

CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

DECEMBER 2016

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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

January 10, 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 December 1 through December 31, 2016.

Dear Mr. Williams,

In accordance with the Department of Public Health temporary approval letter dated March 15, 2013 and Permit Amendment No. 1910073, I am submitting the following report for the Cypress Water Production Facility operations for the month of December 2016.

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

Sincerely,

for 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 for the month of December 2016 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 416 gpm and 425 gpm from MWD. The blend ratio for month was 49% Well water and 51% MWD water. See Table 1 below for production totals for the month of December 2016.

Table 1. Monthly Production Totals.

	Production for October 2016		
Well No. 5	43.98	ac-ft	(14,329,690 gallons)
MWD	46.48	ac-ft	(15,143,000 gallons)
Combined Total	90.45	ac-ft	(29,472,681 gallons)
Daily	2.92	ac-ft/day	(4,210,383 gallons/day)

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of December 2016. 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. 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 705 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 710 mg/L and 600 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 310 mg/L. Although, this hardness level is in the upper range of the City's Water Quality Objective/Goal of 180 to 250 mg/L; staff continues to monitor hardness levels at the CWPF effluent (SP5) and within the water distribution system. The City has maintained a consistent blend ratio to ensure acceptable hardness levels are met.

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

E3-3 DISSOLVED METHANE (IN WATER)

The methane levels in the CWPF effluent after aeration treatment remain negligible averaging 0.35 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 December 2016 in Appendix B.

E3-5 ODOR

The odor levels at the CWPF effluent averaged 1.3 units for the month.

E4. NITRIFICATION MONITORING

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

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 = 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
12/9/2016	200	300	110	50	10	15	A	A	A	500	ND	300	ND	50	ND	15
12/14/2016											ND	300	ND	50	ND	15
12/21/2016											ND	300	ND	50	ND	15
12/28/2016											ND	300	ND	50	ND	15

Notes:

Monthly- Orange; Weekly- Yellow

A – Absent

ND – Non Detect

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

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
12/9/2016	5.28	0.49	5.21	0.52	0.27	3.91	0.60	0.06	2.52	0.49
12/14/2016	4.98	0.44	4.67	0.77	0.24	3.92	0.71	0.06	2.79	0.57
12/21/2016	4.48	0.85	6.83	0.86	0.24	4.63	0.78	0.05	2.65	0.60
12/28/2016	4.09	0.53	5.04	0.71	0.23	3.97	0.57	0.08	2.51	0.53

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
12/9/2016	710	600	670	500-750	1	3	320	270		180-250	2.5	0.40
12/14/2016			700	500-750	2	3						0.43
12/21/2016			730	500-750	1	3						0.31
12/28/2016			720	500-750	1	3			*310	180-250		0.24
Average	710	600	705	500-750	1.3	3	320	370	310	180-250	2.5	0.35

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

*Hardness at SP5 sampled in house

Monthly CWPf Monitoring Report – DECEMBER 2016

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

Sample Locations and Parameters	Frequency	MCL/ Goal	12/9	12/14	12/21	12/28	5 th Wk	Comments and/or Other Info.
			1stWk	2 nd Wk	3rdWk	4 th Wk		
			or Mo. Result (date)					

SP1 --- Also called Well 5 Raw Water or Site#1.

TDS, ppm	Monthly	See SP5	710 12/9/16	Operations Data/Information: CWPf operation days On Well 5: Daily average flow - 416 gpm; total prod. - 43.98 AF Combined Well 5/MWD data: Average Well 5: MWD blend Ratio – 49% WELL:51% MWD; total prod.- 90.45 AF Chlorine Dosage: N/A*				*Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	310 12/28/16					
CH4, ppm	Monthly	See SP5	2.5 12/9/16					
Iron, ppb	Monthly	See SP3	200 12/9/16					
Manganese, ppb	Monthly	See SP3	110 12/9/16					
Color, units	Monthly	See SP3	10 12/9/16					
Total Coliform, P or A	Monthly	A	A 12/9/16					

SP2 --- Also called Filter Effluent or Site#3.

Total Coliform, P or A	Monthly	A	A	Ammonia Dosage: N/A*	*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	A		
Free Cl Res, ppm	Continuous	Average: 4.71; Range: 4.09 – 5.28			

SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.

Iron, ppb	Weekly	300	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		
Color	Weekly	15	ND	ND	ND	ND		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.58; Range: 0.44 – 0.85 Total Cl: Average: 5.44; Range: 4.67 – 6.83 Ammonia: Average: 0.71; Range: 0.52 – 0.86						

SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.

Phosphate Injection		Phosphate Dosage: 1.29 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.24; Range: 0.23 – 0.27 Total Cl: Average: 4.11; Range: 3.91 – 4.63 Ammonia: Average: 0.66; Range: 0.57 – 0.78						Cl/NH3 Ratio: 6.19

SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.

TDS, ppm	Weekly	SI Goal: 500-750ppm	670	700	730	720		
Hardness	Monthly	SI Goal: 180-250ppm				310		
CH4, ppm	Weekly	Goal: from PA	0.40	0.43	0.31	0.24		% CH4 Removal: 86%
Odor, units	Monthly	1	1	2	1	1		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.06; Range: 0.05 – 0.08 Total Cl: Average: 2.62; Range: 2.51 – 2.79 Ammonia: Average: 0.55; Range: 0.49 – 0.60						Cl/NH3 Ratio: 4.78

Headspace of the Cypress Reservoir.

¹ CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.26% CH4 Range: 0% - 2%				
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SP 6 --- MWD Source Feeding CWPf. Also called Zone 2 of the distribution system or Site #6.

TDS, ppm	Monthly	-----	600					
Hardness	Monthly	-----	270					

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.



22 December 2016

Clinical Lab No.: 16L0804

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

Project Name: Standard Analysis
Sub Project: Monthly Compliance / Monthly 1st Week Dec

Enclosed are the results of the analyses for samples received at the laboratory on 12/09/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

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

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly Compliance / Monthly 1st Week Dec
Project Manager: Mark Andersen

Work Order: 16L0804
Received: 12/09/16 16:25
Reported: 12/22/16

Raw Water Site #1

16L0804-01 (Water)

Sample Date: 12/09/16 10:45 **Sampler:** DGM

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

pH (Field)	Field	7.35		N/A	pH Units	12/09/16	12/09/16	1651045	
Temperature (Field)	Field	22.4		N/A	°C	12/09/16	12/09/16	1651045	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	12/09/16	12/10/16	1650426	
E. Coli	SM 9223	A		N/A	P/A	12/09/16	12/10/16	1650426	
Plate Count	SM9215B	260	1	500	CFU/ml	12/09/16	12/11/16	1651003	

General Physical Analyses

Apparent Color	SM 2120B	10.0	3.0	15	Color Units	12/09/16	12/09/16	1651011	
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General Chemical Analyses

Hardness, Total (as CaCO₃)	Calculated	320	6.6	N/A	mg/L	12/13/16	12/13/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	710	5.0	1000	mg/L	12/16/16	12/19/16	1651444	

Metals

Calcium (Ca)	EPA 200.7	85	1.0	N/A	mg/L	12/13/16	12/13/16	1651044	
Iron (Fe)	EPA 200.7	200	100	300	ug/L	12/12/16	12/12/16	1650352	
Magnesium (Mg)	EPA 200.7	27	1.0	N/A	mg/L	12/13/16	12/13/16	1651044	
Manganese (Mn)	EPA 200.7	110	20	50	ug/L	12/12/16	12/12/16	1650352	

Filter Effluent (Free Chlorine) Site #2

16L0804-02 (Water)

Sample Date: 12/09/16 10:50 **Sampler:** D G M

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

Cl Res Total (Field)	Field	5.53		N/A	mg/L	12/09/16	12/09/16	1651045	
pH (Field)	Field	7.51		N/A	pH Units	12/09/16	12/09/16	1651045	
Temperature (Field)	Field	22.6		N/A	°C	12/09/16	12/09/16	1651045	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	12/09/16	12/10/16	1650426	
E. Coli	SM 9223	A		N/A	P/A	12/09/16	12/10/16	1650426	
Plate Count	SM9215B	ND	1	500	CFU/ml	12/09/16	12/11/16	1651003	

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly Compliance / Monthly 1st Week Dec
Project Manager: Mark Andersen

Work Order: 16L0804
Received: 12/09/16 16:25
Reported: 12/22/16

Filter Effluent (Total Chlorine) Site #3

16L0804-03 (Water)

Sample Date: 12/09/16 11:00

Sampler: D G M

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

Cl Res Total (Field)	Field	4.97		N/A	mg/L	12/09/16	12/09/16	1651045	
pH (Field)	Field	7.58		N/A	pH Units	12/09/16	12/09/16	1651045	
Temperature (Field)	Field	22.5		N/A	°C	12/09/16	12/09/16	1651045	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/09/16	12/09/16	1651011	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/12/16	12/12/16	1650352	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/12/16	12/12/16	1650352	

Zone #2 Site #6

16L0804-04 (Water)

Sample Date: 12/09/16 11:05

Sampler: DGM

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

Cl Res Total (Field)	Field	1.86		N/A	mg/L	12/09/16	12/09/16	1651045	
pH (Field)	Field	7.99		N/A	pH Units	12/09/16	12/09/16	1651045	
Temperature (Field)	Field	19.6		N/A	°C	12/09/16	12/09/16	1651045	

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	270	6.6	N/A	mg/L	12/13/16	12/13/16	[CALC]	
Total Filterable Residue/TDS	SM 2540C	600	5.0	1000	mg/L	12/16/16	12/19/16	1651444	

Metals

Calcium (Ca)	EPA 200.7	66	1.0	N/A	mg/L	12/13/16	12/13/16	1651044	
Magnesium (Mg)	EPA 200.7	25	1.0	N/A	mg/L	12/13/16	12/13/16	1651044	

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Monthly Compliance / Monthly 1st Week Dec
Project Manager: Mark Andersen

Work Order: 16L0804
Received: 12/09/16 16:25
Reported: 12/22/16

Reservoir Effluent Site #5

16L0804-05 (Water)

Sample Date: 12/09/16 11:10

Sampler: DGM

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

Cl Res Total (Field)	Field	3.1		N/A	mg/L	12/09/16	12/09/16	1651045	
pH (Field)	Field	7.79		N/A	pH Units	12/09/16	12/09/16	1651045	
Temperature (Field)	Field	20.8		N/A	°C	12/09/16	12/09/16	1651045	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/09/16	12/09/16	1651011	
Odor Threshold	EPA 140.1M	1	1	3	TON	12/09/16	12/09/16	1651011	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	670	5.0	1000	mg/L	12/16/16	12/19/16	1651444	
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ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16L0804

Report Date: 12/22/2016

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

Page 1 of 1

LOMITA-CITY, WATER DEPT.

User ID: 4TH

System: 1910073

WELL 05	Station No.: 1910073-003			Sampled: 161209 10:45
COLOR	Result: 10.0	Units: UNITS	Entry No.: 00081	Analyzed: 161209
TOTAL HARDNESS (AS CaCO3)	Result: 320	Units: MG/L	Entry No.: 00900	Analyzed: 161213
CALCIUM	Result: 85	Units: MG/L	Entry No.: 00916	Analyzed: 161213
MAGNESIUM	Result: 27	Units: MG/L	Entry No.: 00927	Analyzed: 161213
IRON	Result: 200	Units: UG/L	Entry No.: 01045	Analyzed: 161212
MANGANESE	Result: 110	Units: UG/L	Entry No.: 01055	Analyzed: 161212
TOTAL DISSOLVED SOLIDS	Result: 710	Units: MG/L	Entry No.: 70300	Analyzed: 161219

WELL 05 TREATMENT PLANT EFFLUENT	Station No.: 1910073-006			Sampled: 161209 11:00
COLOR	Result: ND	Units: UNITS	Entry No.: 00081	Analyzed: 161209
IRON	Result: ND	Units: UG/L	Entry No.: 01045	Analyzed: 161212
MANGANESE	Result: ND	Units: UG/L	Entry No.: 01055	Analyzed: 161212



December 22, 2016

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



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



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: 16L0804
Lab Number: H121302-01/02

Enclosed are results for sample(s) received 12/13/16 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
16L0804

H 121302-01/02

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 / 16L0804-01

Sampled: 12/09/16 10:45 PS Code:
Water

WTX ID:

01

Methane RSK175

Report in mg/L

Containers Supplied:

Sample ID: Reservoir Effluent Site #5 / 16L0804-05

Sampled: 12/09/16 11:10 PS Code:
Water

WTX ID:

62

Methane RSK175

Report in mg/L

Containers Supplied:

4°C

Released By

12/12/16 10:20

Date / Time

Received By

8:00 12-13-16

Date / Time

Released By

12/13/16

Date / Time

Received By

11/13/16 1042

Date / Time

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 16L0804
Date Received: 12/13/16
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	H121302-01	H121302-02		
Client Sample I.D.:	Raw Water Site #1 / 16L0804-01	Reservoir Effluent Site #5 / 16L0804- 02		
Date/Time Sampled:	12/9/16 10:45	12/9/16 11:10		
Date/Time Analyzed:	12/21/16 15:12	12/21/16 15:25		
QC Batch No.:	161221GC8A1	161221GC8A1		
Analyst Initials:	AS	AS		
Dilution Factor:	1.0	1.0		
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L
Methane	2.5	0.0010	0.40	0.0010

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

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 12/22/16

The cover letter is an integral part of this analytical report



QC Batch No.: 161221GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/21/16 14:28		12/21/16 14:41		12/21/16 14:54			
Analyst Initials:		AS		AS		AS			
Datafile:		21dec002		21dec003		21dec004			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.001	0.001	ND	128	70-130%	120	70-130%	6.7	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____

Mark J. Johnson
Operations Manager

Date: _____

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		Monthly Compliance/ Monthly 1st week DEC		YES ELAP #													
Comments				1088													
Sampled by		DGM															
Date	Time	Sample Identification	Matrix	Type	Prewerv	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Heterotrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Hardness		
12/9/2016	10:45	Raw Water Site #1	GW	1W	N/A	N/A	X	X		X	X	X				PH 7.35 TEMP 22.4	
12/9/2016	" "	Raw Water Site #1	GW	1W	2.7	" "			X	X	X			X	X		
12/9/2016	" "	Raw Water Site #1	GW	1W	1.7	" "											
12/9/2016	10:50am	Filter Effluent (Free Chlorine) Site#2	DW	1W	1.7	5.53			X	X	X					PH 7.51 TEMP 22.6	
12/9/2016	11:00am	Filter Effluent (Total Chlorine) Site#3	DW	1W	N/A	4.97		X				X				PH 7.58 TEMP 22.5	
12/9/2016	11:05am	Zone #2 Site #6	DW	1D	N/A	1.86	X								X	PH 7.99 TEMP 19.6	
12/9/2016	11:10am	Reservoir Effluent Site #5	DW	1D	N/A	3.1	X					X	X			PH 7.79 TEMP 20.8	
12/9/2016	11:16am	Reservoir Effluent Site #5	DW	1D	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:																	
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company									
Daniel Mateik		City of Lomita, CA		12/9/2016 1230		[Signature]		CLSB									
[Signature]		CLSB		4 425		[Signature]		CLSB									
Comments:										Samples received: () On ice () Intact () Custody seals Temp 10 () F () C							
Shipped Via		Fed X Golden State		UPS		Client		Other		Page 1 of 1							

Clinical Laboratory of San Bernardino, Inc.



03 January 2017

Clinical Lab No.: 16L1215

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

Project Name: Standard Analysis
Sub Project: CWPF 2nd Week Dec. Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 12/14/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

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

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 2nd Week Dec. Compliance Sampling
Project Manager: Mark Andersen

Work Order: 16L1215
Received: 12/14/16 17:25
Reported: 01/03/17

Reservoir Influent Site #3 **16L1215-01 (Water)** **Sample Date:** 12/14/16 8:30 **Sampler:** PLM

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

Cl Res Total (Field)	Field	4.35		N/A	mg/L	12/14/16	12/14/16	1651373	
pH (Field)	Field	7.65		N/A	pH Units	12/14/16	12/14/16	1651373	
Temperature (Field)	Field	19.5		N/A	°C	12/14/16	12/14/16	1651373	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/14/16	12/14/16	1651354	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/19/16	12/19/16	1651455	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/19/16	12/19/16	1651455	

Reservoir Effluent Site #5 **16L1215-02 (Water)** **Sample Date:** 12/14/16 9:00 **Sampler:** PLM

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

Field Analyses

Cl Res Total (Field)	Field	2.94		N/A	mg/L	12/14/16	12/14/16	1651373	
pH (Field)	Field	7.79		N/A	pH Units	12/14/16	12/14/16	1651373	
Temperature (Field)	Field	19.2		N/A	°C	12/14/16	12/14/16	1651373	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/14/16	12/14/16	1651354	
Odor Threshold	EPA 140.1M	2	1	3	TON	12/14/16	12/14/16	1651354	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	700	5.0	1000	mg/L	12/20/16	12/22/16	1652108	
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ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 16L1215

Report Date: 01/03/2017

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

Page 1 of 1

LOMITA-CITY, WATER DEPT.

User ID: 4TH

System: 1910073

WELL 05 TREATMENT PLANT EFFLUENT

Station No.: 1910073-006

Sampled: 161214 08:30

COLOR

Result: ND

Units: UNITS

Entry No.: 00081

Analyzed: 161214

IRON

Result: ND

Units: UG/L

Entry No.: 01045

Analyzed: 161219

MANGANESE

Result: ND

Units: UG/L

Entry No.: 01055

Analyzed: 161219



December 23, 2016

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



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



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: 16L1215
Lab Number: H121603-01

Enclosed are results for sample(s) received 12/16/16 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
16L1215

H121603-01

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 / 16L1215-02

Sampled: 12/14/16 09:00 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

4°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.: 16L1215
Date Received: 12/16/16
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	H121603-01						
Client Sample I.D.:	Reservoir Effluent Site #5 / 16L1215- 02						
Date/Time Sampled:	12/14/16 9:00						
Date/Time Analyzed:	12/21/16 15:39						
QC Batch No.:	161221GC8A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result mg/L	RL mg/L					
Methane	0.43	0.0010					

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

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 12/23/16

The cover letter is an integral part of this analytical report



QC Batch No.: 161221GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/21/16 14:28		12/21/16 14:41		12/21/16 14:54			
Analyst Initials:		AS		AS		AS			
Datafile:		21dec002		21dec003		21dec004			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.001	0.001	ND	128	70-130%	120	70-130%	6.7	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____

Mark J. Johnson
Operations Manager

Date: _____

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

~~3/4~~

0/2/4 Ben

16L1215

[illegible]

Clinical Laboratory of San Bernardino, Inc.



09 January 2017

Clinical Lab No.: 16L1880

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

Project Name: Standard Analysis
Sub Project: CWPF 3rd Week Dec. Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 12/21/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

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

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of	Project: Standard Analysis	Work Order: 16L1880
24373 Walnut Avenue	Sub Project: CWPf 3rd Week Dec. Compliance Sampling	Received: 12/21/16 16:00
Lomita CA, 91717	Project Manager: Mark Andersen	Reported: 01/09/17

Reservoir Influent Site #3 **16L1880-01 (Water)** **Sample Date:** 12/21/16 6:30 **Sampler:** PLM

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

pH (Field)	Field	7.68		N/A	pH Units	12/21/16	12/21/16	1652423	
Temperature (Field)	Field	21.5		N/A	°C	12/21/16	12/21/16	1652423	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/21/16	12/21/16	1652390	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/23/16	12/23/16	1652436	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/23/16	12/23/16	1652436	

Reservoir Effluent Site #5 **16L1880-02 (Water)** **Sample Date:** 12/21/16 6:35 **Sampler:** PLM

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

Field Analyses

pH (Field)	Field	7.82		N/A	pH Units	12/21/16	12/21/16	1652423	
Temperature (Field)	Field	19.4		N/A	°C	12/21/16	12/21/16	1652423	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/21/16	12/21/16	1652390	
Odor Threshold	EPA 140.1M	1	1	3	TON	12/21/16	12/21/16	1652390	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	730	5.0	1000	mg/L	12/28/16	01/03/17	1653084	
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ND Analyte NOT DETECTED at or above the reporting limit



December 30, 2016

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



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



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: 16L1880
Lab Number: H122302-01

Enclosed are results for sample(s) received 12/23/16 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 "M. 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
16L1880

2 of 4
H122302

H122302-01

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 / 16L1880-02

Sampled: 12/21/16 06:35 PS Code:
Water

WTX ID:

01

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

-4°C with
12/23/16

Released By	12/23/16 07:45	Received By	12/23/16 8:30
m claud	12/23/16 9:31		0936
Released By	Date / Time	Received By	Date / Time

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 16L1880
Date Received: 12/23/16
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	H122302-01						
Client Sample I.D.:	Reservoir Effluent Site #5 / 16L1880- 02						
Date/Time Sampled:	12/21/16 6:35						
Date/Time Analyzed:	12/28/16 10:47						
QC Batch No.:	161227GC8A1						
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
 Mark Johnson
 Operations Manager

Date 12/30/16

The cover letter is an integral part of this analytical report



QC Batch No.: 161227GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD				
Date/Time Analyzed:		12/27/16 15:23		12/27/16 14:57		12/27/16 15:10				
Analyst Initials:		AS		AS		AS				
Datafile:		27dec020		27dec018		27dec019				
Dilution Factor:		1.0		1.0		1.0				
ANALYTE		PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane		0.001	0.001	ND	114	70-130%	110	70-130%	4.2	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: _____

12/30/16

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

[illegible]

Clinical Laboratory of San Bernardino, Inc.



09 January 2017

Clinical Lab No.: 16L2171

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

Project Name: Standard Analysis
Sub Project: CWPF 2nd Week Dec Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 12/28/16 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

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

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 2nd Week Dec Compliance Sampling
Project Manager: Mark Andersen

Work Order: 16L2171
Received: 12/28/16 14:15
Reported: 01/09/17

Reservoir Influent Site #3 **16L2171-01 (Water)** **Sample Date:** 12/28/16 10:25 **Sampler:** PLM

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

pH (Field)	Field	7.68		N/A	pH Units	12/28/16	12/28/16	1653200	
Temperature (Field)	Field	21.1		N/A	°C	12/28/16	12/28/16	1653200	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/28/16	12/28/16	1653293	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	01/04/17	01/05/17	1701129	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	01/04/17	01/05/17	1701129	

Reservoir Effluent Site #5 **16L2171-02 (Water)** **Sample Date:** 12/28/16 10:20 **Sampler:** PLM

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

Field Analyses

Cl Res Total (Field)	Field	2.63		N/A	mg/L	12/28/16	12/28/16	1653200	
pH (Field)	Field	7.94		N/A	pH Units	12/28/16	12/28/16	1653200	
Temperature (Field)	Field	18.3		N/A	°C	12/28/16	12/28/16	1653200	

General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	12/28/16	12/28/16	1653293	
Odor Threshold	EPA 140.1M	1	1	3	TON	12/28/16	12/28/16	1653293	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	720	5.0	1000	mg/L	01/03/17	01/06/17	1701050	
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ND Analyte NOT DETECTED at or above the reporting limit



January 5, 2017

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



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



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

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA013332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 16L2171
Lab Number: H122905 -01

Enclosed are results for sample(s) received 12/29/16 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 "McL. for", is positioned above the printed name.

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
16L2171

H122905-01

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 / 16L2171-02

Sampled: 12/28/16 10:20 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

2°C

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 16L2171
Date Received: 12/29/16
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	H122905-01						
Client Sample I.D.:	Reservoir Effluent Site #5 / 16L2171- 02						
Date/Time Sampled:	12/28/16 10:20						
Date/Time Analyzed:	12/30/16 11:56						
QC Batch No.:	161230GC8A2						
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
 Mark Johnson
 Operations Manager

Date 1/5/17

The cover letter is an integral part of this analytical report



QC Batch No.: 161230GC8A2
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/30/16 11:42		12/30/16 11:16		12/30/16 11:29			
Analyst Initials:		AS		AS		AS			
Datafile:		30dec021		30dec019		30dec020			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.001	0.001	ND	96	70-130%	97	70-130%	0.9	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____

Mark J. Johnson
Mark J. Johnson
Operations Manager

Date: _____

1/5/17

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

[illegible]

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

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

DECEMBER 2016				
DATE	DAY	METHANE HANDHELD		COMMENTS
12/1/2016	TH	CH ₄ - 0%	Oxy- 20.1%	
12/2/2016	F	CH ₄ - 0%	Oxy- 20.1%	
12/3/2016	SA	CH ₄ - 0%	Oxy- 20.1%	
12/4/2016	SU	CH ₄ - 0%	Oxy- 20.4%	
12/5/2016	M	CH ₄ - 0%	Oxy- 20.1%	
12/6/2016	T	CH ₄ - 0%	Oxy- 20.3%	
12/7/2016	W	CH ₄ - 0%	Oxy- 20.2%	
12/8/2016	TH	CH ₄ - 1%	Oxy- 19.9%	
12/9/2016	F	CH ₄ - 2%	Oxy- 20.1%	
12/10/2016	SA	CH ₄ - 0%	Oxy- 20.0%	
12/11/2016	SU	CH ₄ - 0%	Oxy- 20.1%	
12/12/2016	M	CH ₄ - 0%	Oxy- 20.3%	
12/13/2016	T	CH ₄ - 0%	Oxy- 20.1%	
12/14/2016	W	CH ₄ - 2%	Oxy- 18.8%	
12/15/2016	TH	CH ₄ - 0%	Oxy- 20.1%	
12/16/2016	F	CH ₄ - 0%	Oxy- 19.8%	
12/17/2016	SA	CH ₄ - 2%	Oxy- 20.2%	
12/18/2016	SU	CH ₄ - 1%	Oxy- 20.4%	
12/19/2016	M	CH ₄ - 0%	Oxy- 20.8%	
12/20/2016	T	CH ₄ - 0%	Oxy- 20.9%	
12/21/2016	W	CH ₄ - 0%	Oxy- 20.4%	
12/22/2016	TH	CH ₄ - 0%	Oxy- 20.1%	
12/23/2016	F	CH ₄ - 0%	Oxy- 20.1%	
12/24/2016	SA	CH ₄ - 0%	Oxy- 20.6%	
12/25/2016	SU	CH ₄ - 0%	Oxy- 19.2%	
12/26/2016	M	CH ₄ - 0%	Oxy- 20.1%	
12/27/2016	T	CH ₄ - 0%	Oxy- 20.5%	
12/28/2016	W	CH ₄ - 0%	Oxy- 19.8%	
12/29/2016	TH	CH ₄ - 0%	Oxy- 19.8%	
12/30/2016	F	CH ₄ - 0%	Oxy- 19.8%	
12/31/2016	SA	CH ₄ - 0%	Oxy- 19.8%	
ND- Non Detect				
CH ₄ - Methane				
Oxy- Oxygen				
Day Off/Holiday- Red				

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

¹MONTHLY NITRIFICATION MONITORING SUMMARY REPORT **CITY OF LOMITA, System No. 1910073 --- Month, Year: December 2016**

#	C	Sample I.D	Location	Sample Date (and Time)	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform ²	HPC	Z	Comments
					°C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml	o n e	
Units/Others →				MMDYYYY												
1	D	S13-003	1948 W. 252 nd St	12/9/2016	19.6	7.98	1.15	0.13	0.38	0.11	0.014	ND	A	2	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Av	12/9/2016	18.0	7.56	0.65	0.16	0.38	0.05	0.011	ND	A	25	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Av	12/9/2016	17.9	7.64	1.67	0.16	0.37	0.09	0.009	ND	A	36	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/9/2016	21.9	7.81	0.21	0.04	0.37	0.10	0.019	ND	A	140	1	Well/MWD Blend
5	D		Reservoir	12/9/2016	20.4	8.04	3.10	0.17	0.59	0.03	0.003	ND	A	2	1	Well/MWD Blend
6	D	S13-001	1912 W. 259 th Pl	12/9/2016	18.6	8.21	1.86	0.07	0.39	0.18	0.015	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Via.	12/9/2016	18.3	8.26	1.90	0.18	0.39	0.19	0.016	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/9/2016	18.0	8.21	1.73	0.01	0.40	0.13	0.017	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	12/14/2016	15.1	7.87	0.82	0.11	0.19	0.00	0.478	ND	A	1	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Av	12/14/2016	17.0	7.83	0.64	0.00	0.26	0.11	0.837	ND	A	27	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Av	12/14/2016	18.5	7.96	1.60	0.28	0.42	0.03	0.294	ND	A	8	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/14/2016	18.2	7.88	0.20	0.02	0.10	0.05	0.902	ND	A	240	1	Well/MWD Blend
5	D		Reservoir	12/14/2016	19.2	7.79	2.94	0.30	0.54	0.15	0.002	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W. 259 th Pl	12/14/2016	18.0	8.19	1.80	0.03	0.50	0.03	0.018	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Via.	12/14/2016	18.7	8.17	1.92	0.06	0.44	0.05	0.029	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/14/2016	17.4	8.23	1.82	0.13	0.46	0.16	0.029	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	12/21/2016	18.2	7.18	0.41	0.05	0.39	0.09	0.013	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Av	12/21/2016	18.2	7.48	0.50	0.03	0.38	0.09	0.014	ND	A	48	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Av	12/21/2016	18.5	7.56	1.58	0.20	0.33	0.10	0.009	ND	A	12	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/21/2016	19.6	7.54	0.50	0.00	0.38	0.15	0.015	0.47	A	57	1	Well/MWD Blend
5	D		Reservoir	12/21/2016	19.8	7.14	2.80	0.03	0.52	0.08	0.003	ND	A	3	1	Well/MWD Blend
6	D	S13-001	1912 W. 259 th Pl	12/21/2016	18.3	7.96	2.40	0.22	0.37	0.12	0.012	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Via.	12/21/2016	18.1	7.91	2.40	0.18	0.43	0.16	0.016	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/21/2016	18.0	7.95	2.17	0.25	0.31	0.13	0.010	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 nd St	12/28/2016	17.6	7.77	0.37	-	0.36	0.11	0.025	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Av	12/28/2016	16.8	7.69	0.20	-	0.38	0.07	0.017	ND	A	110	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Av	12/28/2016	17.5	7.79	1.14	-	0.31	0.12	0.018	ND	A	2	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/28/2016	15.7	7.72	1.26	-	0.31	0.12	0.027	ND	A	30	1	Well/MWD Blend
5	D		Reservoir	12/28/2016	18.3	7.97	2.60	-	0.48	0.07	0.002	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W. 259 th Pl	12/28/2016	15.0	7.55	2.09	-	0.41	0.19	0.014	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Via.	12/28/2016	16.4	8.16	1.95	-	0.39	0.11	0.009	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/28/2016	16.9	8.16	2.03	-	0.31	0.15	0.008	ND	A	ND	2	MWD Only

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.