber Vial (C)

40ml Amber Vial (B)

 Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

18F2308

Date Received:

06/28/18

Matrix:

Water

Reporting Units: mg/L

	RS	K175	
Lab No.:	J062803-01		
Client Sample I.D.:	Reservoir Effluent Site #5/18F2308-02		
Date/Time Sampled:	6/27/18 9:00		
Date/Time Analyzed:	7/6/18 9:17		
QC Batch No.:	180706GC8A1		
Analyst Initials:	AS		
Dilution Factor:	1.0		
ANALYTE	Result RL mg/L mg/L		

0.0010

ND = Not Detected (below RL)

RL = Reporting Limit

Methane

Reviewed/Approved By:

Mark Johnson **Operations Manager**

0.23

Date 7-6-18

The cover letter is an integral part of this analytical report

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 180706GC8A1

Matrix: Air Reporting Units: mg/L

RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD	BLANK		L	CS	LO	CSD				
Date/Time Analyzed:	7/6/18 9	0:04		7/6/13	8 8:35	7/6/1	8 8:49				
Analyst Initials:	AS			A	S	F	AS				
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	0.712	109	0.755	115	5.9	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date___ 7-6-18

The cover letter is an integral part of this analytical report

413 Chain of Custody

Address Phone #	24373 Walnut Avenue			1007			•						
Dh.					c			•					
Dhone #	Lomita, CA 91717		<u>"</u>	0.00161	o				N				
LINGIIC #	(310)903-2243		Destina	estination Laboratory	atory			-	1eth				
Fax #			[X] Cli	X] Clinical Laboratory	atory			Т	ane				
Project	Standard Analysis		RWQC	RWQCB Compliance	nce		on / N		(Wa	0			
Sub Project	CWPF 4th week of June, 2018 Compliance			yes				olor	ater)	dor			
	Sampling			ELAP#				16) (R				
Comments Fo.	For TC/EC/BACT see weekly Distro CoC			000	-			112	SK				
Sampled by	P.W.			0001					175)				
Date Time	Sample Idenitification	Matrix Type	e Preserv	rv pH	Temp.	Total						Comments / P.S. Codes	Codes
6/27/2018 O91O Res	O9/O Reservoir Influent Site #3	DW 1W	N/A	A 7.73	3729	2.7	×	×		-			
						Ш							
6/27/2018 (0900 Re	6/27/2018 (の9cc) Reservoir Effluent Site #5	DW IW	N/A	8'Z v	1 -21.20	3.41		X		×			
6/27/2018 C 9 €C Res	cgပ်င် Reservoir Effluent Site #5	DW, IW	7					_	×				
										-			
								_					
	- 1		-										
Freservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (5) H25O ₄ (6) Na ₂ S _{CO} (7) Cold (9) Other	3 (2) HCI (3) HNO3 (4) NH4CI	Matrix: DW-Drinkin	ınkıng Wat	er, WW-Wa	g Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	SW-Storm V	Vater, G	W- Gro	und W.	ater, A-A	اند	Type- 1-R	Type- 1-Routine, 2-Repeat, 3-
OSZBN (8) #OSZH (6)						uebiday	acemen	4-3pe	clai v	Replacement, 4-Special W-Well D-DIST.	- DIST.		
Relinquished By (Sign)	Sign) Print Name / Company			Date /	Time /		<u> </u>			١	<u> </u>	Print Name / Company	mpany
Petrick Miles	Ratrick		/ 8102	0:7	ン つ		Z	4		7	577	P[]/CC5	
	7	2.9 85	3777	7/3:1	7			4		•		/cn/ass	
Comments:		.		Samples	Samples received:		Ē		Intact () C	stody sea) Custody seals Temp ()	F X
Shipped Via	Fed X Golden State	[] UPS []	Client	Other					Pag	Page_1_of			

"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

		JUI	NE 2018	
DATE	DAY	METHAN	E HANDHELD	COMMENTS
6/1/2018	Fri	CH4- 4%	Оху- 20.6%	
6/2/2018	Sat	CH4- 0%	Oxy- 20.8%	
6/3/2018	Sun	CH4- 0%	Oxy- 20.9%	
6/4/2018	Mon	CH4- 1%	Oxy- 20.3%	
6/5/2018	Tue	CH4- 0%	Oxy- 20.9%	
6/6/2018	Wed	CH4- 0%	Oxy- 20.8%	
6/7/2018	Thu	CH4- 0%	Oxy- 20.7%	
6/8/2018	Fri	CH4- 0%	Oxy- 20.9%	
6/9/2018	Sat	CH4- 0%	Oxy- 20.8%	
6/10/2018	Sun	CH4- 0%	Oxy- 20.9%	
6/11/2018	Mon	CH4- 0%	Oxy- 20.9%	
6/12/2018	Tue	CH4- 1%	Oxy- 20.9%	
6/13/2018	Wed	CH4- 1%	Oxy- 20.9%	
6/14/2018	Thu	CH4- 2%	Oxy- 21.8%	
6/15/2018	Fri	CH4- 3%	Oxy- 20.9%	
6/16/2018	Sat	CH4- 0%	Oxy- 20.8%	
6/17/2018	Sun	CH4- 2%	Oxy- 20.9%	
6/18/2018	Mon	CH4- 0%	Oxy- 20.9%	
6/19/2018	Tue	CH4- 3%	Oxy- 21.1%	
6/20/2018	Wed	CH4- 1%	Oxy- 20.5%	
6/21/2018	Thu	CH4- 0%	Oxy- 20.5%	
6/22/2018	Fri	CH4- 0%	Oxy- 20.6%	
6/23/2018	Sat	CH4- 0%	Оху- 20.8%	
6/24/2018	Sun	CH4- 4%	Oxy- 20.9%	
6/25/2018	Mon	CH4- 4%	Oxy- 20.9%	
6/26/2018	Tue	CH4- 0%	Oxy- 20.8%	
6/27/2018	Wed	CH4- 1%	Oxy- 20.9%	
6/28/2018	Thu	CH4- 1%	Oxy- 20.9%	
6/29/2018	Fri	CH4- 0%	Oxy- 20.8%	
6/30/2018	Sat	CH4- 0%	Oxy- 20.8%	

ND- Non Detect

CH4- Methane

Oxy- Oxygen

Day Off/Holiday- Red

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

· MONTHLY NITRIFICATION MONITORING SUMMARY REPORT CITY OF LOMITA, System No. 1910073 --- Month, Year: June 2018

ži		end	end	end	end	end				Ţ	euo.	end	end	end	end					end	end	end	end	end	\Box	"	 		end	end	end	pua	pua					end	end	end	end	end			\rceil
Comments		Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	MWD Only	MWD Only	MWD Only	O CAMPA II AN	well/www blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	MWD Only	MWD Only	MWD Only		Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	MWD Only	MWD Only	MWD Only	1	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	MWD Only	MWD Only	MWD Only		Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	Well/MWD Blend	MWD Only	MWD Only	MWD Only
Zone		1 V	Λ T	1 1	1	1	2 N	3	2		\neg	7	7	7	1 /	2 N	3	2 1		1 /	7	1	1	1	2	コ	2		1 V	1 1	1 V		7 7	一	╗	2		1	7	1	1 <	1 V	2		2
нРС	CFU/ml	ND	ND	ND	2	ND	ND	ND	QN		ND	7	ND	9	ND	ND	ND	2		ND	QN	ND	7	ND	ND	QN	ND		ND	3	ND	77	ND	ND	ND	DN									
Coliform ²	P/A	Ą	А	٧	Ą	A	A	A	A		A	A	٧	A	A	А	A	A		A	А	V	A	A	Ą	A	A		A	А	V	٧	٧	۷	Ą	٧									
Nitrate	mg/L	ND	ND	QN	ND	ND	ND	QN	Q.	4	QN	QN	9	ΩN	ND	ND	QN	ΔN		UD	UD	ΩN	QN	ON	QN	GN	ND		QN	ND	ND	ND	QN	QN	ND	QN							1		
Nitrite	mg/L	6,008	0.021	600:0	.0.009	0.004	0.011	00:0	900.0		0.005	600.0	0.006	0.005	> 0.007	900:0	<: 0.008	- 0.003		0:003	0.009	0.007	0.007	0.005	.0.006	0:010	0.006		0.010	0.012	~ 0.004	0.005	-0.004	. 0.004	0.005	0.003		4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	C. (1967) 588 (1967) C.		である。		SAME TO SE		からなるとは
Free Ammonia	mg/L	.00:0	60:0	0.02		>> 00:0	0.04	0.11	0.00		0.06	0.12	0.04	. 0.19	0:00	60.0	0.07	. 0.04		0.00	< 0.05	0.01	0.15	0:00	0.05				0:00		_ ⊹60:0	0.17	0:00		. 0.07	0.05				· 大學 · 大學	· · · · · · · · · · · · · · · · · · ·	50 Sep. 30 Cars.	· 阿尔里尔斯		· 特別を変える
Total Ammonia	/Sm	.0.59		0.66	-0.43	96.0	.0.46	. 0.53.	0.50		0.65	0.58	0.60	. 0.55	99.0	0.51	0.52	0.53		. 0.58	0.58	0.58	0.38	0.57	0.44	. 0.50	0.42		0.62	○ .0.52	. 09:0	0.47	0.61	0.53	0.49	0.48			· おきるある		- 本書を教の大公	一般を発売される			
Free Chlorine	1/8w	0.04	0.04	90.0	0.05	0.12	90.0	80.0	60'0		90.0	0.05	0.07	0.04	80.0	0.02	0.03	0.02		0.16	0.04	0.05	0.04	0.02	50.0	60.0	0.02		0.01	0.02	00'0	0.03	0.02	€0.0	0.04	0.01				VI.2-					
Total Chlorine	mg/L	3.50	3.40	3.60	2.04	3.90	2.40	2.40	2.40		3.30	3.10	3.50	2.07	3.50	2.50	2.50	2.40		3.10	3.10	3.50	1.95	3.80	2.30	2.30	2.30		3.10	3.20	3.30	1.71	3.41	2.80	2.50	2.50									
Hď		7.90	7.99	7.99	7.45	8.07	8.29	8.27	8.27		7.82	7.90	8.00	7.94	8.06	8.40	8.45	8:38		7.99	7.94	7.94	76.7	8.01	8.24	8.17	8.36		8.15	8.06	8.03	7.99	7.81	8.54	8.54	8.50									
Temp	ပ္	21.8	21.0	21.8	22.6	20.9	26.8	19.8	19.8		21.8	21.6	22.1	21.2	21.9	20.9	20.6	20.7		22.2	22.0	22.8	21.8	21.8	21.3	21.5	21.8		22.1	22.0	21.8	22.5	21.2	21.2	20.2	20.1									
Sample Date	MM/DD/YYYY	6/6/2018	6/6/2018	6/6/2018	6/6/2018	6/6/2018	6/6/2018	6/6/2018	6/6/2018		6/13/2018	6/13/2018	6/13/2018	6/13/2018	6/13/2018	6/13/2018	6/13/2018	6/13/2018		6/20/2018	6/20/2018	6/20/2018	6/20/2018	6/20/2018	6/20/2018	6/20/2018	6/20/2018		6/27/2018	6/27/2018	6/27/2018	6/27/2018	6/27/2018	6/27/2018	6/27/2018	6/27/2018									
Location		1948 W 252nd St	24632 S Moon Ave	25417 Pennsylvania Ave	2052 Dawn St	Reservoir SP5	1912 W 259th St	26314 S Monte Vista Ave	2500 PCH		1948 W 252nd St	24632 S Moon Ave	25417 Pennsylvania Ave	2052 Dawn St	Reservoir SP5	1912 W 259th St	26314 5 Monte Vista Ave	2500 PCH		1948 W 252nd St	24632 S Moon Ave	25417 Pennsylvania Ave	2052 Dawn St	Reservoir SP5	1912 W 259th St	26314 S Monte Vista Ave	2500 PCH		1948 W 252nd St	24632 S Moon Ave	25417 Pennsylvania Ave	2052 Dawn St	Reservoir SP5	1912 W 259th St	26314 S Monte Vista Ave	2500 PCH		1948 W 252nd St	24632 S Moon Ave	25417 Pennsvivania Ave	2052 Dawn St	Reservoir	1912 W 259th St	26314 S Monte Vista Ave	2500 PCH
Sample ID	hers 👉	93			A 2		\$13-001	Т	\$13-005	Г	$\overline{}$			A 2	105	513-001 1			7	S13-003 1	\$13-004 2		A 2		S13-001 1	\$13-002 2		1	S13-003 1			т	<u> </u>	S13-001 1	Г	П	1	\$13-003 1	1				\$13-001	Т	T
# Code	Units/Others	1 D	L	3	4 D	5	L		2 8	Ĺ	<u>-1</u>	2 D	3	4 D	2	9		Ω]	1 D	2	<u></u>	0		0 9	<u>م</u> ک	0 8	1	1 D	┖	L	L	2 D	L		۵		1 D				1			0

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).

²Coliform results are part of weekly Bacti sampling results.

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