

CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

November 2017

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CITY COUNCIL

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



CITY OF LOMITA

ADMINISTRATION

RYAN SMOOT
CITY MANAGER

December 11, 2017

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

Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility (CWPF) for the period of November 1 through November 30, 2017.

Dear Mr. Williams,

In accordance with the Department of Public Health temporary approval letter dated March 15, 2013 and Permit Amendment No. 1910073, I am submitting the following report for the Cypress Water Production Facility operations for the month of November 2017.

If you should have any questions or concerns, please contact me at 310-325-7110 Ext. 124.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark A. McAvoy", is written over a horizontal line.

Mark A. McAvoy, P.E.
Public Works Director/City Engineer

A. BACKGROUND

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

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

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

B. WELL PRODUCTION

The CWPF operated continuously during the month of November 2017 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 414 gpm and 351 gpm from MWD. The blend ratio for month was 54% Well water and 46% MWD water. See Table 1 below for production totals for the month of November 2017.

Table 1. Monthly Production Totals.

Production for November 2017			
Well No. 5	49.27	ac-ft	16,053,142 (gallons)
MWD	41.31	ac-ft	13,460,000 (gallons)
Combined Total	90.58	ac-ft	29,513,142 (gallons)
Daily	3.02	ac-ft/day	983,771 (gallons/day)

C. OPERATIONAL INTERRUPTIONS

During the month of November 2017, CWPF was placed offline for approximately ½ a day and water was supplied by the City's West Basin 8 MWD interconnection with no interruption of service to customers. Routine preventive maintenance and overall system checks were performed at this time. 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. Iron and Manganese in the raw water (SP1) for the month were below and above the MCL, respectively. 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 534 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 770 mg/L and 280 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 270 mg/L. This hardness level is slightly higher than 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 0.37 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 November 2017 in Appendix B.

E3-5 ODOR

The odor levels at the CWPF effluent averaged 2.6 units for the month.

E4. NITRIFICATION MONITORING

Weekly nitrification sampling was performed during the month of November 2017 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results. During this month, additional hydrant flushing was implemented due to elevated Nitrite reads.

F. TABLES

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

Date, week of	SP1, Well Raw Water Discharge							SP2, Combined Pressure Filter Effluent			SP3, After chloramination static mixer; reservoir entry					
	Iron, ug/L	*MCL = 300 ug/L	Manganese, ug/L	*MCL = 50 ug/L	Color	*MCL=15	Total Coliform	Total Coliform	HPC, MPN/100mL	MCL=500	Iron, mg/L	*MCL = 300 ug/L	Manganese, mg/L	*MCL = 50 ug/L	Color	*MCL=15
11/1/2017											ND	300	ND	50	5	15
11/8/2017	240	300	190	50	7.5	15	A	A	A	500	ND	300	ND	50	ND	15
11/15/2017											ND	300	ND	50	5	15
11/22/2017											ND	300	ND	50	5	15
11/29/2017											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, week of	SP2	SP3			SP4			SP5		
	Free Cl	Free Cl	Total Cl	Total NH ₃	Free Cl	Total Cl	Total NH ₃	Free Cl	Total Cl	Total NH ₃
11/1/2017	4.20	-	5.36	0.74	0.51	4.77	0.78	0.07	3.55	0.77
11/8/2017	4.12	-	5.10	0.91	0.46	4.52	0.88	0.08	3.43	0.80
11/18/2017	6.23	-	5.96	0.88	0.55	5.16	0.88	0.07	3.48	0.92
11/22/2017	5.46	-	6.06	0.90	0.56	4.65	0.89	0.06	3.67	0.87
11/29/2017	3.97	-	5.33	0.92	0.50	4.76	1.04	0.06	3.98	0.97

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

Date, week of	TDS, mg/L				T.O.N.		Hardness, mg/L				Methane (Water), mg/L	
	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 500 - 750 mg/L	SP5 - Reservoir Effluent	MCL= 3	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 180 - 250 mg/L	SP1 - Raw Well Water	SP5 - Reservoir Effluent
11/1/2017			490	500-750	2	3						0.31
11/8/2017	770	280	570	500-750	2	3	380	120	270	180-250	3.8	0.43
11/15/2017			560	500-750	4	3						0.42
11/22/2017			540	500-750	2	3						0.46
11/29/2017			510	500-750	3	3						0.24
Average			534	500-750	2.6	3						0.37

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

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

Notes: ¹Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO₃ Goal-180-250 ppm.

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

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

APPENDIX A

LABORATORY RESULTS

Clinical Laboratory of San Bernardino, Inc.



15 November 2017

Clinical Lab No.: 17K0126

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

Project Name: Standard Analysis
Sub Project: CWPF 1st Week of Nov, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 11/01/17. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles

Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 1st Week of Nov, 2017 Compliance Sampling
Project Manager: Mark Andersen

Work Order: 17K0126
Received: 11/01/17 15:25
Reported: 11/15/17

Reservoir Influent Site #3 **17K0126-01 (Water)** **Sample Date:** 11/01/17 8:38 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	6.06		N/A	mg/L	11/01/17	11/01/17	1744120	
pH (Field)	Field	7.63		N/A	pH Units	11/01/17	11/01/17	1744120	
Temperature (Field)	Field	22.1		N/A	°C	11/01/17	11/01/17	1744120	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	11/01/17	11/01/17	1744128	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	11/03/17	11/06/17	1744175	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	11/03/17	11/06/17	1744175	

Reservoir Effluent Site #5 **17K0126-02 (Water)** **Sample Date:** 11/01/17 8:40 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	3.71		N/A	mg/L	11/01/17	11/01/17	1744120	
pH (Field)	Field	7.95		N/A	pH Units	11/01/17	11/01/17	1744120	
Temperature (Field)	Field	21		N/A	°C	11/01/17	11/01/17	1744120	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	11/01/17	11/01/17	1744128	
Odor Threshold	EPA 140.1-M	2	1	3	TON	11/01/17	11/01/17	1744128	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	490	5.0	1000	mg/L	11/08/17	11/10/17	1745084	
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ND Analyte NOT DETECTED at or above the reporting limit



November 9, 2017

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



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

LABORATORY TEST RESULTS

Project Reference: 17K0126
Lab Number: I110205-01

Enclosed are results for sample(s) received 11/02/17 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 NELAC 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

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
17K0126

I110205-01

SENDING LABORATORY:Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles**RECEIVING LABORATORY:**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 [] ybarra@clinical-lab.com [x] styles@clinical-lab.com [] nelson@clinical-lab.com

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

Water Trax Upload Client: [] Yes [x] No

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

Subcontract Comments:

Analysis**Comments**

Sample ID: Reservoir Effluent Site #5 / 17K0126-02

Sampled: 11/01/17 08:40 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

6°C

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17K0126
Date Received: 11/02/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I110205-01						
Client Sample I.D.:	Reservoir Effluent Site #5/17K0126- 02						
Date/Time Sampled:	11/1/17 8:40						
Date/Time Analyzed:	11/9/17 11:01						
QC Batch No.:	171109GC8A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result mg/L	RL mg/L					
Methane	0.31	0.0010					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: 

Mark Johnson
Operations Manager

Date 11-9-17

The cover letter is an integral part of this analytical report



QC Batch No.: 171109GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:	Method Blank			LCS		LCSD			
Date/Time Analyzed:	11/9/17 8:44			11/9/17 9:58		11/9/17 10:12			
Analyst Initials:	AS			AS		AS			
Datafile:	09nov001			09nov006		09nov007			
Dilution Factor:	1.0			1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	108	70-130%	101	70-130%	6.9	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date:

11-9-17

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



17X0126

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



27 November 2017

Clinical Lab No.: 17K0760

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

Project Name: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of Nov, 2017

Enclosed are the results of the analyses for samples received at the laboratory on 11/08/17. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWP Monthly Compliance / 2nd Week of Nov, 2017
Project Manager: Mark Andersen

Work Order: 17K0760
Received: 11/08/17 15:15
Reported: 11/27/17

Raw Water Site #1

17K0760-01 (Water)

Sample Date: 11/08/17 7:57 Sampler: DGM

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

Cl Res Total (Field)	Field	0		N/A	mg/L	11/08/17	11/08/17	1745102	
pH (Field)	Field	7.52		N/A	pH Units	11/08/17	11/08/17	1745102	
Temperature (Field)	Field	21.9		N/A	°C	11/08/17	11/08/17	1745102	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	11/08/17	11/09/17	1745126	
E. Coli	SM 9223	A		N/A	P/A	11/08/17	11/09/17	1745126	
Plate Count	SM9215B	160	1	500	CFU/ml	11/08/17	11/10/17	1745176	HT-08

General Physical Analyses

Apparent Color	SM 2120BM	7.5	3.0	15	Color Units	11/08/17	11/08/17	1745135	
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General Chemical Analyses

Hardness, Total (as CaCO ₃)	Calculated	380	6.6	N/A	mg/L	11/17/17	11/17/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	770	5.0	1000	mg/L	11/15/17	11/17/17	1746101	

Metals

Calcium (Ca)	EPA 200.7	100	1.0	N/A	mg/L	11/17/17	11/17/17	1746167	
Iron (Fe)	EPA 200.7	240	100	300	ug/L	11/16/17	11/16/17	1746112	
Magnesium (Mg)	EPA 200.7	31	1.0	N/A	mg/L	11/17/17	11/17/17	1746167	
Manganese (Mn)	EPA 200.7	190	20	50	ug/L	11/16/17	11/16/17	1746112	

Filter Effluent (Free Chlorine) Site #2

17K0760-02 (Water)

Sample Date: 11/08/17 7:39 Sampler: DGM

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

Cl Res Total (Field)	Field	5.7		N/A	mg/L	11/08/17	11/08/17	1745102	
pH (Field)	Field	7.47		N/A	pH Units	11/08/17	11/08/17	1745102	
Temperature (Field)	Field	22.3		N/A	°C	11/08/17	11/08/17	1745102	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	11/08/17	11/09/17	1745126	
E. Coli	SM 9223	A		N/A	P/A	11/08/17	11/09/17	1745126	
Plate Count	SM9215B	ND	1	500	CFU/ml	11/08/17	11/10/17	1745176	HT-08

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf Monthly Compliance / 2nd Week of Nov, 2017
Project Manager: Mark Andersen

Work Order: 17K0760
Received: 11/08/17 15:15
Reported: 11/27/17

Filter Effluent (Total Chlorine) Site #3

17K0760-03 (Water)

Sample Date: 11/08/17 7:43 **Sampler:** DGM

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

Cl Res Total (Field)	Field	5.37		N/A	mg/L	11/08/17	11/08/17	1745102	
pH (Field)	Field	7.51		N/A	pH Units	11/08/17	11/08/17	1745102	
Temperature (Field)	Field	22.7		N/A	°C	11/08/17	11/08/17	1745102	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	11/08/17	11/08/17	1745135	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	11/16/17	11/16/17	1746112	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	11/16/17	11/16/17	1746112	

Zone #2 Site #6

17K0760-04 (Water)

Sample Date: 11/08/17 7:45 **Sampler:** DGM

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

Cl Res Total (Field)	Field	2.44		N/A	mg/L	11/08/17	11/08/17	1745102	
pH (Field)	Field	8.58		N/A	pH Units	11/08/17	11/08/17	1745102	
Temperature (Field)	Field	20		N/A	°C	11/08/17	11/08/17	1745102	

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	120	6.6	N/A	mg/L	11/17/17	11/17/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	280	5.0	1000	mg/L	11/15/17	11/17/17	1746101	

Metals

Calcium (Ca)	EPA 200.7	27	1.0	N/A	mg/L	11/17/17	11/17/17	1746167	
Magnesium (Mg)	EPA 200.7	12	1.0	N/A	mg/L	11/17/17	11/17/17	1746167	

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of 24373 Walnut Avenue Lomita CA, 91717	Project: Standard Analysis Sub Project: CWPf Monthly Compliance / 2nd Week of Nov, 2017 Project Manager: Mark Andersen	Work Order: 17K0760 Received: 11/08/17 15:15 Reported: 11/27/17
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Reservoir Effluent Site #5 **17K0760-05 (Water)** **Sample Date:** 11/08/17 7:52 **Sampler:** DGM

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

Cl Res Total (Field)	Field	3.46		N/A	mg/L	11/08/17	11/08/17	1745102	
pH (Field)	Field	7.83		N/A	pH Units	11/08/17	11/08/17	1745102	
Temperature (Field)	Field	20.9		N/A	°C	11/08/17	11/08/17	1745102	

General Physical Analyses

Odor Threshold	EPA 140.1-M	2	1	3	TON	11/08/17	11/08/17	1745135	
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General Chemical Analyses

Hardness, Total (as CaCO₃)	Calculated	270	6.6	N/A	mg/L	11/17/17	11/17/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	570	5.0	1000	mg/L	11/15/17	11/17/17	1746101	

Metals

Calcium (Ca)	EPA 200.7	71	1.0	N/A	mg/L	11/17/17	11/17/17	1746167	
Magnesium (Mg)	EPA 200.7	24	1.0	N/A	mg/L	11/17/17	11/17/17	1746167	

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



November 16, 2017

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



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

LABORATORY TEST RESULTS

Project Reference: 17K0760
Lab Number: I110901-01/02

Enclosed are results for sample(s) received 11/09/17 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 NELAC 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson", with a stylized flourish at the end.

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
17K0760

2 of 4
1110901

1110901-01/02

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

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

California EDT transfer those samples with PS codes provided [] Yes [x] No
Water Trax Upload Client: [] Yes [x] No

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

Subcontract Comments:

Analysis

Comments

Sample ID: Raw Water Site #1 / 17K0760-01

Sampled: 11/08/17 07:57 PS Code:
Water

WTX ID:

61

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Sample ID: Reservoir Effluent Site #5 / 17K0760-05

Sampled: 11/08/17 07:52 PS Code:
Water

WTX ID:

62

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Be Sly
Released By

11/09/17 07:30
Date / Time

Received By

11/9/17 857
Date / Time

Released By

11/9/17
Date / Time

Received By

11/9/17 1018
Date / Time

7°C

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17K0760
Date Received: 11/09/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I110901-01	I110901-02		
Client Sample I.D.:	Raw Water Site #1 / 17K0760-01	Reservoir Effluent Site #5 / 17K0760-05		
Date/Time Sampled:	11/8/17 7:57	11/8/17 7:52		
Date/Time Analyzed:	11/9/17 12:01	11/9/17 11:46		
QC Batch No.:	171109GC8A1	171109GC8A1		
Analyst Initials:	AS	AS		
Dilution Factor:	1.0	1.0		
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L
Methane	3.8	0.0010	0.43	0.0010

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/16/17

The cover letter is an integral part of this analytical report



QC Batch No.: 171109GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		11/9/17 8:44		11/9/17 9:58		11/9/17 10:12			
Analyst Initials:		AS		AS		AS			
Datafile:		09nov001		09nov006		09nov007			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	108	70-130%	101	70-130%	6.9	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____

Mark J. Johnson
Operations Manager

Date: 11/16/17

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

2/3

17K0760

Client		City of Lomita		System Number		Analysis Requested												
Address		24373 Walnut Avenue		1910073														
Phone #		(310) 325-9830		Destination Laboratory														
Fax #		(310) 325-3627		[X] Clinical Laboratory														
Project		Standard Analysis		RWQCB Compliance														
Sub Project		CWPFC Monthly Compliance Samples; 2nd week of Nov., 2017		YES														
Comments				ELAP #														
Sampled by		DGM		1088														
Date	Time	Sample Identification	Matrix	Type	Preserv	Temp.	pH	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Heterotrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Hardness	
11/8/2017	0748	Raw Water Site #1	GW	1W	N/A	21.9°	7.52	Ø	X	X	X	X	X	X				
11/8/2017	0757	Raw Water Site #1	GW	1W	1,2,7						X	X	X			X	X	
11/8/2017	0739	Filter Effluent (Free Chlorine) Site#2	DW	1W	1,7	22.3°	7.47	5.7			X	X	X					
11/8/2017	0743	Filter Effluent (Total Chlorine) Site#3	DW	1W	N/A	22.7°	7.51	5.37		X				X				
11/8/2017	0745	Zone #2 Site #6	DW	ID	N/A	20.0°	8.58	2.44	X							X		
11/8/2017	0752	Reservoir Effluent Site #5	DW	ID	N/A	20.9°	7.83	3.46	X					X		X		
11/8/2017	0752	Reservoir Effluent Site #5	DW	ID	2,7											X		
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO ₃ (4) NH ₄ Cl (5) H ₂ SO ₄ (6) Na ₂ SO ₃ (7) Cold (8) Other:		Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground Water, A-Air Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D-Dist.																
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company										
Patrick McCue		City of Lomita, CA		11/8/2017 12:15		J. Luero		J. Luero / CUB										
Comments:		J. Luero / CUB		11-8-17/3:15		J. Luero / CUB		J. Luero / CUB										
Shipped Via		Fed X		Golden State		UPS		Client		Other		Page 1 of 1						

Clinical Laboratory of San Bernardino, Inc.



04 December 2017

Clinical Lab No.: 17K1525

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

Project Name: Standard Analysis
Sub Project: CWPF 3rd Week of Nov, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 11/15/17 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 3rd Week of Nov, 2017 Compliance Sampling
Project Manager: Mark Andersen
Work Order: 17K1525
Received: 11/15/17 15:30
Reported: 12/04/17

Reservoir Influent Site #3 **17K1525-01 (Water)** **Sample Date:** 11/15/17 9:28 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	5.64		N/A	mg/L	11/15/17	11/15/17	1746145	
pH (Field)	Field	7.71		N/A	pH Units	11/15/17	11/15/17	1746145	
Temperature (Field)	Field	22.8		N/A	°C	11/15/17	11/15/17	1746145	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	11/15/17	11/15/17	1746138	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	11/28/17	11/28/17	1748025	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	11/28/17	11/28/17	1748025	

Reservoir Effluent Site #5 **17K1525-02 (Water)** **Sample Date:** 11/15/17 9:25 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	3.38		N/A	mg/L	11/15/17	11/15/17	1746145	
pH (Field)	Field	7.75		N/A	pH Units	11/15/17	11/15/17	1746145	
Temperature (Field)	Field	20.8		N/A	°C	11/15/17	11/15/17	1746145	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	11/15/17	11/15/17	1746138	
Odor Threshold	EPA 140.1-M	4	1	3	TON	11/15/17	11/15/17	1746138	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	560	5.0	1000	mg/L	11/22/17	11/27/17	1747074	
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ND Analyte NOT DETECTED at or above the reporting limit



November 22, 2017

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



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

LABORATORY TEST RESULTS

Project Reference: 17K1525
Lab Number: I111701-01

Enclosed are results for sample(s) received 11/17/17 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 NELAC 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson", is written over a horizontal line.

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
17K1525

I111701-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

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

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

Water Trax Upload Client: [] Yes [x] No

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

Subcontract Comments:

Analysis

Comments

Sample ID: Reservoir Effluent Site #5 / 17K1525-02

Sampled: 11/15/17 09:25 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

-3°C

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17K1525
Date Received: 11/17/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I111701-01						
Client Sample I.D.:	Reservoir Effluent Site #5/17K1525- 02						
Date/Time Sampled:	11/15/17 9:25						
Date/Time Analyzed:	11/20/17 9:24						
QC Batch No.:	171120GC8A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result mg/L	RL mg/L					
Methane	0.42	0.0010					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
Operations Manager

Date

11-22-17

The cover letter is an integral part of this analytical report



QC Batch No.: 171120GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		11/20/17 9:11		11/20/17 8:42		11/20/17 8:55			
Analyst Initials:		AS		AS		AS			
Datafile:		20nov003		20nov001		20nov002			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	106	70-130%	105	70-130%	0.6	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date:

11-22-17

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



Clinical Laboratory of San Bernardino, Inc.



07 December 2017

Clinical Lab No.: 17K2000

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

Project Name: Standard Analysis
Sub Project: CWPF 4th Week of Nov, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 11/22/17 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of 24373 Walnut Avenue Lomita CA, 91717	Project: Standard Analysis Sub Project: CWPf 4th Week of Nov, 2017 Compliance Sampling Project Manager: Mark Andersen	Work Order: 17K2000 Received: 11/22/17 15:30 Reported: 12/07/17
---	---	---

Reservoir Influent Site #3 **17K2000-01 (Water)** **Sample Date:** 11/22/17 7:35 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	6.06		N/A	mg/L	11/22/17	11/22/17	1748033	
pH (Field)	Field	7.57		N/A	pH Units	11/22/17	11/22/17	1748033	
Temperature (Field)	Field	22.2		N/A	°C	11/22/17	11/22/17	1748033	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	11/22/17	11/22/17	1747112	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	11/29/17	11/30/17	1748084	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	11/29/17	11/30/17	1748084	

Reservoir Effluent Site #5 **17K2000-02 (Water)** **Sample Date:** 11/22/17 7:40 **Sampler:** Patrick McCue

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

Field Analyses

Cl Res Total (Field)	Field	3.791		N/A	mg/L	11/22/17	11/22/17	1748033	
pH (Field)	Field	7.89		N/A	pH Units	11/22/17	11/22/17	1748033	
Temperature (Field)	Field	20.6		N/A	°C	11/22/17	11/22/17	1748033	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	11/22/17	11/22/17	1747112	
Odor Threshold	EPA 140.1-M	2	1	3	TON	11/22/17	11/22/17	1747112	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	540	5.0	1000	mg/L	11/28/17	11/29/17	1748052	
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ND Analyte NOT DETECTED at or above the reporting limit

December 4, 2017

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



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

LABORATORY TEST RESULTS

Project Reference: 17K2000
Lab Number: 1112701-01

Enclosed are results for sample(s) received 11/27/17 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 NELAC 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
17K2000

I 112701-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

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

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

Water Trax Upload Client: [] Yes [x] No

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

Subcontract Comments:

Analysis

Comments

Sample ID: Reservoir Effluent Site #5 / 17K2000-02

Sampled: 11/22/17 07:40 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

70C

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17K2000
Date Received: 11/27/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I112701-01			
Client Sample I.D.:	Reservoir Effluent Site #5/17K2000-02			
Date/Time Sampled:	11/22/17 7:40			
Date/Time Analyzed:	11/28/17 8:15			
QC Batch No.:	171127GC8A1			
Analyst Initials:	AS			
Dilution Factor:	1.0			
ANALYTE	Result mg/L	RL mg/L		
Methane	0.46	0.0010		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
Mark Johnson
Operations Manager

Date 12/4/17

The cover letter is an integral part of this analytical report



QC Batch No.: 171127GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		11/27/17 11:42		11/27/17 11:55		11/27/17 12:08			
Analyst Initials:		AS		AS		AS			
Datafile:		27nov001		27nov002		27nov003			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	111	70-130%	109	70-130%	2.3	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: 12/4/17

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

Client		City of Lomita		System Number		Analysis Requested											
Address		24373 Walnut Avenue Lomita, CA 91717		1910073													
Phone #		(310) 325-9830		Destination Laboratory													
Fax #		(310) 325-3627		[X] Clinical Laboratory													
Project		Standard Analysis		RWQCB Compliance													
Sub Project		CWPF 4th week of November, 2017		yes													
Comments		For TC/EC/BACT see weekly Distro CoC		ELAP #													
Sampled by		Patrick McCue		1088													
Date	Time	Sample Identification		Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
11/22/2017	0735	Reservoir Influent Site #3		DW	IW	N/A	7.57	22.2	6.06	X		X					
11/22/2017	0740	Reservoir Effluent Site #5		DW	IW	N/A	7.89	20.6	3.79		X	X				X	
11/22/2017	0740	Reservoir Effluent Site #5		DW	IW	2							X				
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO ₃ (4) NH ₄ Cl				Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground Water, A-Air		Type- 1-Routine, 2-											
(5) H ₂ SO ₄ (6) Na ₂ SO ₃ (7) Cold (8) Other:				Repeat, 3-Replacement, 4-Special W-Well D-Dist.													
Relinquished By (Sign)		Print Name / Company		Date / Time		Print Name / Company											
Patrick McCue		City of Lomita		11/22/2017 12:30		J. Lucena / CLSB											
Patrick McCue		J. Lucena / CLSB		11-22-17 / 3:30		Patrick McCue / CLSB											
Comments:						Samples received: X On ice () Intact () Custody seals Temp 7.5 () F X C											
Shipped Via		Fed X		Golden State		UPS		Clight		Other		Page 1 of 1					

Clinical Laboratory of San Bernardino, Inc.



07 December 2017

Clinical Lab No.: 17K2374

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

Project Name: Standard Analysis
Sub Project: CWPF 5th Week of Nov, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 11/29/17 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles

Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 5th Week of Nov, 2017 Compliance Sampling
Project Manager: Mark Andersen
Work Order: 17K2374
Received: 11/29/17 15:00
Reported: 12/07/17

Reservoir Influent Site #3 **17K2374-01 (Water)** **Sample Date:** 11/29/17 9:45 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	5.325		N/A	mg/L	11/29/17	11/29/17	1748090	
pH (Field)	Field	7.53		N/A	pH Units	11/29/17	11/29/17	1748090	
Temperature (Field)	Field	21.3		N/A	°C	11/29/17	11/29/17	1748090	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	11/29/17	11/29/17	1748122	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/01/17	12/01/17	1748140	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/01/17	12/01/17	1748140	

Reservoir Effluent Site #5 **17K2374-02 (Water)** **Sample Date:** 11/29/17 9:48 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	3.72		N/A	mg/L	11/29/17	11/29/17	1748090	
pH (Field)	Field	7.89		N/A	pH Units	11/29/17	11/29/17	1748090	
Temperature (Field)	Field	21		N/A	°C	11/29/17	11/29/17	1748090	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	11/29/17	11/29/17	1748122	
Odor Threshold	EPA 140.1-M	3	1	3	TON	11/29/17	11/29/17	1748122	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	510	5.0	1000	mg/L	12/01/17	12/04/17	1748161	
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ND Analyte NOT DETECTED at or above the reporting limit



December 8, 2017

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



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

LABORATORY TEST RESULTS

Project Reference: 17K2374
Lab Number: I113003-01

Enclosed are results for sample(s) received 11/30/17 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 NELAC 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,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

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

SUBCONTRACT ORDER

2 of 4
1113003Clinical Laboratory of San Bernardino
17K2374

I113003-01

SENDING LABORATORY:Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu StylesRECEIVING LABORATORY: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 [] ybarra@clinical-lab.com [x] styles@clinical-lab.com [] nelson@clinical-lab.com

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

Water Trax Upload Client: [] Yes [x] No

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

Subcontract Comments:

AnalysisComments

Sample ID: Reservoir Effluent Site #5 / 17K2374-02

Sampled: 11/29/17 09:48 PS Code:

Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17K2374
Date Received: 11/30/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I113003-01						
Client Sample I.D.:	Reservoir Effluent Site #5/17K2374- 02						
Date/Time Sampled:	11/29/17 9:48						
Date/Time Analyzed:	12/7/17 10:28						
QC Batch No.:	171207GC8A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result mg/L	RL mg/L					
Methane	0.24	0.0010					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


Mark Johnson
Operations Manager

Date


12/8/17

The cover letter is an integral part of this analytical report



QC Batch No.: 171207GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/7/17 9:46		12/7/17 13:31		12/7/17 13:46			
Analyst Initials:		AS		AS		AS			
Datafile:		07dec004		07dec018		07dec019			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	97	70-130%	91	70-130%	5.8	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: _____

12/8/17

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

$$\frac{m}{\emptyset}$$

17x2374

[illegible]

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

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

NOVEMBER 2017					
DATE	DAY	METHANE HANDHELD			COMMENTS
11/1/2017	Wed	CH4-	0%	Oxy-	19.5%
11/2/2017	Thu	CH4-	0%	Oxy-	19.7%
11/3/2017	Fri	CH4-	0%	Oxy-	20.3%
11/4/2017	Sat	CH4-	0%	Oxy-	19.5%
11/5/2017	Sun	CH4-	0%	Oxy-	19.7%
11/6/2017	Mon	CH4-	0%	Oxy-	19.5%
11/7/2017	Tue	CH4-	0%	Oxy-	19.5%
11/8/2017	Wed	CH4-	0%	Oxy-	19.7%
11/9/2017	Thu	CH4-	0%	Oxy-	20.3%
11/10/2017	Fri	CH4-	0%	Oxy-	20.5%
11/11/2017	Sat	CH4-	0%	Oxy-	19.7%
11/12/2017	Sun	CH4-	0%	Oxy-	19.5%
11/13/2017	Mon	CH4-	0%	Oxy-	19.5%
11/14/2017	Tue	CH4-	0%	Oxy-	19.7%
11/15/2017	Wed	CH4-	0%	Oxy-	19.7%
11/16/2017	Thu	CH4-	0%	Oxy-	19.7%
11/17/2017	Fri	CH4-	0%	Oxy-	19.5%
11/18/2017	Sat	CH4-	0%	Oxy-	19.5%
11/19/2017	Sun	CH4-	0%	Oxy-	19.3%
11/20/2017	Mon	CH4-	0%	Oxy-	19.7%
11/21/2017	Tue	CH4-	0%	Oxy-	19.5%
11/22/2017	Wed	CH4-	0%	Oxy-	19.5%
11/23/2017	Thu				Thanksgiving Holiday
11/24/2017	Fri	CH4-	0%	Oxy-	19.3%
11/25/2017	Sat	CH4-	0%	Oxy-	19.5%
11/26/2017	Sun	CH4-	0%	Oxy-	19.3%
11/27/2017	Mon	CH4-	0%	Oxy-	19.7%
11/28/2017	Tue	CH4-	0%	Oxy-	19.7%
11/29/2017	Wed	CH4-	0%	Oxy-	19.7%
11/30/2017	Thu	CH4-	0%	Oxy-	19.7%

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: November 2017

#	Code	Sample ID	Location	Sample Date	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform ²	HPC	Zone	Comments
Units/Others →				MM/DD/YYYY	°C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml		
1	D	S13-003	1948 W 252nd St	11/1/2017	20.8	7.90	3.00	0.08	0.56	0.12	0.006	0.42	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	11/1/2017	20.6	7.81	2.00	0.05	0.38	0.16	0.078	0.52	A	2	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	11/1/2017	20.9	7.85	3.40	0.05	0.66	0.10	0.012	0.43	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	11/1/2017	20.4	8.26	1.70	0.13	0.38	0.10	0.011	ND	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	11/1/2017	21.0	7.95	3.71	0.08	0.76	0.00	0.003	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	11/1/2017	20.1	8.36	2.60	0.08	0.47	0.02	0.010	0.56	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	11/1/2017	19.9	8.35	2.60	0.05	0.49	0.07	0.007	0.54	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	11/1/2017	19.9	8.30	2.50	0.06	0.50	0.04	0.009	0.55	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	11/8/2017	19.5	7.85	2.90	0.08	0.62	0.01	0.010	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	11/8/2017	19.1	7.76	1.73	0.11	0.44	0.13	0.083	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	11/8/2017	21.7	7.83	3.30	0.17	0.70	0.00	0.009	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	11/8/2017	19.9	8.41	1.83	0.05	0.49	0.00	0.017	0.45	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	11/8/2017	20.9	7.83	3.46	0.05	0.80	0.00	0.007	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	11/8/2017	20.2	8.56	2.60	0.07	0.49	0.00	0.007	0.44	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	11/8/2017	21.2	8.53	2.40	0.12	0.49	0.02	0.013	0.45	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	11/8/2017	20.8	8.48	2.50	0.09	0.47	0.04	0.014	0.42	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	11/15/2017	19.0	7.90	2.80	0.10	0.57	0.00	0.007	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	11/15/2017	20.9	7.73	1.55	0.06	0.35	0.06	0.151	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	11/15/2017	21.7	7.79	3.00	0.18	0.58	0.01	0.019	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	11/15/2017	19.5	8.51	2.14	0.08	0.49	0.04	0.023	0.44	A	1	1	Well/MWD Blend
5	D		Reservoir SP5	11/15/2017	20.8	7.75	3.38	0.06	0.70	0.00	0.005	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	11/15/2017	10.5	8.88	2.50	0.08	0.50	0.02	0.009	0.43	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	11/15/2017	16.5	8.68	2.50	0.07	0.56	0.01	0.014	0.42	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	11/15/2017	21.1	8.61	2.50	0.05	0.53	0.02	0.010	0.41	A	1	2	MWD Only
1	D	S13-003	1948 W 252nd St	11/22/2017	19	7.47	2.9	0.06	0.57	0.04	0.006	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	11/22/2017	19.7	7.74	1.55	0.15	0.30	0.08	0.164	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	11/22/2017	19.9	7.87	3.00	0.10	0.51	0.00	0.020	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	11/22/2017	18.4	8.64	2.01	0.10	0.39	0.07	0.038	0.41	A	4	1	Well/MWD Blend
5	D		Reservoir SP5	11/22/2017	20.6	7.89	3.79	0.08	0.68	0.00	0.008	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	11/22/2017	21.3	8.77	2.50	0.15	0.48	0.06	0.010	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	11/22/2017	20.0	8.76	2.40	0.11	0.46	0.07	0.016	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	11/22/2017	19.5	8.68	2.70	0.06	0.50	0.02	0.013	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	11/29/2017	17.9	8.01	3.60	0.18	1.10	0.17	0.007	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	11/29/2017	18.1	7.80	1.71	0.06	0.47	0.55	0.252	0.41	A	3	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	11/29/2017	18.4	7.93	3.60	0.10	1.10	0.07	0.027	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	11/29/2017	15.9	8.72	1.93	0.09	0.45	0.00	0.022	0.40	A	2	1	Well/MWD Blend
5	D		Reservoir	11/29/2017	21.0	7.89	3.72	0.05	1.04	0.10	0.005	ND	A	1	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	11/29/2017	19.1	8.96	2.40	0.06	0.50	0.01	0.010	ND	A	1	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	11/29/2017	19.7	8.94	2.40	0.04	0.49	0.00	0.007	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	11/29/2017	18.4	8.78	2.30	0.13	0.51	0.00	0.013	ND	A	ND	2	MWD Only

¹Notes: Report Due to DDW by the 10th of the following month. This Report can be used for the routine weekly monitoring (one Report per month) as well as for daily monitoring when there is actual and potential for nitrification (about four or five Reports per month, in this case).

²Coliform results are part of weekly Bacti sampling results.

³The City is monitoring trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Due to elevated reads additional hydrant flushing has been implemented.